Discover Special Edition

Misty Bailey
Editor

Follow this and additional works at: http://trace.tennessee.edu/utk_discovery

Recommended Citation
http://trace.tennessee.edu/utk_discovery/6

This Article is brought to you for free and open access by the Veterinary Medicine -- Other Materials (Newsletters, Reports, Etc.) at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Discovery Research Newsletter by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.
In most cases, scholars and publishers alike regard redundant publication as unethical and costly. What’s more, unless both the author(s) and the publisher have agreed to make an exception, duplicate publication may also violate copyright laws.

The main objection to this standard relates to the way original research articles are counted and/or weighted. Redundant publication may result in “double counting” or inappropriate weighting of the results of a single study, which distorts the available evidence.1

Generally, publishers allow printing of closely-related material that has already been presented at a conference, printed on a poster, or published as an abstract in proceedings. However, the length of that poster or abstract might prevent some future publication opportunities.

One example of many journals that now limit previous abstract lengths is the Journal of the American Veterinary Medical Association.

JAVMA’s author instructions indicate that a previously published abstract over 250 words may jeopardize publication. JAVMA’s scientific editors review such abstracts and make decisions on a case-by-case basis, but the editors automatically reject every paper for which an abstract over 750 words has been presented elsewhere.

However, for the American College of Veterinary Internal Medicine forum, the International Veterinary Emergency and Critical Care Symposium, and the American Association for Cancer Research conference, abstract instructions each allow at or above 350 words. Many other conferences follow similar guidelines.

While it is tempting to crunch as much information as possible into an abstract, using all the permissible space, it is responsible authorship to limit every abstract to 250 words if that abstract might be used later to publish a paper.

Nobody wants to be the person to tell several co-authors a paper cannot be published because it has been considered previously published as a long abstract.


Along those same lines, another common flag in an audit is grant funds used to produce preliminary data for a separate, unfunded project.2 The grant proposal, including the budget, should be treated as a virtual contract, and if collection of preliminary data is not in that initial contract, funds from the grant should not be used to support preliminary data collection for another project.

Although a system of checks and balances is in place at the university to help keep grant accounting in compliance with regulations, the principal investigator (PI) is ultimately the one in charge of administering the grant.

Sheri Burnette, financial specialist with the UTIA, suggests several routine steps to help PIs stay in compliance. First, she recommends timely recording of charges and adjustments to sponsored projects. In addition, all charges should be processed within 60 days after the project end date. Burnette also reminds PIs that facilities and administrative (F&A) costs should not be charged as a direct cost to the project. For example, salaries for clerical positions, office supplies, postage, maintenance, and utility charges are F&A costs in most circumstances and should not be charged as direct costs.

Burnette suggests all PIs periodically review university policy for sponsored grants and contracts (P10205). This can be found at http://www.tennessee.edu/policy.


What do you do?

Plagiarism. From the time people enter college, maybe even before, they learn to fear the word “plagiarism” perhaps even more than “cheating.” Everyone knows cheating is deceitful, but plagiarism evokes something more, something beyond simple deceit. Plagiarism, or taking someone else’s words or ideas and passing them off as one’s own, is more like stealing.

When writing your manuscript to publish the results of your research project, you may be tempted to type in or cut and paste some of the research you have done. Imagine you pay Dr. Demanding from Allknowing University to do some laboratory tests for your research project.

In this Issue
p2 Percent effort allocation
p3 Laboratory animal enrichment
p4 Online resources
p6 Abstract length

Abstract Length
May Limit Future Publication Possibilities

The Authorship Question

Imagine you pay Dr. Demanding from Allknowing University to do some laboratory tests for your research project. When writing your manuscript to publish the results, you realize you don’t know Dr. Demanding’s methods, so you ask him to describe them. He refuses unless he is made a co-author on the paper.

Seeing as one’s own, is more like stealing. Everyone knows cheating is deceitful, but plagiarism evokes something more, something beyond simple deceit. Plagiarism, or taking someone else’s words or ideas and passing them off as one’s own, is more like stealing.

Every scientist carries the fear of having a research idea usurped, and this universal fear, in part, motivates the implicit “publish or perish” atmosphere in academia. This fear is somewhat paradoxical, however: although the fear of plagiarism motivates publishable progress, that motivation can transform to overwhelming pressure, resulting in the perceived need to publish even when it is not honestly possible.

Nevertheless, there are no legitimate excuses for plagiarism, and the scientific community upholds its integrity by keeping the discussion of ethics in research ongoing, as we are doing here.

