

IJES

Case Study on the Development of the
International Journal of Exercise Science

T. Scott Lyons, Ph.D., co-founder and co-editor-in-chief of the
International Journal of Exercise Science, www.intjexersci.com

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About IJES

The *International Journal of Exercise Science* is a quarterly, online, open access publication dedicated to the dissemination of research in the areas of Exercise Science, Exercise Physiology, Human Performance, Kinesiology, and related disciplines. Dr.

James W. Navalta and Dr. T. Scott Lyons (the author), both Associate Professors of Exercise Science at Western Kentucky University, are the founders of the *International Journal of Exercise Science* (IJES).

IJES is a student-focused journal, in that the editors are specifically seeking research that is led by graduate or undergraduate students. Manuscripts submitted by professionals (defined as those holding a terminal degree) are also gladly accepted,

provided at least one student was involved in the project and is listed as a co-author. The review process includes both student and professional researchers.

This document is a summary case study on the origination, development, marketing and on-going management of this unique research journal.



The homepage of the *International Journal of Exercise Science*, supported by Western Kentucky University Libraries' TopSCHOLAR™.

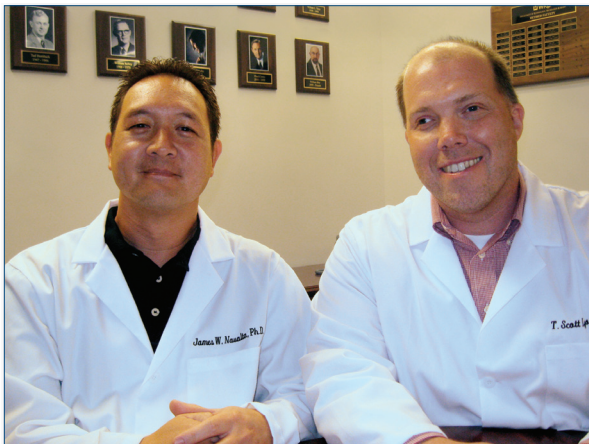
About the Editors and Founders

T. Scott Lyons, Ph.D.

Dr. Scott Lyons is an Associate Professor of Exercise Science at Western Kentucky University. He also serves as the Program Coordinator for the undergraduate and graduate programs in Exercise Science. Dr. Lyons completed his Ph.D. in Exercise Physiology from the University of Alabama in December 2003, and joined the faculty at WKU in August 2004. Prior to joining the WKU faculty, Dr. Lyons worked as the Fitness & Wellness Director at Fitness One, a medically based fitness facility in Tuscaloosa, Alabama.

Dr. Lyons' research interests have been primarily in cardiovascular physiology and metabolism, with specific interest in the metabolic differences between impact and non-impact exercise. Recently, Dr. Lyons has shifted his research focus to exploring the possible existence of various disease analog conditions in anticipation of being able to establish a model to determine if apparently healthy persons may be at increased risk for selected diseases.

In addition to his roles as a WKU faculty member and as Co-Editor-in-Chief of the *International Journal of Exercise Science*, Dr. Lyons is also currently working with two other colleagues on a new Fitness & Wellness textbook. In his spare time, Dr. Lyons enjoys exercising, various sports, and reading.



Dr. James W. Navalta (left) and Dr. T. Scott Lyons (right)

James W. Navalta, Ph.D.

Dr. James Navalta is also an Associate Professor of Exercise Science at Western Kentucky University. He completed his Ph.D. from Purdue University, his M.S. from the University of Nevada, Las Vegas, and his B.S. from BYU-Hawaii. Prior to joining the faculty at WKU in July 2006, Dr. Navalta held a position for three years at Southern Arkansas University.

Dr. Navalta's research interests have focused primarily on the effect of exercise on the immune system, specifically identifying the lymphocyte apoptotic and cellular migration contribution to exercise-induced lymphocytopenia that often occurs following bouts of physical activity. Dr. Navalta has also published on core stability exercise, as well as the impact of warm-up on volleyball skill performance relating to vertical jump.

