

Writing Assignment #1

BIOL 294

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Throughout undergraduate studies within the STEM majors, the differences between primary articles and secondary sources, such as review articles, are made clear through different courses and research projects. Primary articles are the first record of research within the scientific community. These articles display the original work of a group or individual. Primary articles have a familiar format to those who have been required to submit a laboratory report. They are typically divided into an introduction, methods section, results section, discussion and the references section. It is important to note that to be considered a scientific article, a primary article must have undergone a peer-review process.

Unlike primary articles, secondary sources typically consist of pieces of works published by others, such as review articles. Review articles pull information from recent works regarding a specific topic and summarize that information to provide a well-rounded and thorough article regarding the current understanding of a topic. While review articles do contain a plethora of information, they are not meant to overwhelm the reader. Review articles are peer-reviewed, however, it is not necessarily with the same criteria as with primary articles.

The peer-review process is incredibly important in ensuring that only articles that are absolutely prepared to be published are published. A peer-review is exactly what it sounds like. After an editor has made the decision to process an article, it is sent to a group of individuals, sometimes referred to as referees, who are experts in the topic discussed in the article. They are

peers to the author in the sense that they too have a devoted interest in that particular field. These peers then thoughtfully consider the article's contents. They are considering if the article and research is original, if it's relevant, interesting or groundbreaking. There are many factors to consider when assessing new research or a new perspective on previous research. The peers offer their opinion to the editor and the article is either edited, published or rejected.

The two articles we were asked to view are examples of a primary article and a review article. The first, MicroRNA in diagnosis and therapy monitoring of early-stage triple-negative breast cancer, is clearly a primary article. This is shown through its format, containing sections most commonly found in the original article, such as the introduction, results, discussion and references. The second article, Circulating microRNAs in Medicine, was formatted slightly differently. It had a format more common to review articles, lacking the typical section headings of primary articles, and instead displaying a plethora of information regarding microRNAs with sections dictated by the topic of the information.