Specifically, plagiarism can be divided into two categories: 1. failure to acknowledge the source entirely and 2. failure to indicate exact wording with quotation marks, even though the source has been acknowledged.1 Internet plagiarism detection services like TurnItIn.com make it much easier for instructors to determine when students have plagiarized.

See p. 5.
Cutting Corners on Percent Effort Allocation Not Worth It

When an organization expends more than $500,000 of federal funding annually, a financial audit of its grant spending is required by law.

Considering just 17 faculty members in the college’s Center of Excellence in Livestock Diseases and Human health spent nearly $3 million in federal funding alone in 2006, it is obvious that UT is required to do annual audits. Understandably, federal funding agencies, and taxpayers in general, want to know that is being done with their money, which is why the university utilizes grants that fund applications have an additional detailed budget, regardless of agency requirements.

Following that budget, though, is just as important, as the University of Alabama at Birmingham (UAB) discovered in 2005 after it was asked to refund $3.39 million to the U.S. government. The U.S. Department of Justice contends that researchers at UAB overstated their percent effort allocation, a violation under the False Claims Act.¹

The most common grant accounting violations are related to improper reporting of percent (person months) of work effort, resulting in researchers devoting less time to the research project than they reported.² However, effort allocation can usually be changed from year to year as long as it is reported and approved by the funding agency.

See p. 6

Authorship from p. 1

The question of authorship was formally addressed by the Council of Science Editors’ (CSE) Task Force on Authorship. They looked at the personal, social, medical, and legal problems of biomedical authorship in an effort to determine some possible solutions.

The task force identified what they consider the two major problems of authorship: the “misattribution of credit and failure to take responsibility.”³ For the sake of brevity, we will focus on credit here. The International Committee of Medical Journal Editors (ICMJE) has specific guidelines for authorship: a true author, according to ICMJE standards, is “someone who has made substantial intellectual contributions to a published study.”⁴ Specifically, ICMJE recommends that all three of these conditions be met before including an author’s name in the byline:

• “substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data.”
• “drafting the article or revising it critically for important intellectual content.”
• “final approval of the version to be published.”

Furthermore, ICMJE asserts that an author should not be someone who only secured funding, collected data, or supervised a research group. As the CSE task force points out, though, senior researchers often devote much of their time to obtaining funding, and why they work to get funding if they were not to be included as authors?

The acknowledgement section is the place for the scientific advisors, according to ICMJE, and that is also the place to recognize purely technical writing help, animal care staff, and data collectors.

How do we ensure integrity in authorship reporting? That is yet to be decided in any level of surety. However, some journals, like JAMA, now require specific contributions of each author to be described, and these contributions are published with the article. JAMA sought to reduce the occurrence of honorary authorship and ghost writing (failing to identify a qualifying author), among other “deceptive practices.”

Still, there are no simple solutions. After all, faculty depend on publications for tenure, and funding sources award money to researchers who prove they can achieve results and report them, a process most easily measured by authorship. All these factors contribute to the decision of whether to include Dr. Demanding in that byline. And while we have no control over what Dr. Demanding demands of us, we can choose to make ethical decisions when it comes to our own names being in a byline.¹


How do we ensure integrity in authorship reporting?

Cryptomnesia from p. 1

For a fee, the TurnItIn service will check a downloaded document against common phrases and assign it a percentage from which students can get essays written about almost any topic they desire. The paper submitted for plagiarism detection also gets added to the TurnItIn database to help prevent what psychologist Carl Jung termed “cryptomnesia,” unconscious plagiarism resulting from forgotten memories.

Undoubtedly, animal-based research has significantly impacted the safety, longevity and quality of both human and animal life. Many, if not all, of us are the direct beneficiaries of advances that would have been impossible without the use of animals. As indebted recipients of such life-giving knowledge, we share the responsibility to ensure the appropriate and humane treatment of animal subjects.

Since the early 1960s, animal care and use programs in the United States have experienced rapid evolution. This growth, coupled with the public’s interest in the use of laboratory animals and the need for reliable data from animal subjects facilitated the passage of laws, regulations, policies, and standards effectively regulating animal use. First passed by Congress in 1966 and subsequently amended four times, the Animal Welfare Act and the accompanying animal welfare regulations mandate and describe the minimally acceptable standards of animal care; as a USDA-registered research facility, the University of Tennessee must comply with the standards set forth therein.

