

## **Module 07 Lesson 01**

### **VoiceThread: Scientific Publishing Transcript**

The scientific publishing process is very rigorous whereby a scientist (or group of scientists) undergo the scientific method, obtain their results and then they write their results up in the form of an article, which they submit to a scientific journal of their choice.

The editor of the journal then sends the manuscript out to anything between 2 to 5 other scientists who are experts in the field. These scientists act as peer reviewers, who review the quality of the manuscript and then make their comments and then send them back to the journal editor.

Depending on the comments of the reviewers, the journal editor will either reject the manuscript outright or they will send the manuscript back to the scientists with a list of the corrections required as per the reviewers comments.

The scientists then take all the comments into consideration, revise the manuscript and send the revised manuscript and their comments back to the journal editor.

Depending on the extent of the revisions, the journal editor may chose to send the manuscript out for review once again, but if not, once the article satisfies the requirements of the journal editor, the article will be accepted for publication and will appear in a future edition of the journal. This publication process is rather rigorous and can take anywhere from 4-12 months to be completed.

The end result of the scientific publication process would be something that looks like this, which is a journal article of mine that was published in the Proceedings of the National Academy of Sciences.

Now you may have heard of the phrase "Publish or Perish". This is a very real concept in science, whereby scientists are often at risk losing funding and/or their jobs if they do not publish their research findings in the primary scientific literature. While this may seem somewhat threatening for a scientist, it is important because much of science is funded by the government (i.e. tax payer money) and scientists therefore have civic responsibility. The scientific community can only fulfill its role in society if its findings, hypotheses, and reasoning is presented and made public.

So peer reviewed scientific articles provide a trusted form of scientific communication, and even if you are unfamiliar with the topic or the scientists who authored a particular study, you can trust peer-reviewed work to meet certain standards of scientific quality. If the review process is rigorous, the published work should be of high quality, although quality will vary depending on the quality of the journal.

However, most of you will no doubt never end up reading the original scientific article, and you will no doubt end up reading the popular media that takes information from the scientific article and puts it in the newspaper or on TV, and it is this which we will move on to talk about in the next lesson.