

CHAPTER 4

GETTING STARTED: PUBLICATION ISSUES FOR GRADUATE STUDENTS, POSTDOCTORAL FELLOWS, AND OTHER NOVICE ADDICTION SCIENTISTS

DOMINIQUE MORISANO, THOMAS F. BABOR, ERIN L. WINSTANLEY, AND NEO MOROJELE

INTRODUCTION

In recent years, there has been increasing pressure on graduate students¹, postdoctoral fellows, masters degree students, and even research assistants and lab technicians to write or co-author scientific publications. In some countries, the number of publication credits is now a key criterion for students' acceptance to advanced study, postdoctoral opportunities, and internship placements, as well as for the receipt of scholarships, fellowships, grants, and employment. More competitive universities sometimes urge students to compose theoretical papers and review articles, and to write up unpublished data from their research labs. In some countries, students are advised to publish articles while writing the monograph dissertation; in others, they are expected to focus solely on the production of a dissertation that will lead to (eventual) publication(s); in still others, dissertations are based on published articles. In any case, authorship is now at the forefront of issues faced in doctoral and post-graduate education in many countries.

This chapter presents issues that are particularly relevant to publishing as a graduate student or postdoctoral fellow, but anyone early in his or her publishing career might benefit from reading through the topics covered. The chapter begins with a discussion of general issues related to authorship, and then addresses the more specific topic of publishing graduate-level theses. The latter section focuses on the entire process of thesis publication, ranging from issues that might come up prior to writing one's thesis all the way to eventual post-publication submission to an appropriate journal. Our main sources of information on this topic come from North American universities, but the issues and solutions discussed below should be relevant to students at universities in other regions. In addition, special attention is given to the challenges encountered by students or novice investigators in less resourced countries.

GENERAL ISSUES

The challenges and rewards of publishing as a graduate student, postdoctoral fellow, or research assistant often include making authorship decisions, determining timetables, encountering ethical dilemmas, dealing with pressures to publish, opening doors for career advancement, and potentially gaining financial remuneration.

¹ Throughout the chapter, the term *graduate student* (interchangeable with the term *postgraduate student*) refers primarily to doctoral students, but might also apply to masters students and medical students who are incorporating research and/or theses into their studies.

AUTHORSHIP

As noted in Chapter 8, authorship of peer-reviewed journal articles is the "coin of the realm" in academic settings, although the ability to write even unpublished reports is a valuable asset in any work situation. For the great majority of graduate students, early-career authorship will only come from collaboration with faculty members², senior researchers, and supervisors. As such, both mentors and mentees should consider a number of ethical and practical issues that can arise (also see Chapters 11 and 12 for a discussion of ethical issues involved in authorship). At the heart of such faculty-student (or even supervisor-employee) collaborations lies an inherent power imbalance (Fine and Kurdek 1993; Murray 1998). Often, the faculty members with whom students have the most interactions (and thus the greatest chance to do research) are responsible for preparing letters of recommendation for those students, in addition to assigning their grades, providing them with critical feedback, and evaluating their work. Furthermore, many students start out with minimal experience and competence in publishing, and must rely on faculty support and guidance. Even if students and post-doctoral trainees are consulted during the process of assigning authorship, faculty members generally make the ultimate decisions on where (or whether) students are placed on the author list. Students who disagree with or misunderstand such decisions often fail to voice their opinions for fear of negatively influencing the ways in which those faculty members will evaluate them.

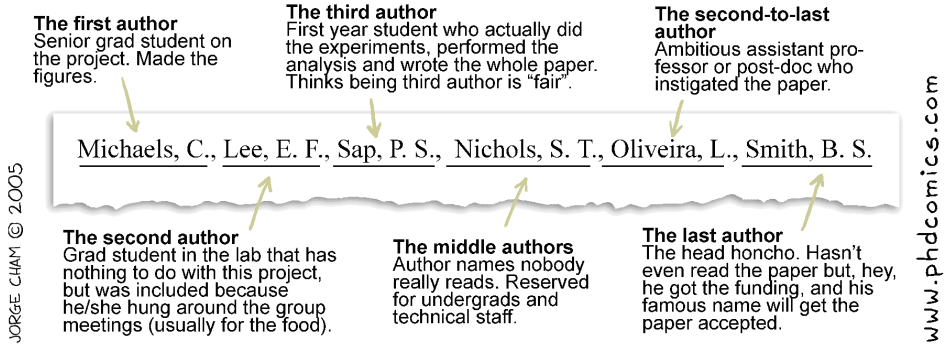
In addition, the academic level of the collaborating faculty member or supervisor can influence the authorship decision-making process. Senior faculty with established research grants might be more likely to give students on co-authored publications the opportunity for first authorship. With potentially bigger labs or projects and greater numbers of volunteers and research assistants, senior faculty might even provide their students with more chances to publish in general, handing over projects, ideas, and datasets to their mentees. In contrast, junior faculty members are often still under pressure to get their own names on publications in order to earn research grants and advance to higher faculty positions. As a result, they might be more concerned about sustaining and advancing their own careers than about taking time to help their students publish.

Box 4.1 provides a satirical view of authorship situations sometimes encountered by students who work on publications with more experienced or higher-ranked investigators. Although the cartoon might seem cynical, many students would agree that it is not very far from the truth in some research labs, centres, and departments. However, the procedures determining faculty-student co-authorship are likely to vary by discipline, institution, and even culture, and should ideally reflect a dynamic process that evolves as the authors revise and resubmit their article.