Additionally, because the university receives support through the U.S. Public Health Service (PHS) for animal-based activities, the institution must provide assurance of compliance with the PHS Policy on Humane Care and Use of Laboratory Animals and the Guide for the Care and Use of Laboratory Animals produced by the National Resource Council.

However, because animal welfare act regulations do not require psychological enrichment activity for any laboratory animal except non-human primates, one recent subject of interest in relation to laboratory animal care is maintaining an enhanced environment that may ensure better health and welfare for the animals.

In 2005, Benefiel, et al. questioned the benefits of what they call “housing supplementation” for laboratory animal well-being and research results. The authors remind us that the preferences of animals might not be what are best for their well-being. To see the authors’ point, we need only think about what a dog would do with a three-layer, chocolate cake if given the opportunity.

Benefiel, et al. worry that many of the suggestions for housing supplements may be based on animal preferences without research to support them. Furthermore, they assert that rats exposed to enriched environments within their own laboratory weigh more, eat more, and experience more rapid maturation of the long bones than the rats in un-enriched housing. Obviously, these changes could immediately confound experimental results within the same laboratory, between laboratories, and over time.

On the other hand, Weed and Raber call for a balance between “scientifically valid data [and] animal well-being,” citing a need for better documentation of environment in research reports to account for the variables. In addition, the authors have observed the rodents in their laboratories are less apprehensive and easier to handle when given enrichment like nesting material or chew toys.

A 2006 report on the effect of available activity for caged mice asserts that when housed in a larger cage with more activity options like a running wheel, mice experience less anxiety. This conclusion is based on the lower frequency with which mice self-administered an anxiolytic (anti-anxiety) drug placed in their drinking water. Mice in cages with unpredictable or no enrichment chose the anxiolytic more often than those in cages where enrichment activity was available.
General Resources

Ethical Conduct in Biomedical Research: A Handbook for Biomedical Graduate Studies Students and Research Fellows, 3rd ed. Published by the Biomedical Graduate Studies Program of the University of Pennsylvania
http://www.med.upenn.edu/bgs/documents/BIOETHICSHandbook4-04.pdf

Online Ethics Center for Engineering and Science at Case Western University
http://onlineethics.org/reseth/index.html
Contains essays, scenarios, and educational resources

Oklahoma State University’s “Conducting Research Responsibly”
http://compliance.vpr.okstate.edu/conducting%20research%20responsibly.pdf
While at times university specific, this two-page document provides general responsibilities for principal investigators in several different scenarios.

Grant Accounting Resources

National Institutes of Health Office of Extramural Research’s “Frequently Asked Questions Regarding the Usage of Personal Months”
http://grants.nih.gov/grants/policy/person_months_faq.htm

UTIA Sponsored Research Regulations & Cost Principles
http://taes.tennessee.edu/sponsoredresearch/regs.htm

Authorship Resources

Harvard Medical School’s “Authorship Guidelines”
http://www.hms.harvard.edu/integrity/authorship.html

Council of Science Editor’s Taskforce on Authorship white paper
http://www.councilscienceeditors.org/services/att_whitepaper.cfm

Laboratory Animal Resources

University of Tennessee Office of Laboratory Animal Care
http://www.vet.utk.edu/research/olac/

American Association for Laboratory Animal Science
http://www.aalas.org/index.aspx

Institute for Laboratory Animal Research
http://dels.nas.edu/ilar/ilarhome/
Cutting Corners on Percent Effort Allocation Not Worth It

When an organization expends more than $500,000 of federal funding annually, a financial audit of its grant spending is required by law.

Considering just 17 faculty members in the college’s Center of Excellence in Livestock Diseases and Human health spent nearly $3 million in federal funding alone in 2006, it is obvious that UT is required to do annual audits. Unfortunately, federal funding agencies, and taxpayers in general, want to know what is being done with their money, which is why the university requires that grant applications have an additional detailed budget, regardless of agency requirements.

Following that budget, though, is just as important, as the University of Alabama at Birmingham (UAB) discovered in 2005 after it was asked to refund $3.39 million to the U.S. Government. The U.S. Department of Justice contends that researchers at UAB overstated their percent effort allocation, a violation under the False Claims Act.

The most common grant accounting violations are related to improper reporting of percentage (person months) of work effort, resulting in researchers devoting less time to the research project than they reported. However, effort allocation can usually be changed from year to year as long as it is reported and approved by the funding agency.

See p. 6

How do we ensure integrity in authorship reporting?