In addition to his roles as a WKU faculty member and as Co-Editor-in-Chief of the *International Journal of Exercise Science*, Dr. Navalta enjoys mentoring promising students in the Exercise Physiology Laboratory. Dr. Navalta's spare time is dedicated to his wife and three children, and to training for half-marathons.

Origin of the idea

IJES didn't just have a modest beginning, it really started almost by accident... with a bit of good timing thrown in. During the spring semester of 2007, I had just received correspondence from a journal to which I had submitted a manuscript. While it was

“Have you ever just thought about starting your own journal?”

not a rejection of my work, per se, it was a notification that I should submit elsewhere, as that particular manuscript “didn't fit the scope of that journal.” I was a bit frustrated by that, as I evaluate the publications of a given journal before I submit to one, and my manuscript seemed to fit the scope just fine. Rather than going straight back to my office, I stopped by James' office and simply asked him, half-jokingly, “Have you ever just thought about starting your own journal?” He wheeled around in his chair and said, without hesitation, “Actually, yes I have.” Thus, the seed was planted for the *International Journal of Exercise Science*.

We immediately began discussing our ideas for a new journal, including:

- ▷ what the journal title should be
- ▷ publication format
- ▷ identifying the aims and scopes and the mission
- ▷ indexing in PubMed, SportDiscus, etc.
- ▷ marketing the journal
- ▷ how to engage students
- ▷ how to build a reviewer pool and editorial board

We identified the issues above in this initial impromptu discussion, then soon thereafter felt ready to move forward exploring our options for how we could get this project off the ground.

Getting started

James and I were unsure how we would actually be able to publish the journal. We knew immediately that a print version was out of the question due to cost. However, constructing a journal that would be published exclusively online was a possibility. The problem we wanted to avoid with an online journal was the possibility of a cheap, unprofessional look and feel to the finished product. Before investigating the cost of professional publishing software, we made a phone call to Connie Foster, the Department Head of Library Technical Services at WKU.

The previous week, a mass email had been sent from Connie's office to all faculty announcing that the library was about to add a service where faculty research and other creative activities could be uploaded for public access. We called Connie to investigate this further, particularly because we knew we wanted our prospective journal to be open access¹, and we thought she might be able to offer some insight on what we needed to do or who we might need to contact. It turned out that WKU was about to join Berkeley Electronic Press (bepress)'s Digital Commons network (DC), through which WKU would establish a research and creative activity database known as TopSCHOLAR². Connie informed us that our idea of starting a journal might be a perfect fit for WKU's TopSCHOLAR, where it would be hosted on the Digital Commons platform³, through affiliation with WKU.

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Bepress trained us on the mechanics of the journal platform via a webinar. As the platform was already in place and being used by other journals, the changes that we needed to make to customize it to our specific tastes were minimal.

For a title, we decided on the *International Journal of Exercise Science*. First, we definitely wanted the word "international," as our intentions were for the journal to publish research from students and professionals not only in the United States, but from any other country as well. Also, as the journal would be exclusively online, it would be available around the globe via the worldwide web. We chose the term "exercise science" as it is a broad enough term to encompass the numerous sub-disciplines we wanted to include under our title.

A minor unforeseen challenge was deciding on a unique URL for the journal site. As the journal would be hosted on the Digital Commons network through Western Kentucky University, it would already have a web address: <http://digitalcommons.wku.edu/ijes/>.

¹ "Open access" journals are free and available to any online reader, while closed access journals work on a traditional library-based subscription model which then grants access to readers affiliated with the library's institution.

² TopScholar is "a University-wide, centralized digital repository dedicated to scholarly research, creative activity and other full-text learning resources that merit enduring and archival value and permanent access." TopSCHOLAR™ can be found at <http://digitalcommons.wku.edu/>.

³ Digital Commons is powered by the Berkeley Electronic Press. For more information, see: <http://digitalcommons.bepress.com/>.

However, James and I thought that the journal needed a proprietary web address that was more recognizable. We ultimately decided on www.intjexersci.com, as this address would use abbreviations very similar to the Medline abbreviations used in manuscript references. This is the web address advertised as the official journal address, and the one that you find on the website and on the editors' business cards, but it actually serves as a redirect to the TopSCHOLAR address listed above. This is important due to the way readers currently search for academic content in journals via the web.

