

LINDENWOOD UNIVERSITY  
School of Sport, Recreation and Exercise Sciences

**Authorship Determination Worksheet**

**Background:**

Much of the basis of this worksheet is adopted from the recommendations put forth by the International Committee of Medical Journal Editors ([www.icmje.org](http://www.icmje.org)).

Authorship on any publication confers credit and has important academic, social, and financial implications. Authorship also implies responsibility and accountability for published work. The following recommendations are intended to ensure that contributors who have made substantive intellectual contributions to a paper are given credit as authors, but also that contributors credited as authors understand their role in taking responsibility and being accountable for what is published.

**Who Should Be Considered As An Author?**

The ICMJE recommends that authorship be based on the following 4 criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Designated authors should meet all four criteria for authorship, and all who meet the four criteria should be identified as authors. The names of those individuals who do not meet all four criteria, but made recognizable contributions towards the project should be placed in the acknowledgments section of a manuscript or presentation.

**Order of Authorship:**

- The first author is typically the coordinator of the entire project and the person who did the majority of the writing for the prepared manuscript.
- In biomedical and clinical research scenarios, it has become common practice that the person listed last is the senior author. The senior author designation is typically given to a faculty member whose lab and research funds were used to complete the project or who provided direct senior leadership over completion of the entire project. Because the work was originated from this individual's affiliation this person is often designated as the corresponding author.
- The order of authorship outside of the first and last (senior) author is not to be construed as any indication of contribution towards the work. Collectively, this body of individuals are considered as equal co-authors and only in rare instances might the order in which an author appears affect tenure and promotion or other considerations such as merit pay or salary adjustments.

To help students involved in research respect and clearly understand the process used to determine authorship the following worksheet has been developed and accepted by faculty in the School of Sport, Recreation and Exercise Sciences.

This worksheet is to be completed by the senior student on the project in consultation with the lead faculty member on the project or with the Director of Graduate Programs. It is advised that the senior student and lead faculty member notify potential members of the research team how their involvement and authorship will be determined early in the process of completing the project.

**Step #1** – In the space below, identify all of the people on the research team or those people who have played a role in getting in initiating the project.


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**Step #2** – In the space below, and considering only those people directly identified above, who contributed “*to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work*”.

In other words, of these people who helped with *at least one* of the areas listed below:

- Designing the study, collecting the data, analyzing the data or interpreting the data

NOTE: the use of the word “or” has been purposefully included whereby if someone helped with designing the study (a committee member) but did not contribute to data collection or analysis, this person would still get credit. Alternatively, this would also include a student peer who does not contribute to study design, but may play a significant role in data collection procedures.


**Step #3** - In the space below, and considering only those people directly identified above, who contributed “*drafting, writing or preparing the final work or revising it critically for important intellectual content*”. In other words, who contributed to writing the paper?

Thus, you should also give credit to people who may not have helped with writing but did provide valuable, thought-provoking feedback that helped to improve the quality of the manuscript. This latter points many times bring in committee members who do read and provide detailed feedback on the drafted manuscript as well as students who may have helped with making tables, figures, formatting, etc.


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**Step #4** - In the space below, and considering only those people directly identified above, who provided final approval of the version to be published?

In most instances if a person is going to take the time to provide critical edits they will approve of the final version to be published. This step is important to ensure all forms of feedback are properly addressed prior to submission of the manuscript and to ensure all authors are fully aware and approve of the submitted manuscript.


Using the information provided in this worksheet, the people identified in the box above should be considered to be authors on your manuscript. Finally:

Who is Your First Author?

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Who is Your Senior / Corresponding Author?

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What is the Order of Your Remaining Authors?

2<sup>nd</sup> - \_\_\_\_\_

3<sup>rd</sup> - \_\_\_\_\_

4<sup>th</sup> - \_\_\_\_\_

5<sup>th</sup> - \_\_\_\_\_

6<sup>th</sup> - \_\_\_\_\_

7<sup>th</sup> - \_\_\_\_\_

8<sup>th</sup> - \_\_\_\_\_

Congratulations, by following each step of this workout you should have successfully determined both the list and order of authors in a transparent, systematic means that will result in everyone understanding their inclusion or exclusion of authorship.

Finally, don't forget to acknowledge any individuals who played a meaningful part in supporting aspects of the project, but did not qualify as an author. This should be done in the acknowledgments section of a manuscript and presentation.