²For the general purposes of streamlining and efficiency, the term faculty member or faculty (as an adjective) is used throughout this chapter to represent any kind of higher education advisor, supervisor, teacher, or researcher who might otherwise be called a researcher, a lecturer (junior or senior), a professor, etc. It should be noted that, depending on the country and/or institution, different terminology is often used.

Box 4.1 "PILED HIGHER AND DEEPER" AUTHORSHIP CREDIT COMIC BY JORGE CHAM (2005)

THE AUTHOR LIST: GIVING CREDIT WHERE CREDIT IS DUE



Graduate students, postdoctoral fellows, and young professionals working in basic and applied research settings are often uninformed about acceptable procedures for deciding authorship within a given field or discipline. In addition, procedures seem to vary so greatly even within departments that it can be difficult to stay abreast of what constitutes acceptable practice. The availability of specific guidelines is indispensable to establish equal opportunities for student authorship and consistent procedures for student-faculty collaborations. As in the case of the more general issue of authorship (discussed above), there are specific guidelines available that can facilitate this process at some universities, and that can help to prevent problems from arising in the first place. Some examples of these guidelines are discussed below. If they are not readily available, however, it is often possible to adopt guidelines from another institution or professional society (see Chapter 8 for an example), especially when several students work with a sympathetic faculty member.

As a rule, graduate students should be the first authors of journal articles based on their thesis or dissertation manuscripts. Many disciplines and institutions enforce this broad principle. For example, the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2002) explicitly states, "Except under exceptional circumstances, a student is listed as principal author on any multiple-authored article that is substantially based on the student's doctoral dissertation" (Section 8.12). Further, the American Psychological Association indicates that faculty advisors should discuss publication credit with students as early as feasible and throughout the research and publication process. However, the "exceptional circumstances" mentioned highlight a universal grey area, and it is often the case that other factors might complicate seemingly straightforward authorship assignment, for instance when the graduate student's dissertation is based on part of their advisor's grant.

In line with changing times, several higher learning institutions have posted general authorship guidelines on their websites. In 1998, the University of Pennsylvania's Graduate Council of the Faculties (1998) put forth a policy (http://www.upenn.edu/grad/authorpolicy_alpha.html) requiring individual departments to develop and post guidelines regarding faculty student co-authorship in a way that reflects prevailing standards in each discipline, because different traditions of joint authorship exist in different disciplines and departments. Mandating such procedures within each graduate group clarifies expectations concerning authorship for both students and faculty members. Specific departmental guidelines cover such topics as authorship criteria (specific and general principles regarding the kind of work that warranted a publication credit), whom to consult in order to resolve disputes, and the issues that faculty should discuss with students when beginning joint projects. Examples of such issues include a) whether the graduate student would share authorship credit, b) the order of authorship expected, c) the division of labour on the project, and d) when to revisit or review work that is being completed by each collaborating member of the pair or group. As of 2007, the website of the University of Alberta (Canada) included a similar set of guidelines, originally developed in 1996 (http://www.uofaweb.ualberta.ca/vpres_policies/nav02.cfm?nav02=11203&nav01=11159)

In general, with the expansion of the Internet as the primary tool of communication in most circles of higher education, website-posted policies appear to be an efficient and user-friendly way of spreading authorship guidelines to young investigators, although those from low and middle income (LAMI) countries might not have adequate access to the Internet (as discussed in a later section of this chapter). Harvard Medical School (1999; <http://www.hms.harvard.edu/integrity/authorship.html>), McGill University (1995; <http://www.mcgill.ca/researchoffice/policies/sponsored/policies/ethics/>), Washington University in St. Louis (2002; <http://www.wustl.edu/policies/authorship.html>), and the University of Cambridge (2002; <http://www.rsd.cam.ac.uk/about/policies/practice/>), among some others, also provide statements on authorship for members of their institutions, though they are rather brief in nature. The University of Pennsylvania and University of Alberta guidelines provide the best models for the development of similar policies in higher learning institutes across the world. Such university-wide policies are an excellent way to keep students, postdoctoral fellows, and faculty members informed about the most fair and equitable procedures to follow in joint authorship situations.

In what has become a US benchmark article for writings on student-faculty co-authorship, Fine and Kurdek (1993) produced a set of authorship guidelines based on the idea that both faculty and students should meaningfully participate in the authorship decision-making process. Fine and Kurdek recommended that supervisors and faculty collaborators should provide new students and post-docs with information about how authorship decisions are made at the very initiation of joint projects. They also put forth a series of specific and potentially controversial recommendations about student authorship, arguing, for example, that supervisors cannot and should not expect as much from students as from experienced professional colleagues.

Instead, the authors suggested that there should be a different standard for the level of professional contribution required by students to attain a given level of authorship credit within a student-faculty collaboration. At the same time, however, they maintained that student contributions must be professional in nature: that is, creative, intellectual, and integral to completion of the paper. Examples of such contributions might include developing the research design, writing sections of the manuscript, integrating diverse theoretical perspectives, developing new conceptual models, designing assessments, contributing to data-analysis decisions, and interpreting results. Other tasks such as entering data, carrying out statistical analyses specified by the supervisor, and typing a manuscript might warrant footnoted acknowledgement, but they would not, according to the authors, deserve authorship credit. Fine and Kurdek suggested that supervisors and students decide early in the publication process what combinations of professional activities would merit a given level of authorship credit for both parties.

