Genetics Writing Assignment #2: Article Types

The Cornell University Library defines a primary article as “original scientific reports of new research findings” (Cornell University Library, par. 1). Simply put, it is an article that someone writes about their own research findings. A primary article has four distinct parts to it: the introduction, the materials or methods of research, the research itself, and then a discussion. This type of article is new research in a field, such as a new behavior seen from fish found in someone’s backyard pond. There are already papers written on the species of fish, but if someone observed a new behavior from one of those fish in their backyard pond, the paper they write is their own original research on that fish species. Primary articles are important to scientific discovery, as these are new contributions to scientific fields. Without primary articles, some scientific fields could come to a standstill. There also would not be review articles, as there would not be anything for the article to discuss.

Review articles, simply put, are an analysis of research written by another. The Cornell University Library describes a review article as “articles which organize and critically analyze the research of others on a topic” (Cornell University Library, par. 1). This type of article is usually easier to understand, as it is a summary of research written by someone else. This means it is more concise and easier to comprehend for someone who in unfamiliar with a topic (Cornell University Library, par. 2). These articles can also sometimes help the reader to understand connections between different research articles and help the reader to be aware of the most current information on the topic, if discoveries on the topic have changed over time (Oswego Penfield Library, par. 2). Review articles are also important contributions to scientific fields, even if they are not original research.

The scientific peer review process is very important for scientific papers. It is essentially the process of a scientific paper being evaluated by peers in order to prove whether or not it is worthy of being published (Oswego Penfield Library, par. 1). The scientific peer review process begins with the author writing their research paper, and then submitting their article for a scholarly journal. Once the paper is received, the editor assesses the paper and decides whether or not to send it on to be evaluated for credibility and quality. If the paper is sent on, and passes the peer review process, it must pass an even harder test. This test is done by experts in the paper’s field of study. These experts must decide the quality and significance of the research presented in the paper and will then either reject the paper or recommend it for publication to the editor. Even if the paper passes all of these extensive and important tests, the editor is the one who ultimately decides the fate of the paper, as they can still choose to reject it. They can also ask the author to revise the paper. Rejection is very common for submitted research papers (Cornell University Library, 0:53-2:20) (Oswego Penfield Library, par. 1). As mentioned, the scientific peer review process is very important for the publication of scientific papers. If the paper did not have to go through this extensive process, the paper may not be credible, or have too much misinformation, or may just be not what needs to be published for a subject yet. Scientific papers must be held to the highest standard in order to provide accurate, non-biased information.

Reference Page

"Biological Sciences Research Guide: Primary Research vs Review Article." libraryguides.oswego.edu, SUNY Oswego, Penfield Library, 7 Jan. 2025, <https://libraryguides.oswego.edu/biologicalsciences>.

"Biological Sciences Research Guide: What is peer review?" libraryguides.oswego.edu, SUNY Oswego, Penfield Library, 7 Jan. 2025, <https://libraryguides.oswego.edu/biologicalsciences>.

"Tutorial: Scholarly Literature Types: Peer Review." guides.library.cornell.edu, Cornell University Library, <https://guides.library.cornell.edu/scholit>.

"Tutorial: Scholarly Literature Types: Primary vs. Secondary Articles." guides.library.cornell.edu, Cornell University Library, <https://guides.library.cornell.edu/scholit>.