Editorial Board and Reviewer Pool

Participating in the IJES editorial board was an attractive option for many of those called upon, as most were young, aspiring academics looking to add professional service to their curriculum vitas.

The initial board had about a dozen members. . . . The current board has thirty-one total members, including seven student representatives, and is represented by four different countries (United States, Brazil, South Korea, and Nigeria).

Once we had the journal site established, we next needed to create an editorial board and build a pool of potential reviewers. Building the editorial board was actually pretty easy. We knew it wouldn't be very large at first, which was ok, because we wanted quality board members rather than just a quantity of names. We simply evaluated our contacts—current and former colleagues, former classmates, and former professors—and went from there. We sent invitations via email, as well as personal telephone calls, to invite people to serve on the editorial board.

Participating in the IJES editorial board was an attractive option for many of those called upon, as most were young, aspiring academics looking to add professional service to their curriculum vitas. The idea of serving not only on a journal editorial board, but on a board of a new journal with a fresh mission of soliciting student-driven research, where they would have the opportunity to assist in establishing policy, was an easy sell.

The initial board had about a dozen members, including James and myself as Co-Editors-in-Chief. That first group had professionals from the areas of health care administration and physical therapy, as well as academic professors from around the country. The current board has thirty-one total members, including seven student representatives, and is represented by four different countries (United States, Brazil, South Korea, and Nigeria).

As co-editors-in-chief, James and I are responsible for ensuring that the journal remains on a proper quarterly schedule, ensuring that all manuscripts are reviewed in an appropriate and timely manner, scheduling and conducting quarterly teleconferences with the editorial board, and overseeing the terms of current board members and section editors, as well as acquiring board approval for new nominees to the editorial board.

James and I are very active as co-editors. I do an initial review of each paper that is submitted to ensure that it falls within the scope of the journal, that the authorship follows journal policies, and that the paper is of a high enough quality (both in grammar and in content) to merit a thorough, independent peer-review. James's responsibilities include directing production of each issue, with specific attention to formatting of manuscripts. Our managing editor, a graduate student from the editorial board, is responsible for the copy-editing and initial formatting of manuscripts. Dr. Brian McFarlin, of University of Houston, is active as Associate Editor. His responsibilities are primarily related to pre-review of submitted manuscripts and assessing each manuscript for plagiarism.

The board remains very engaged in the journal, as all board members are committed to three-year terms and must review at least one manuscript per year. The board meets quarterly via teleconference, and these meetings coincide with the publication of each quarterly issue. Generally the board meets approximately one week after an issue is published.

“...the annual board meeting has been crucial in fostering a sense of community among the board members and providing members an opportunity to become acquainted with one another on a more personal level.”

The board also has a reception each June, at the annual meeting of the American College of Sports Medicine. James and I believe the annual board meeting has been crucial in fostering a sense of community among the board members and providing members an opportunity to become acquainted with one another on a more personal level. The benefits of face-to-face meetings show in the quarterly teleconferences: as the board members have become better acquainted, they have been more forthcoming with their comments, criticisms, and suggestions. This has been very positive for the development of the journal.

The board has also expanded in complexity. For instance, there are now section editors responsible for managing submissions in a given sub-discipline. This was put in place to relieve the workload on the Editor-in-Chief and Associate Editors. Spreading out the

manuscripts among different section editors has helped the efficiency of the journal, and has aided in getting papers reviewed and returned to the authors in a more timely manner.