Fine and Kurdek (1993) raised a variety of issues and case scenarios surrounding authorship in faculty-student collaborations that are still relevant in the fifteen years since their article was first published. Chapter 8 of this edition of *Publishing Addiction Science* is a direct response to articles like this, as well as to the diverse but brief and scattered array of individual university guidelines mentioned above. Students, postdoctoral fellows, and other early investigators in the process of article publication should refer often to the general set of very practical authorship guidelines provided in this chapter. These guidelines span the planning, drafting, and finalization stages of authorship. Indeed, Chapter 8 is an ideal place for beginning researchers to refer as they try to determine where (or if) they should appear on the papers of projects on which they have worked. The chapter touches on potentially controversial issues, such as what constitutes a substantive authorship contribution? For example, if a graduate student has developed, coordinated, and carried out a research project for a mentor or supervisor, but did not come up with the original idea, analyze or interpret the resulting data, or participate in the writing of the ensuing manuscript, does he or she deserve to be listed as an author on publications arising from the project? According to the recommendations in Chapter 8, the answer is no, as there is no involvement in the writing process (and to be an author, one must write!). However, one might argue that this student should at least be given the option of contributing in a more substantive way to the publication process in order to earn authorship. Students might also want to explicitly express their interest in being involved in future publications.

In summary, it is clear that there is a great amount of room for improvement in the authorship game for students, postdoctoral fellows, and early investigators. Furthermore, the opportunities to learn about this area are unlimited. The mentorship of a seasoned investigator can provide his or her students, postdoctoral fellows, or other trainees with a golden opportunity to learn how the publication process works. Unfortunately, the learning process has not been clearly documented in terms of student and young investigator rights, responsibilities, and roles. While progress has been made in clarifying the issues and formalizing some long overdue policies, much remains to be done at both the level of the academic institution and the level of the individual faculty and student. At the very least, the sharing of articles and chapters

such as this one might help to raise awareness of the issues and how to deal with them.

PUBLISHING ONE'S THESIS OR DISSERTATION

For most addiction researchers and clinicians, graduate school represents the first opportunity to publish, whether the material is from a research project, a master's thesis, or part of the doctoral dissertation. As noted above, there are many incentives to begin publishing early, particularly for those who are interested in pursuing academic careers. Given the amount of work that is invested in the preparation of a thesis or dissertation, this is often the ideal place to begin one's publication career. The following section describes the publication process.

BEFORE WRITING ONE'S DISSERTATION: FORMAT CONSIDERATIONS

There are several different doctoral dissertation formats, which vary in acceptability depending on the country and the university in which they are written. Two of the more popular formats are the monograph style and the separate manuscript style. Many graduate programs increasingly favour dissertations that depart from the traditional monograph style and instead facilitate the translation of the dissertation into publishable manuscripts. The manuscript style of dissertation, while it might have different names, generally requires that chapters be written in article format. For example, at the Johns Hopkins Bloomberg School of Public Health, a student can write either a traditional monograph style dissertation or a "three-paper option." The latter format requires that three of the dissertation chapters take the shape of publishable manuscripts, with one chapter usually serving as a literature review, and two chapters comprising empirical analyses. Some universities require that the resulting "papers" be submitted for publication as part of degree requirements; others require that they already be published (and perhaps supplemented with a synthesis or independent introduction).

The extent to which manuscripts need to be inter-related and reflect a single focus of research, as in a monograph-style dissertation, varies across different institutions, departments, and advisors. It is contingent, in part, on the clarity of the institutional guidelines provided. Anecdotal evidence suggests that the rules are not concrete. Furthermore, if one is writing a literature review chapter, it is helpful to keep in mind that the majority of addiction journals do not accept unsolicited review papers, and that getting this type of manuscript published can be a special challenge.

If one has the opportunity to choose which dissertation format to take, it is important to consider the benefits and particular challenges of a style that is meant to facilitate the publication process³. For example, even if one chooses to write one's thesis in the manuscript style, resulting chapters might still require significant revision if they need to be shortened and formatted later for a particular journal, and written with a broader audience in mind than one's dissertation committee (Chamberlin 1999).

³In the Nordic countries (Norway, Sweden, Finland, Denmark), dissertation articles must be published before the dissertation can be passed.

IN THE TRENCHES: WRITING ONE'S DISSERTATION WITH PUBLICATION IN MIND

While writing the thesis or dissertation, it might be helpful to think about whether or not it will eventually be suitable for journal publication. If the answer is yes, then several issues arise that should be addressed sooner rather than later. For instance, if one hopes to publish one's data in a particular journal when the thesis requirement has been completed, it might be useful to consider the intended audience of that journal early on (See Chapter 2 for issues related to choosing a journal). One might also tailor the writing and formatting style of the dissertation towards specific journal requirements (Luey 2004). Even if a journal has not yet been identified, the audience can be narrowed down (e.g., to clinicians or policy makers) in a way that can help refine the scope of the manuscript.

Furthermore, it is likely that a significant amount of time will lapse between creating initial drafts of one's dissertation and preparing to publish the content in a journal. Accordingly, it will be important to maintain adequate documentation of analyses and datasets. The lengthy combined process of writing one's dissertation and preparing a future manuscript could result in the situation where, anywhere from months to years later, a journal reviewer (or even committee member) requests that data analyses be revised or substantially expanded. While this issue should be relevant to all authors, the significant time that it takes to complete the dissertation amplifies the importance of keeping an adequate record of completed work.

In sum, the wise student will balance dissertation requirements with potential journal submission requirements. This is not always easy. Dissertations typically require a much higher level of detail than most journal manuscripts. This means that significant portions of the dissertation will need to be reduced, edited, and streamlined for publication. Writing style might also need to be altered depending on the intended audience (e.g., dissertation committee vs. journal editors and reviewers vs. the scientific community-at-large). There are benefits to this process, however. Chamberlin (1999) notes that the process of converting dissertations to publishable articles teaches graduate students not only to summarize research findings in a succinct manner, but also how to communicate to a broader audience than faculty and committee members.

