**Introduction to Scientific Writing**

Science writers use special conventions to communicate new discoveries and experimental results as efficiently and concisely as possible. A good scientific article expresses complex ideas in a way that makes it easy for the intended audience to recognize the importance of the information. Because scientific writing is so specific, reading a scientific article is often much more difficult than reading essays or newspapers.

Scientific articles are usually intended for publication in a journal and often must undergo some kind of examination by other scientists – this is known as “peer review” – to check for experimental bias and validate specific claims. This affects the way that information is presented and may influence the structure of the paper.

There are many differences between common college-level writing and a peer-reviewed scientific article. Here are a few.

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|  | Freshman Composition Essay | Peer-reviewed Scientific Article |
| Audience | A college professor who has seen thousands of similar essays | Experts in a specific field who are familiar with the discipline but have never seen this information before |
| Design & Purpose | Designed to demonstrate an understanding of writing skills, organization, and grammar | Designed to communicate as much information in as concise a form as possible |
| Structure | Optimized for learning about prewriting, drafting, and revision. Usually uses a very straightforward, familiar structure | Uses special sections and formatting conventions for summarizing data and organizing ideas so that the audience can identify the most important information; often depends on the journal |
| Content | Focuses on a topic usually selected by the professor; the student uses other research to support his or her thesis | Focuses on experimentation, verification, and original research; seeks to develop new ideas and provide original solutions |
| Development | Uses a simple, outlined progression of ideas to develop the conclusion | Organizes information based on topic; presentation may not be linear. |