A primary article is typically a way of conveying the results of an experiment or study. The author or authors typically begin the process by gathering data from experiments. Then the data is analyzed and discussed within the greater context of the scientific field being advanced. Because experiments and studies are a fundamental part of the primary article they typically discuss the methods used in the study or design. The methods section is supposed to act as a sort of recipe for other researchers to repeat the study's results. Additionally, the data collected have to undergo analysis and the techniques used are typically included along with the methods. Primary articles will also include the sources that influenced the design of the experiment and if the results align with the general consensus of the field of study.

A review article is very different from a primary article. Typically review articles are published by experienced researchers in the field of study. Review articles provide a survey of the consensus of an entire field on a certain topic. Review articles' purpose is to inform of the cutting-edge of research while providing a guide to the unanswered questions within a field. A review article typically does not present experiments and usually focuses on the most pertinent results to the question the article seeks to answer. While primary articles may discuss and cite multiple references the entire purpose of the review article is to provide a thorough discussion of the research pertaining to the question. Similar to the primary article the review article needs to discuss how it fits in the wider context of the field within the conclusion section.

The peer review process can be broken into two separate sections but equally important time periods. In Prepublication, authors must undergo a rigorous process of evaluation by their field's peers. These peers are named "reviewers" and they must be the closest experts to the topic the author is attempting to publish in. Typically reviewers evaluate the relevance to the journal, the magnitude of results to the field, the quality of analysis, the references not included, and multiple other components of a strong publication. Reviewers will typically send papers back with corrections or suggestions if a paper is of sufficient quality. The authors will act upon these corrections and suggestions until both parties are satisfied and the paper is recommended for publication to the editor. The peer review process after publication is the analysis by peers in the field of study. This may include repeating the original author's methods and seeing if results replicate or using new analysis techniques on the data collected from the original author's experiments.

Of the articles given, the primary article is obviously the paper by Tsou et al. "Rapid and Sensitive Detection of SARS-CoV-2 Using Clustered Regularly Interspaced Short Palindromic Repeats." The reason is chiefly because it discusses the methods and materials used in the study. A review article typically would not include a methods section. Especially for the methods and materials used in an experiment. The other paper by Huang et al. "Development of clustered regularly interspaced short palindromic repeats/ CRISPR - associated technology for potential clinical applications" features components typically used

in review articles. Conclusions, while used occasionally in primary articles, are regularly used in review articles. The paper also discusses the wider applications of the field of CRISPR/Cas research. This is something typically not discussed in primary articles. The review article lays a foundation of the basics of the field with an introduction to the classification of CRISPR/Cas systems. Typically primary articles are less thorough in laying a foundational knowledge of a field as readers are expected to be experts in their respective fields.

## References


Huang, Y., Zhang, X., Zhu, P., & Ji, L. (2022). Development of clustered regularly interspaced short palindromic repeats/CRISPR-associated technology for potential clinical applications. *World Journal of Clinical Cases*, *10*(18), 5934–5945. https://doi.org/10.12998/wjcc.v10.i18.5934

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