As one works during those final dark hours to make last-minute edits and cross-check references, keep in mind that in addition to fulfilling degree requirements and contributing to scientific advancement, all of one's hard work can be directly applied to making progress on the career front. Writing the dissertation with publication in mind makes these connections all the more salient.

PREPARING FOR PUBLICATION

Once the dissertation has been approved, and the appropriate celebrations have commenced, the time for publication is nigh⁴. Frequently, suggestions made during the final dissertation defence will be relevant to the initial stages of preparing for publication. During this phase, several issues will inevitably come to the surface.

⁴For students at some institutions, the dissertation articles must be published before the dissertation can be approved, and publication must therefore be prepared at an earlier stage.

The first is authorship. As discussed above, the student should be the first author the majority of the time. In the case of multiple authors, institutional and disciplinary guidelines, or even the authorship chapter in this book (See Chapter 8), can help to determine authorship order. If committee members are to be invited as potential co-authors, it should be made clear that all authors are required to have made substantial contributions to the journal manuscript itself, as opposed to simply "being a part" of the dissertation development conversation. Given the fact that many journals now require written statements that specify authorship contribution, this is no longer just a traditional courtesy.

Assignment of authorship is a dynamic process that will depend on the amount of time that has lapsed since graduation, the extent of revisions required for publication, and the context in which those revisions are being made. For example, revisions are sometimes required at the final stage of the dissertation approval process, and it might not be feasible to anticipate the target journal until after graduation. If substantial revisions are requested, the opportunity might arise to seek expertise outside of the dissertation committee. The recruitment of new co-authors can offer several advantages. First, fresh insight might facilitate the process of tailoring a manuscript for a particular target audience. Alternatively, external experts might be able to address weaknesses in a manuscript that fall outside the new graduate's field knowledge.

One should also consider the publication of the dissertation itself, with or without an accompanying short-form article. This is a requirement at many European institutions. Some graduate programs might recommend and provide structured guidance regarding the process of indexing the dissertation, copyrighting dissertation materials, and publishing the dissertation as a complete document. Alternatively, there are an increasing number of low-cost opportunities to publish one's full work on the Internet. A sampling of websites offering this possibility is presented in Box 4.2. For example, Dissertation Abstracts Online indexes dissertation abstracts and disseminates the data across a wide range of literature search engines. ProQuest Dissertations and Theses allows new graduates the option to purchase a permanent URL for dissertation abstracts; this can be useful for citation purposes. Other sites offer interested readers the choice to either download or receive a paper-copy of a dissertation for a nominal fee.

In general, however, if one is looking to reach the widest audience, writing the dissertation in manuscript style can facilitate the process of actually achieving one or more timely first-author publications. Finding the time for even one paper can be difficult after graduation, when important life changes (e.g., finding or starting a new job, starting a family, catching up on things that might have been on hold during graduate school) are often inevitably competing for one's time. This is why a post-doctoral position, when available, offers an ideal solution: the very nature of the job often includes the development of publications as a primary goal. Further, depending on the area of research covered, post-doctoral research positions that are limited to 1 to 3 years might not allow a sufficient amount of time to be a part of a new project from inception to publication. Therefore, entering the position with one's own dissertation to publish provides an immediate publishing goal.

Box 4.2 ONLINE DISSERTATION INDEXING AND PUBLISHING RESOURCES

1. UMI Dissertation Publishing (<http://il.proquest.com>)
 - a. ProQuest Dissertations & Theses (PODT) database
 - b. American Doctoral Dissertations (ADD)
 - c. Masters Abstracts International (MAI)
 - d. Dissertations & Theses @
2. Dissertation Abstracts International (DAI)/Comprehensive Dissertation Index
3. Networked Library of Digital Dissertations and Theses (www.ndltd.org)
4. Theses Canada Portal (<http://www.collectionscanada.gc.ca/thesescanada/index-e.html>)
5. DissOnline (<http://www.dissonline.de/index.htm>)
6. Die Deutsche Bibliothek
7. Database of African Theses and Dissertations
8. Networked European Deposit Library (<http://nedlib.kb.nl>)
9. Google Scholar (<http://scholar.google.com/>)

PUBLICATION TIMELINES

Some supervisors and faculty members feel that it is important to set limits on the time that a student has to publish his or her thesis or project data in a scholarly journal. When this time limit is expired, it is thought that the right to publish these data should be forfeited to the faculty supervisor or members of the dissertation committee. It is a common belief that if work is not published in a timely manner, it is unlikely to be published at all (Rudestam and Newton 1992). In most cases, the student should have the right to publish his or her results, even with considerable delays. However, if the timely dissemination of important scientific findings is at the root of such policies, then these procedures are probably warranted. Graduate students sometimes lose interest in publishing thesis and project data after their projects have been defended (or even before!), and important or interesting scientific results are often buried under more salient tasks at hand (e.g., seeking full-time employment). Regarding specific policies, this is an issue that supervisors and dissertation-committee members should discuss with their students early in the process of collaboration. Perhaps the most reasonable solution for the various parties in these cases is to designate a mutually agreeable time period together, and then sign a written agreement that would bind them to it.