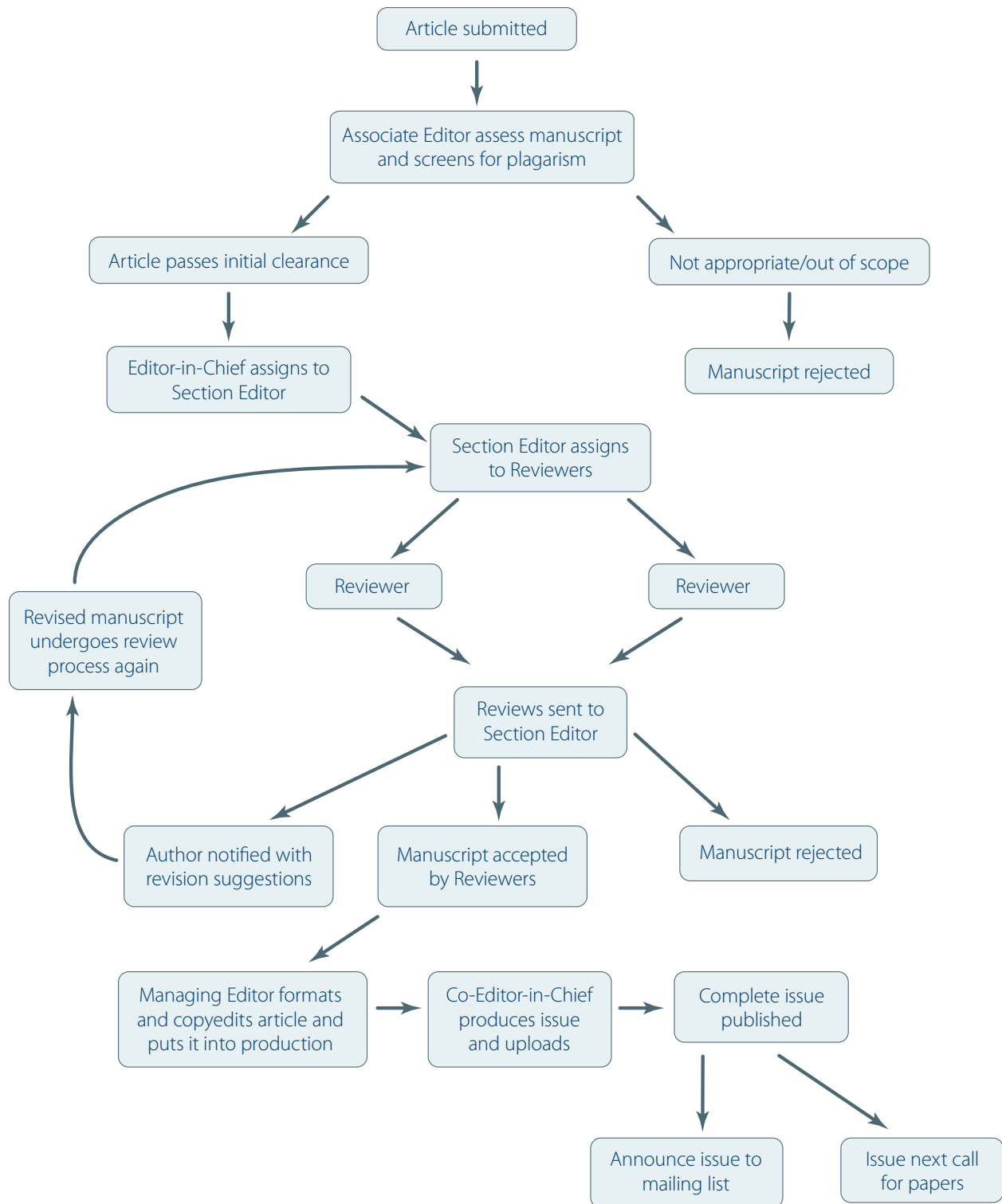
Once the initial call for submissions was sent (as discussed later), and manuscripts starting being submitted, James and I knew that we had to start thinking about how to have these papers reviewed appropriately. What we learned was that building a pool of reviewers was a bit more challenging than creating an editorial board. While the editorial board members are all responsible for reviewing at least one manuscript per year, it was obvious from the beginning that finding enough reviewers would be a challenge.

Our review policies made it important for us to lean on our colleagues and former classmates to find reviewers early on. Per the policies of the journal, at least two professionals in the field review a manuscript submitted by a professional. However, if a manuscript is submitted with a graduate student as lead author, one professional and two graduate students review it. Similarly, if a manuscript is submitted with an undergraduate student as lead author, one professional and two undergraduates review it.

