

Research Plan Fundamentals: a New Guide for Writing NIH Grant Proposals

Now available for self-paced study is [Research Plan Fundamentals](#), a general guide to writing the Research Plan of an NIH grant proposal. Although different grant mechanisms have different requirements, the principles underlying the Research Plan are consistent, and these are the focus of the course. While the course is based on existing curricula from the Research Medical Library, the scope of the material has been broadened to be applicable to a wide range of research and career development grants. This course has been broken down into short elements, so specific areas can be targeted if desired.

Understanding the Relative Citation Ratio: A Context-Specific Metric

The Relative Citation Ratio (RCR) is a novel, article-level research metric that was developed and endorsed by the National Institutes of Health (NIH) to provide a more nuanced and field-specific measure of research impact compared to traditional metrics like the h-index and impact factor. Calculating an article's RCR involves dividing its actual citation rate by the expected citation rate, derived from averaging the citation rates of peer NIH-funded publications within the same research field and co-citation

network. An RCR value of 1.0 represents the average impact, while an RCR of 2.0 signifies twice the impact of average, and an RCR of 0.5 indicates half the average impact (and so on), enabling a more equitable comparison among publications and researchers.

The RCR for a given article can easily be found using iCite (<https://icite.od.nih.gov/analysis>), a powerful free tool developed by the NIH. By entering the PubMed ID, DOI, or other identifiers of a research article, users can obtain the RCR value, the actual citation count, and the expected citation count for a selected article. Additionally, weighted (additive) RCR will be provided for a group of selected articles. This allows researchers to gauge the true influence of their work and assess its significance in comparison to other similar works within the research landscape.

Despite its strengths compared to traditional metrics, the RCR also has certain limitations. RCR calculations heavily rely on citation data, which can take time to accumulate, especially for newly published research. An article will be assigned an RCR once it has 5 citations, but until a publication is 2 years old, the RCR calculation will be marked as provisional. Furthermore, the RCR is only applicable to research outputs with DOI numbers and may have limited utility for non-US publications.

In conclusion, the Relative Citation Ratio is a valuable addition to the research evaluation toolkit. Its ability to overcome certain limitations of traditional metrics and offer a fairer comparison across disciplines makes it an attractive option for researchers seeking a more comprehensive understanding of research impact. However, it is essential to interpret RCR values alongside other metrics and consider its drawbacks to make well-informed assessments of scholarly contributions.

At the Research Medical Library, we are dedicated to providing you with expert assistance in navigating, retrieving, and interpreting publication metrics. We are thrilled to announce the addition of Travis Ford Holder to our team, who will be focusing his efforts on conducting comprehensive metrics searches. Travis brings a wealth of knowledge and expertise in the field,

making him an invaluable resource for researchers and scholars seeking to understand the impact of their work.

References

Hutchins BI, Yuan X, Anderson JM, Santangelo GM. Relative Citation Ratio (RCR): A New Metric That Uses Citation Rates to Measure Influence at the Article Level. PLoS Biol. 2016 Sep 6;14(9):e1002541. doi: 10.1371/journal.pbio.1002541. PMID: 27599104; PMCID: PMC5012559.

NIH iCite: <https://icite.od.nih.gov/analysis>

Image Reuse in Scientific Publications

As Frederick R. Barnard stated, “one picture is worth ten thousand words,”^{1, 2} and this is certainly true when communicating complex information such as scientific findings. To summarize information for quick comprehension, it’s common for authors to include images (photographs, figures, graphs, tables, etc.) in scientific publications, especially in the Results sections of papers,³ and it’s also common to reuse images from published articles in one’s own paper. However, it’s not as simple as pasting a screenshot of the image into your manuscript and citing it in the reference list. In the United States, all original works that have been fixed in a tangible form of expression (such as books, paintings, films, and computer code, as opposed to thoughts, ideas, facts, etc.) are automatically protected by copyright, and this means that it is necessary to obtain permission to reuse them.⁴ At this point, you may be wondering how to obtain permission, and this is where the Research Medical Library can help.

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References

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2. Barnard FR. Make a Cake for Bobby. *Printers' Ink*. Printers' Ink Publishing Co.; 1927;138(10):114. Accessed September 12, 2023. <https://babel.hathitrust.org/cgi/pt?id=mdp.39015065626619&seq=2060&q1=thousand>
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Heterogeneous vs. Heterogenous: An "eensy" Difference

Heterogeneous and *heterogenous* are often used interchangeably. However, although some sources^{1,2} consider *heterogenous* (he-tə-**rah**-jə-nəs) to be a less common, alternative spelling of *heterogeneous* (he-tə-rə-**jee**-nee-əs), the two terms have distinct definitions in medical and biological contexts.

Something that is *heterogeneous* consists of diverse elements.^{3,4}

Examples:

The clinical trial recruited patients with heterogeneous racial and ethnic backgrounds.

The mammogram revealed that the patient had heterogeneously dense breast tissue.

In medical contexts, something that is *heterogenous* is derived from another source or species.² It is a synonym of *heterogenic*.⁵

Example:

The patient received a heterogenous bone graft.

It is important to note that some sources¹ consider *heterogenous* to be an obsolete medical term and solely an alternative spelling of *heterogeneous*. However, such usage can cause confusion, so it is best to use the more common spelling *heterogeneous* for clarity.

Confusing: The tumor consisted of heterogenous cell types.

Better: The tumor consisted of heterogeneous cell types.

References

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Celebrate Hispanic Authors

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Learn more about National Hispanic Heritage Month by attending these institutional events.

Latino Legacies in Healing: A Tapestry of Tradition and Modernity

September 29, 2023, 1-2 p.m.

Dive into the mosaic of Hispanic health traditions, from the time-honored practices of curanderos to contemporary research and innovations. Invited guests for this interactive session are Jennifer Koshatka Seman, Ph.D., author

of Borderlands Curanderos, from Metropolitan State University of Denver, and Amanda Ellis, Ph.D., author of *Letras y Limpias*, from The University of Houston. Representatives from MD Anderson's Spiritual Care and Education department will also participate in this panel discussion. More information.

Cómo se dice: Let's Learn Spanish!

October 05, 2023, 12-1 p.m.

Unlock the language of culture by celebrating Hispanic heritage through practical Spanish phrases. Join this vibrant voyage through the rich tapestry of Hispanic heritage as we celebrate the linguistic and cultural treasures of the Spanish-speaking world. This event is designed to be an immersive experience where participants can discover the beauty and practicality of the Spanish language and learn tips and tricks that can help you be successful while at work and in your daily life. More information.

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