One example of an individual professor's policy that was put together and published on the Internet is that of Karl Wuensch, PhD (2006, East Carolina University, <http://core.ecu.edu/psyc/wuenschk/thauth.htm>). On his website, Professor Wuensch clearly states his policy regarding timeliness of publication for student theses. For example, if the thesis is the student's idea, the student does most of the work (i.e., collects and analyzes the data, writes the manuscript), and the manuscript is prepared within 18 months from the date of the initiation of the research or one year from the date of the defence of the thesis, then the student is the first author. If warranted by their contributions, the thesis director and other committee members might also be listed as authors. However, if the student does not complete the research, including defending and depositing the thesis and preparing the manuscript for submission for publication

within the time limits mentioned above, then all rights to use of the data from that thesis revert to the director of the thesis committee. On his website, Professor Wuensch also indicates procedures for other situations that might arise, for example, if the student-submitted manuscript is not accepted upon initial submission to a journal.

Professor Bruce M. Shore, an educational psychologist at McGill University (Montreal, Canada), took this process a step further, and created a formal contract (Shore, 2007) covering various supervision matters such as authorship order, publication credit, and general responsibilities of both the advisor and the student within the supervisor-supervisee relationship. He requires that all of his students read, discuss, and sign the contract prior to agreeing to work with him, and he often raises the issues involved with authorship before projects even germinate. He agreed to share his contract as an example of an advisor-advisee agreement for the purposes of this chapter (see Appendix 4.3). The process outlined in the box might even be described as refreshing, for regardless of whether a student agrees with the various conditions of the contract, at least the issues are discussable and out in the open from the very onset of the mentor-mentee relationship.

Moreover, in the discussion of publication timelines, it is important to remember that there are always exceptions. If one fails to publish one's article within the agreed-upon period, despair is not the only alternative. As long as steady progress is shown, the pressure that might come from thesis advisor(s), co-authors, and committee members can be reduced. Sometimes the issue lies not even with one's own progress, but with getting co-authors to respond in a reasonable amount of time. While all authors might struggle with the multiple-author publication process, novice writers in particular must learn to develop effective strategies, ideally from their advisors. A basic word of advice is to set specific time frames for co-authors with concrete deadlines and frequent email reminders. If response time becomes highly unreasonable, a direct conversation with these authors about their place on the manuscript might become necessary.

FINANCIAL REMUNERATION

Conversations about financial remuneration can arise in the creation of a manuscript. Some faculty and supervisors feel that students who are paid as research or graduate assistants should not be given authorship because credit for performed work is being given in the form of a salary. These same faculty members often feel that publication credit replaces the need for financial remuneration, as the students will ultimately benefit from having their name listed on a paper. Fine and Kurdek (1993) are firm in their position that paying a research assistant or graduate student should not substitute for authorship credit, where credit for professional and intellectual contributions is due. The controversy surrounding financial remuneration clearly indicates that this topic should be covered when creating institutional and departmental guidelines surrounding authorship procedures. In light of the authorship criteria discussed elsewhere in this chapter and in Chapter 8, it is clear that neither financial reimbursement nor its absence should be considered in the determination of authorship credits.

THE NITTY GRITTY: SUBMITTING A MANUSCRIPT AND THE FIRST REJECTION

After carefully choosing a target journal (see Chapter 2 for advice), one should normally write a cover letter to the journal's editor and a brief description of the manuscript. Some journal editors might have sympathy for novice writers when sending back written feedback (e.g., by providing more detail), so one's inexperience could potentially be worth noting in the cover letter. One should be mindful that some journals require specific content in the cover letter (e.g., word count or a statement of conflict of interest), so author guidelines should be consulted ahead of time. These are most often found either in the paper copy of the journal itself, or in "instructions for authors" on journal websites.

Even for the most fastidious researchers and stellar writers, the dreaded day will likely arrive when a rejection letter arrives in the mail. If the rejected work is based on one's dissertation data, the decision can be particularly devastating, given the time and energy invested (and all of issues considered above). It is therefore important to realise that rejection is simply a part of the writing and publication process, and to know that even senior researchers have manuscripts rejected from time to time. It is surprisingly easy to forget that if one is reaching for the stars and submitting to a competitive journal, acceptance rates are low. The most productive step to take upon rejection is to read the reviewer feedback, incorporate it as much as possible into a new draft, and try, try again (at another journal, unless resubmission is specifically invited). Box 4.3 provides a first-person account of how one of the authors reacted to her first rejection letter, and what she would have done differently in retrospect.

Box 4.3 DEALING WITH REJECTION (BY NEO MOROJELE)

Shortly after the defence of my doctoral thesis, I prepared and submitted an article that was based on my PhD studies to a journal for publication. I was extremely dejected upon receiving the rejection letter from the journal's editor. This rejection led me, unreasonably, to question the quality and validity of my doctoral work, to which I had devoted hard work, many years, and much energy. My feelings were compounded by the fact that I had already been involved in the publication process--as a minor co-author of work from previous research assistantships, and as a primary author of papers based on earlier stages of the doctoral research. I could not understand why the final product (my doctoral dissertation) was not as worthy of publication as pieces of work that I considered to be less complete. At the time, I was not at all familiar with the range of possible reasons why articles might not be accepted for publication on first submission, or at all (see Chapter 9 for a discussion of this topic). If faced with the same situation today, I would welcome the feedback (often both valuable and valid), revise the paper accordingly, and submit it to another (perhaps more appropriate) journal. Knowing about the process of rejection ahead of time can simultaneously temper hurt feelings and facilitate a productive response.