Finding professionals to review manuscripts was not too much trouble, as it is a standard practice for professors to be asked by various journals to serve as peer-reviewers. We simply called on our colleagues from around the country to get the pool started, and then anytime a manuscript is submitted all authors are automatically added to the pool.

The difficulty was in finding enough graduate students and quality undergraduate students. What we found was that with the volume of manuscripts we had submitted by graduate students, locating other graduate students to review these manuscripts was the biggest obstacle. The problem with the undergraduates was not in number, as comparatively we have had fewer undergraduate submissions; rather, the problem was in finding undergraduate students who would do a thorough job and write a quality review. We have strongly encouraged them to use a faculty member as a mentor when reviewing manuscripts.

Over time, the reviewer pool has grown to a level where finding reviewers for manuscripts is no longer quite as difficult. It also helps that every author on a manuscript is added to the reviewer database on the journal site when a manuscript is submitted. Many of the authors may never be requested to review a paper for IJES, but it is very helpful to the editors and to the editorial board that they are there and can be called on if necessary.



Editorial workflow for articles submitted to IJES

This chart details the editorial workflow for a submitted article. The editorial workflow is managed through the administrative interface of TopSCHOLAR™ using Digital Commons editorial management and peer-review tools.

One policy enforced by the journal that has helped to ensure both quality and integrity is the screening of each submitted manuscript for plagiarism. Prior to being reviewed by an editor or sent to independent reviewers each manuscript is screened through current software designed to detect plagiarism. The editors also published a position stand in Volume 3, Issue 3 (July 2010) on the prevalence of plagiarism in submitted research manuscripts.

Marketing

James and I enlisted the assistance of graduate students to create a database of academic contacts at colleges and universities around the globe. The graduate students used the internet to visit websites of colleges and universities in many different states, and if a given college or university had a kinesiology or exercise science program, all professors in the department were added to the database.

The initial call for submissions was sent out via e-mail blast during the summer of 2007. This was the first real marketing of the journal. Included in the call for submissions was a link to the journal site, as well as basic instructions on the submission process. We wanted to test the waters and see what kind of response we would get with such a soft announcement of a new journal. The initial response was impressive—the first manuscript was submitted within a couple of weeks of the e-mail blast.

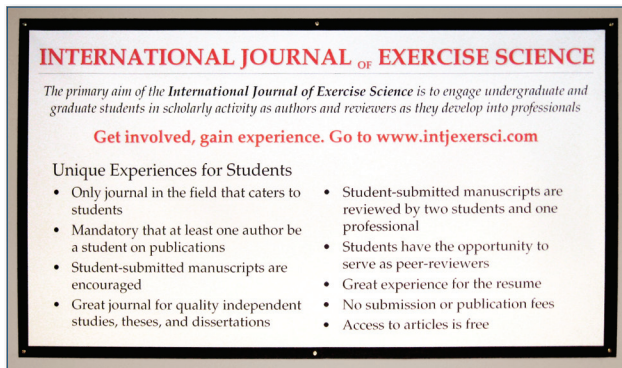
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Our target for the first issue was five “pieces.” In other words, counting original research, the invited editorial, and anything else, we wanted to make sure there were at least five items in the first issue. Indeed, we met that goal with an invited editorial and four original research manuscripts. From there, we allowed the journal to market itself for a couple of months. A second call for submissions was then sent out just after the first issue was published.

In June 2008, IJES also purchased a booth in the exhibit hall at the annual meeting of the American College of Sports Medicine (ACSM). James and I, along with other editorial board members and graduate students, manned the booth during the entire conference. We signed up potential reviewers to add to the reviewer pool (who were then entered manually into the journal site later), promoted the journal to other professionals and students, and gave out small promotional items, such as magnets and pens, just to keep the name of the journal fresh in people’s minds. The result of our efforts was substantial, as many of the prospective reviewers that signed up did, indeed, review manuscripts and

some were eventually added to the editorial board. There was also a noticeable increase in manuscript submissions after the conference, with a number of the submissions over the next six months coming from people that we met at the booth during the conference.

We also believed it would be very important both from marketing and credibility perspectives that the journal be indexed appropriately, and as soon as possible. The two indexing services that we targeted immediately were Medline (PubMed) and SportDiscus. Knowing the rigid requirements of Medline, we pursued SportDiscus first.