Cryptomnesia

From p. 1

For a fee, the TurnItIn service will check a downloaded document against common documents, and if it finds that the student has used an unattributed text from a proposal they reviewed it if it was an oversight; 20% considered it ethical to accidentally copy ideas or text from published material with their own words. The majority of the respondents, however, were based on plagiarizing written texts. Still, there are no simple solutions. After all, faculty depend on publications for tenure, and funding sources award money to researchers who have proven they can achieve results and report them, a process most easily measured by authorship. All these factors contribute to the decision of whether to include Dr. Demanding in that byline. And while we have no control over what Dr. Demanding demands of us, we can choose to make ethical decisions when it comes to our own names being in a byline.


In most cases, scholars and publishers alike regard redundant publication as unethical and costly. What’s more, unless both the author(s) and the publisher have agreed to make an exception, duplicate publication may also violate copyright laws.1

The main objection to this standard relates to the way original research articles are counted and/or weighted. Redundant publication may result in “double counting or inappropriate weighting of the results of a single study, which distorts the available evidence.”

Generally, publishers allow printing of closely-related material that has already been presented at a conference, printed on a poster, or published as an abstract in proceedings. However, the length of that poster or abstract might prevent some future publication opportunities.

One example of many journals that now limit previous abstract lengths is the Journal of the American Veterinary Medical Association.

JAVMA’s author instructions indicate that a previously published abstract over 250 words may jeopardize publication. JAVMA’s scientific editors review such abstracts and make decisions on a case-by-case basis, but the editors automatically reject every paper for which an abstract over 750 words has been presented elsewhere.

However, for the American College of Veterinary Internal Medicine forum, the International Veterinary Emergency and Critical Care Symposium, and the American Association for Cancer Research conference, abstract instructions each allow at or above 350 words. Many other conferences follow similar guidelines.

While it is tempting to crunch as much information as possible into an abstract, using all the permissible space, it is responsible authorship to limit every abstract to 250 words if that abstract might be used later to publish a paper.

Nobody wants to be the person to tell several co-authors a paper cannot be published because it has been consider previously published as a long abstract.

More than 250 words may jeopardize publication

Accounting

from p. 2

Along those same lines, another common flag in an audit is grant funding used to produce preliminary data for a separate, unfunded project.2 The grant proposal, including the budget, should be treated as a virtual contract, and if collection of preliminary data is not in that initial contract, funds from the grant should not be used to support preliminary data collection for another project.

Although a system of checks and balances is in place at the university to help keep grant accounting in compliance with regulations, the principal investigator (PI) is ultimately the one in charge of administering the grant. Sheri Burnette, financial specialist with the UTIA, suggests several routine steps to help PIs stay in compliance. First, she recommends timely recording of charges and adjustments to sponsored projects. In addition, all charges should be processed within 60 days after the project end date. Burnette also reminds PIs that facilities and administrative (F&A) costs should not be charged as a direct cost to the project. For example, salaries for clerical positions, office supplies, postage, maintenance, and utility charges are F&A costs in most circumstances and should not be charged as direct costs.

Burnette suggests all PIs periodically review university policy for sponsored grants and contracts (FI0205). This can be found at http://www.tennessee.edu/policy.

The Authorship Question

Imagine you pay Dr. Demanding from Allknowing University to do some laboratory tests for your research project. When writing your manuscript to publish the results, you realize you don’t know Dr. Demanding’s methods, so you ask him to describe them. He refuses unless he is made co-author on the paper.

What do you do?

See p. 2

Avoid Falling Prey to Cryptomnesia

Plagiarism. From the time people enter college, maybe even before, they learn to fear the word “plagiarism” perhaps even more than “cheating.” Everyone knows cheating is deceitful, but plagiarism evokes something more, something beyond simple deceit. Plagiarism, or taking someone else’s words or ideas and passing them off as one’s own, is more like stealing.

This fear is somewhat paradoxical, however: although the fear of plagiarism motivates publishable progress, that motivation can transform to overwhelming pressure, resulting in the perceived need to publish even when it is not honestly possible.

Nevertheless, there are no legitimate excuses for plagiarism, and the scientific community upholds its integrity by keeping the discussion of ethics in research ongoing, as we are doing here.

Specifically, plagiarism can be divided into two categories: 1. failure to acknowledge the source entirely and 2. failure to indicate exact wording with quotation marks, even though the source has been acknowledged.1 Internet plagiarism detection services like TurnItIn.com make it much easier for instructors to determine when students have plagiarized.

See p. 5