SPECIAL ISSUES OF RELEVANCE TO STUDENTS AND YOUNG INVESTIGATORS FROM LOW AND MIDDLE INCOME COUNTRIES

Thus far, this chapter has focused on publication issues that are likely to be most relevant to those from resourced countries with an established scientific community in the addiction field. Students and junior investigators in less resourced countries face a number of different issues related to conducting and disseminating research data. The following section addresses the special challenges encountered by students and novice addiction researchers from low- and middle-income (LAMI) countries, as well as those from LAMI countries who have received their degrees from universities in developed countries and have then returned to a developing country. There is an important need at both the national and international levels to publish research on addiction issues that is relevant to countries outside of Europe, Australia, and North America. High-quality dissertation research can have a major influence on addiction science. Those from LAMI countries have a particularly strong obligation to conduct research and publish the results, given the importance of research for shaping the policy agenda and influencing programmes in these countries.

Indeed, much of the existing knowledge about which policies and treatments "work" for addressing addiction-related problems is based on studies conducted in North America, Europe, and Australia. Research conducted in LAMI countries can help to determine whether those policies and treatments popular in the developed countries have the same impact in other parts of the world.

GENERAL CAPACITY CHALLENGES

Publishing in countries with minimal research infrastructure is particularly challenging because publishing often takes a back seat to the tasks directly related to conducting the research. The final product is more often a report for a local or national agency than a formal journal article. Reports are an important mechanism to communicate research findings. However, redrafting some of these reports as journal articles would allow the data to reach a broader scientific audience.

Finding the opportunity to redraft reports under such work constraints can be a significant, albeit surmountable, challenge. If the immediate work environment does not provide novice researchers with sufficient opportunities to learn how to write for journal publication, external resources can help to fill that gap. For example, the International Society of Addiction Journal Editors (ISAJE) has developed a writing mentorship program that provides novice writers with the opportunity to be mentored by senior researchers (see www.isaje.net for more information).

In South Africa, as in many other LAMI countries, the capacity of individuals to conduct and publish research varies considerably across institutions. In many academic environments, pay is low, teaching loads are high, and faculty members have competing demands on their time that prevent them from writing up their work. For example, personal financial constraints might compel academics to undertake other

activities, such as seeing private patients, to supplement their incomes. Further, academics in LAMI countries often have minimal staff support and conduct the bulk of their research work unassisted. Researchers in better-resourced environments are more likely to have staff to assist them with many of the activities that are required to write and submit papers for publication (e.g., literature reviews, data entry, data analysis).

Some researchers from LAMI countries might at times fear that the standard of their work does not meet the current requirements of certain journals. With the development and utilisation of increasingly sophisticated equipment and statistical techniques in higher-income countries, the perception might arise that any research that is not state-of-the-art is not publishable. This is surely not the case, however. As stated above, research from LAMI countries provides policymakers in the arena of substance use and abuse with culturally and contextually specific data and evidence-based treatments. When implementing laws, treatment policies, or new research projects in South Africa, for example, it is undoubtedly more useful to have an understanding of the research, population, and resources as they have been studied in South Africa versus, for example, Canada. Further, it is important for researchers in Europe, Australia, and North America to have a more global perspective when developing their own research protocols and policies. Finally, exposing researchers from non-LAMI countries to researchers from within LAMI countries might lead to invaluable investigative collaborations by addiction scientists from different countries with similar interests and research goals. By regularly reading journal articles, attending conferences, and making external contacts with more resourced investigators, researchers from lower-income countries can not only gain exposure to the varied types of research that are being conducted internationally, but also gain confidence in the unique value of conducting and publishing research in a less-resourced country.

Supervisors of students and new researchers have an important role to play in the guidance and encouragement of their mentees through the publishing process. Advice on ways of preparing and writing up one's research findings in a manner that is likely to appeal to journal editors and reviewers can be useful to those who are used to writing brief reports, theses, or school papers. Supervisors can also provide valuable input on how to deal with rejections, address reviewers' concerns about submitted articles, and revise and resubmit manuscripts. In the case where one's supervisor might not yet have developed a strong publication record, it might be worthwhile to diplomatically negotiate working alongside a fellow faculty member who is more familiar with the process of publication.

TOPICS TO WRITE ABOUT

Considering the relative lack of studies coming out of many developing countries in a multitude of research areas, there are, theoretically, ample topics on which to publish. For those who have recently completed their dissertation or thesis, the question of what to write about is easily answered. Nevertheless, people in government agencies, clinical settings, and nongovernmental organizations might not have access to research findings to publish. Fortunately, there are many forms of non-research-related articles that may be published, including case studies, letters, and policy and opinion pieces, all

of which can potentially stimulate public debate and influence policies. Before writing or submitting a new piece, especially one that is not based on hard data, it might be a good idea to read through the content of some relevant journals and acquaint oneself with their missions, areas of interest, and specific types of articles accepted for publication.

SELECTING AN APPROPRIATE JOURNAL

As indicated in previous chapters (see Chapter 2 in particular), there is a plethora of addiction journals to which one can submit one's manuscript for publication, but the selection of the "right" journal can present special challenges for those from LAMI countries. A number of competing considerations might influence the choice.

First, many academics are under pressure to publish in "high impact" peer-reviewed journals (see Chapter 2 for a discussion of impact factors). In South Africa, for example, this is particularly true for those in academic institutions that receive government subsidies based on the number of peer-reviewed publications produced. Moreover, in many institutions, the "rating" of academics and their potential for promotion is dependent on their publication records.