The IJES banner used at the journal's conference booths.

In mid 2009, after about 1½ years of publication, we completed the necessary application through the Sport Information Resource Centre (SIRC) who, at the time, owned SportDiscus. However, during the time of processing, SportDiscus changed hands and became the property of EBSCO. Thus, the original application that was meant for indexing in SportDiscus resulted in the journal being indexed through SIRC. We then completed a second application through EBSCO, which was approved for the journal to be indexed through SportDiscus.

Once the process of indexing with these two services was complete, we applied in 2010 for indexing through Medline, and were denied. As we discovered, this is not that uncommon for a new journal. We were instructed to complete a second application after another year or two of publication. While waiting for the appropriate time to reapply for Medline indexing, we editors are exploring the possibilities of indexing through the Web of Science. Along with indexing, we know, and have been asked numerous times, about the importance to many of having a published impact factor. Similar to Medline indexing, assignment of an impact factor will only be done after at least three years of publication, so we are waiting a bit longer before pursuing that. However, the editorial board has discussed many times the possibility of using available data to construct an algorithm for calculating an estimated impact factor, and publishing that on the front page of the journal site. We are still discussing the pros and cons of that option.

Funding

The *International Journal of Exercise Science* does not charge subscription or submission fees, and thus the journal generates no revenue. Funding to promote the journal has

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been acquired by internal means. This was the case when we purchased a booth in the exposition hall at the 2008 ACSM conference in Indianapolis, Indiana. James and I requested funds through a special internal mechanism at our university whereby the Provost's office would provide funding for research and creative activities. Usually the Dean and Department Head would then match these funds. These same types of institutional funds were also requested, and granted, for editorial board meetings/receptions at the 2008 ACSM conference as well as the 2010 ACSM conference in Baltimore, Maryland.

Conference Proceedings

In addition to the quarterly publication of original research and review articles, the *International Journal of Exercise Science* has published a number of conference proceedings. Conference proceedings are published under a separate link on the front page of the journal site. The journal has published proceedings from the Texas American College of Sports Medicine Conference, the University of Houston Graduate Student Research Conference, the South Central Region of the American Society of Biomechanics Conference and the International e-Conference on Kinesiology and Integrated Physiology. The relationships needed to publish various conference proceedings were established through contacts on the editorial board and through people submitting to and publishing with the journal. Academics are generally

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members of any number of different organizations within their specific area of specialty, and if an organization has a yearly or bi-yearly conference, but does not publish the research abstracts, the *International Journal of Exercise Science* is an excellent option. Publishing conference proceedings can also expand the number of readers and raise the visibility of the journal.

Conclusion

The *International Journal of Exercise Science* has experienced a somewhat unexpected, though certainly not unwelcome, level of early success. The journal continues to grow, with more quality submissions each month, and more academic professionals expressing interest in serving as reviewers or editorial board members. The Editors continue to strive to promote the field of exercise science worldwide. Each issue begins with an invited editorial. If you are interested in submitting an editorial for a future issue, please contact James or me.

The Editors and the editorial board of the *International Journal of Exercise Science* would like to thank Berkeley Electronic Press (bepress) for their continued excellent service in providing the platform for this journal, Connie Foster of the Western Kentucky University Libraries for being the person who helped make this idea a reality, and Dr. Willie Hey and Dr. John Bonaguro for providing the time to work on the journal and for occasional funds to help market the journal and develop relationships among the editorial board.

IJES Metrics

Number of volumes published	4
Number of issues published	16
First year of publication	2008
Articles published since 2008	184
Reviewers currently in the reviewer bank	740
Downloads of IJES articles	51,000
Mean number of downloads per article	277
Range of downloads	25-2450
Most popular article	<i>Relationship of VO₂ Peak, Body Fat Percentage, and Power Output Measured During Repeated Bouts of a Wingate Protocol</i>
Countries readers came from in July 2011	45
Country outside of the US delivering the most traffic	Brazil
Indexed in	SportsDiscus, EBSCO

metrics as of August 2011.