Second, the audience one would like to reach can influence journal choice, and the journal that best serves that purpose might not always be of a high standard. Authors might be put in a position where they have to choose between publishing in a "high impact" international journal, thereby furthering their research careers, or publishing in a "low impact" journal that reaches the public health audience of interest for the country. In some cases, however, a middle-ground solution can be reached (i.e., publishing one's papers in both types of journals, provided the right conditions are met; see Chapters 2 and 3 for a discussion of this topic). Third, the topical focuses or missions of different journals also influence one's choice. Some journal reviewers and editors might not have an interest in studies of non-American or non-European populations. Prior scanning of the contents of the journal being considered can help one to gauge the likelihood of interest in a non-European or North American health or addiction issue.

LANGUAGE

Many times a manuscript is rejected by a journal not because of the quality of the work itself but because of the authors' failure to express their ideas clearly. For some people whose first language is not English, writing up one's work can be difficult. Writing in English can even be a challenge for individuals who have attended English-language academic institutions, and who have written their theses or dissertations in English. Converting the dissertation or thesis to the shortened format required for most journals is additionally difficult and time-consuming when working in a second or third language, and can considerably slow down the time to publication. To address these language constraints, one could ask someone who is more fluent in English to assist in the editing of one's work. Some journals are willing to provide authors with editing assistance prior to submission. It might also be helpful to invite a native English

speaker as a co-author. International conferences, when one has the financial means to attend them, can be a good forum for interacting with potential co-authors. In choosing a native English speaker as a co-author, however, it is important that this person be available and actively involved in the writing process. Chapters 2 and 3 of this volume discuss these issues in more detail.

ACCESS TO LITERATURE AND THE INTERNET

In many academic and other institutions, suboptimal access to journal articles, books, and other relevant literature is a major challenge that can hinder research and publication completion. This is particularly true for researchers in government or non-governmental organizations, where publishing is usually not a priority. Further, many academics do not have easy access to online journals because (a) they have unreliable connections to the Internet, (b) their institutions do not own subscriptions to the required journals, or (c) they might not know that some journal articles can be accessed online for free or at a reduced cost. Even paper copies of articles and other literature often have to be ordered via interlibrary loan systems that may be slow, costly, and unreliable. The Health InterNetwork Access to Research Initiative (HINARI) is one of several programs that have attempted to directly address such difficulties. HINARI provides free or reduced-cost online-journal access to health workers and researchers from local, not-for-profit institutions in low or lower-middle income countries. More information about eligibility criteria, instructions for access, and related initiatives is available on the HINARI website (<http://www.who.int/hinari/en/>). See Chapter 2 for additional discussion of online resources.

The lack of consistent and reliable access to the Internet also causes problems at the stage of submission of journal articles, which increasingly occurs online. This process can be lengthy even for those with good Internet access. Establishing collaborations with researchers who have better access to these resources might, in some cases, help to address this challenge.

CHALLENGES OF REJECTION

As noted above, it is quite common for manuscripts to not be accepted for publication on first submission. Papers from non-European and non-North American settings are sometimes rejected because the reviewers and/or editors are unfamiliar with the significance of the piece of research for the setting to which it applies. In such cases, authors may exercise their right to appeal the rejection of their paper if they believe it is based on ignorance on the part of the editor and/or reviewers. In preparing such an appeal, it might be helpful for the authors to include information that specifically addresses the significance of the research.

COMMENT: BE OPTIMISTIC

At the present time, despite the significant challenges addressed above, the relative lack of research from LAMI countries might be seen as an advantage for novice addiction scientists from those countries who are setting out to conduct research and begin their publishing careers. These researchers might be able to claim that their

research has never been conducted or replicated before outside the developed world. Further, most of the aforementioned difficulties are surmountable, as evidenced by the current productivity of many academics working in under-resourced settings.

CONCLUSIONS: TAKE THE LONG VIEW

A career in addiction science is not for everyone, but it can be very rewarding for those who have the motivation and the aptitude (see Edwards 2002). The best way to start out is to try to publish one's dissertation, work closely with one or more well-published investigators, hone one's writing skills, and find a place for postdoctoral research or clinical training. Full-time research scientists are not the only ones who enjoy the rewards of publishing. Those who work in clinical settings, government agencies, and other organizations often find that journal publications are not encouraged, but neither are they likely to be discouraged. There is no reason not to try, and there are many reasons to proceed with the attempt.

The writing process from student to postdoctoral fellow to junior researcher is generally the same, although the level of autonomy certainly increases with each transition.

Greater autonomy is usually accompanied by more security regarding one's place in the publication process and an increased ease in negotiating authorship order. In this chapter, some basic guidelines have been outlined for inexperienced authors. It is important to keep in mind, however, that there is no magic formula for guaranteed publication. In the simplest of terms, one should find a good mentor and practice, practice, practice.

REFERENCES

American Psychological Association (2002). Ethical principles of psychologists and code of conduct. Website: <http://www.apa.org/ethics/code2002.html> (Last retrieved on 3 February 2008).

Cham, J. (2005). The author list: Giving credit where credit is due. Piled Higher & Deeper: A Grad Student Comic Strip. Website: <http://www.phdcomics.com/comics/archive.php?comid=562> (Last retrieved on 3 February 2008).

Chamberlin, J. (1999). Unpublished? Try your dissertation. APA Monitor Online, 30 (11). Website: <http://www.apa.org/monitor/dec99/ed1.html> (Last retrieved on 3 February 2008).

Edwards, G., ed (2002). *Addiction: Evolution of a Specialist Field*. Oxford, UK: Blackwell Publishing.

Fine, M. A., & Kurdek, L. A. (1993). Reflections on determining authorship credit and authorship order on faculty-student collaborations. *American Psychologist*, 48, 1141-1147.

Harvard Medical School Office for Research Issues (1999). Authorship guidelines. Website: <http://www.hms.harvard.edu/integrity/authorship.html> (Last retrieved on 3 February 2008).

Luey, B. (2004). *Revising your dissertation: Advice from leading editors*. University of California Press.

McGill University Research Policy Committee of the Faculty of Graduate Studies and Research (1995). McGill University policy on research ethics: Collaborative research. Website: <http://www.mcgill.ca/researchoffice/policies/sponsored/policies/ethics/> (Last retrieved on 3 February 2008).

Murray, B. (1998). The authorship dilemma: Who gets credit for what? *APA Monitor*, 29(12). Website: <http://www.apa.org/monitor/dec98/credit.html> (Last retrieved on 3 February 2008).

Rudestam, K. E., & Newton, R. R. (1992). *Surviving your dissertation: A comprehensive guide to content and process*. Newbury Park, CA: Sage Publications.

Shore, B. M. (2007). Mutual expectations regarding research supervision (Contract). High Ability and Inquiry Research Group, Department of Educational and Counselling Psychology, McGill University. Electronic copy retrieved directly from author.

University of Alberta Faculty of Graduate Studies and Research Council (1996). Intellectual property policies: Guidelines for authorship. Website: http://www.uofaweb.ualberta.ca/vpres_policies/nav02.cfm?nav02=11203&nav01=11159 (Last retrieved on 3 February 2008).

University of Cambridge (2002). Good research practice: Dissemination and publication of results. Website: <http://www.rsd.cam.ac.uk/about/policies/practice/> (Last retrieved on 3 February 2008).

University of Pennsylvania's Graduate Council of the Faculties (1998). Policy on fairness of authorship credit in collaborative faculty-student publications. Website: www.upenn.edu/grad/authorpolicy_alpha.html (Last retrieved on 3 February 2008).

Washington University in St. Louis (2002). Policies and procedures: Policy for authorship on scientific and scholarly publications. Website: <http://www.wustl.edu/policies/authorship.html> (Last retrieved on 3 February 2008).

Wuensch, K. (2006). Thesis authorship: Karl Wuensch's policy. Website: <http://core.ecu.edu/psyc/wuenschk/thauth.htm> (Last retrieved on 3 February 2008).

Appendix 4.1 EXAMPLE OF A RESEARCH SUPERVISOR-SUPERVISEE CONTRACT (EXCERPTED FROM SHORE, 2007)

Mutual Expectations Regarding Research Supervision

High Ability and Inquiry Research Group

Department of Educational and Counselling Psychology, McGill University

These notes are designed as guidelines to facilitate positive and mutually beneficial student-supervisor relationships, and to avoid problems on matters such as authorship and credits on publications, the extent of participation in activities other than the Thesis, Research Project, or Special Activity, and future access to data collected in the course of our work together. Some of the activities described below may be conducted in groups. Where these notes hinder rather than help, they should be amended to meet mutually acceptable needs, in general or as occasions arise.

A. Supervisor's Responsibilities

1. Meet regularly with students and be contactable at other times.
2. Arrange substitute supervision during extended absences.
3. Advise on course selection.
4. Assist in the preparation for comprehensive or oral examinations.
5. Help prepare conference and journal presentations based on work done in the program and assist with applications for support to attend suitable conferences at a reasonable distance and on whose programs students can earn a place.
6. Help apply for funds to cover direct research costs and to provide stipends to full-time students.
7. Provide feedback within a mutually agreed time-frame on written work submitted for review.

B. Students' Responsibilities

1. Regularly pursue work and keep the supervisor informed of progress or problems.
2. To a mutually agreed degree that respects other responsibilities and priorities, contribute to advancing team activities that further the common good of all of us working together -- e.g., workshops for teachers, parent contacts, library orders, data bases, maintaining bibliographies and mailing lists, convening meetings, maintaining computers and supplies. These tasks will be equitably distributed.
3. Join in the preparation of conference presentations and publications on research and other activities done with faculty members.

4. With appropriate guidance, prepare a draft version of the thesis or major report, normally within 3 months of its final presentation for master's degrees, or 6 months for doctoral degrees; after that point the supervisor may take over such preparation and the order of authorship may be changed (with APA and McGill authorship guidelines).
5. Apply for scholarships and bursaries, especially FQRSC, McGill, and SSHRC (where eligible).
6. Participate to a mutually agreed extent in teaching-related activities such as the TA course.
7. Take a professional role in one's discipline by undertaking at least one student or regular membership in an appropriate professional or academic organization.
8. Keep at McGill a copy of raw data, coding sheets, instruments, and subject-identification data.
9. Upon graduation, leave with the supervisor a printed copy of the main research report, and an electronic copy in modifiable form (e.g., not PDF) of any data and the text of the thesis or project.
10. Use Microsoft Word and APA style for written submissions.
11. Report annually in writing on progress and contributions (department and university forms).
12. Regularly attend and participate in research-team meetings.

C. Joint Responsibilities

1. Give full credit for the contributions of others and to research funding in all products.
2. Assign authorship according to the latest APA publication guidelines. (For example, if a thesis topic or report is entirely the student's original contribution, then the advisor's contribution is due a footnote. Shared scientific responsibility calls for co-authorship, with the student as first author on the main points of the student's research or those for which the student took primary creative responsibility, and the advisor as first author on any specific subpoints which the advisor contributed or a broader study of which the student is part.)
3. Both have unlimited access to the data collected on or about the topic of a thesis or project during the time worked together, plus any other that may be agreed to, giving due credit to its origin either by footnote or reference to previous publications.

D. Degree Covered by this Agreement

E. Comments, Additions, or Special Notes

