Description

Have you ever tried your best to explain a complex scientific concept to your non-scientist friend? How important and irrefutable scientific concepts are and how unaware a large group of people is! If anything the COVID-19 pandemic has taught, it is to never underestimate the power and influence science has on all human lives. The need to understand and be understood with regards to scientific findings is now ever growing. Through this article, an attempt has been made to list simple yet essential ways to explain science to all the non-scientists who really are waiting to understand the amazing mysteries of science!

Why Explain Science to Non-Science People?

Today, science is communicated through scientific journals. Honorary scientific journals have a reputation of complex construction of jargons, which only the domain experts manage to understand. However, the purpose of scientific findings, discoveries, and inventions is not limited to scientific researchers. Ultimately, a scientist or not, these findings are going to affect human beings in ways direct or indirect.

Understanding science and scientific findings is very important; thus, scientific research papers and findings are not self-explanatory. Furthermore, discussion and conclusion are two aspects of research that are highlighted for better understanding of research objectives and impact on global audience. For these research outcomes to reach non-scientists, researchers need to go an extra mile in explaining science to non-science people.

Who Is a Science Communicator? What is Their Role?

A **science communicator** is an individual with scientific research knowledge who aims to disseminate scientific knowledge in simplified and easily comprehensible manner. A **science communicator** plays an important role in popularizing science. They use their knowledge of science and effective communication skills to bridge the gap between non-scientists and their understanding of scientific findings.

Simplifying science might sound like a humongous task to researchers who are exceptional orators, teaching assistants, writing research papers and thesis, managing multiple experiments, analyzing

results, concluding revolutionary outcomes, etc. However, following certain easy ways might help them simplify their scientific study and encourage **science communicators** to promote their research work globally.

Source: Royal Society of Chemistry

Benefits of Scientific Communication

While publishing the research in a reputed journal provides researcher popularity in that particular research domain, it is not the end state of research. Additionally, this research must reach non-scientists to explain its significance and how it impacts sustainability on the whole.

Scientific communication benefits researchers by –

1. Sharing the research with a wider audience
2. Increasing a researcher's global presence
3. Giving credit and recognition to researchers for their findings
4. Enhancing the reputation and impact of research
5. Providing visibility for better funding.

Agreed that some research outcomes are difficult and quite irrelevant for non-scientists, but every research starts with a big question and **science communicators** aim to answer that question with their set objectives. Moreover, simplifying the research results help answer the question with a relevant response.

8 Ways to Be a Good Science Communicator

1. Don't Beat Around the Bush

Science communicators lose their audience when they start to explain everything from the start. Being a researcher drills the habit of always starting from basics. But in most cases all one needs to do is explain the problem and state the solution. Furthermore, if this intrigues the listener's attention, they will ask questions for more details.

2. Give Examples

When a concept is accompanied with an example, it is well understood. Giving examples makes the scientific concept more relatable. For example, it is not practical to view how the heart functions, but you can ask the audience to measure their pulse rate and extrapolate this knowledge to explain blood pressure.

3. Use Analogies

Another interesting concept is to use analogies. These, like giving examples, help the audience

connect with the concept and helps them retain the explanation. You could relate a complex molecular biology concept of function of ATP synthase to the turbines of a hydroelectric plants that utilize kinetic energy of water that flows through dams.

4. Avoid Using Jargons

Using jargon terminologies distracts the audience from the topic of discussion. This makes the non-scientists clueless and at times frustrated at what is being explained. Furthermore, the listeners lose interest in understanding the concept and never attempt to understand it again. It is crucial to know science is to be understood and not boasted.

5. Use Popular and Known Keywords

Using relevant and popular keywords helps audience relate to the subject matter instantly. Listeners become comfortable with familiar and popular words and understand the concept better. For example, a **science communicator** uses global warming, deforestation, biodiversity, loss of glaciers, impact on biodiversity etc. terms to explain environmental issues and sustainability.

6. Make the Audience Visualize the Concepts

The most interesting and toughest way to explain science is to make your audience visualize the scientific concepts. Teaching aids like infographics, gifs, videos, animations, power point presentations can help the **science communicators** to make their explanation session more interactive. Visualization of concepts help listeners retain the message. For example, science textbooks always explained biogeochemical cycles in an infographic format, you still remember it!

7. Use Diagrams and Pictures

Diagrams and Pictures are always better than reading sentences after sentences. This explains complex concepts in a simplified way. Moreover, it benefits the **science communicator** to explain the concepts to the point without complicating the flow of the presentation.

8. Use Social Media

Social media is not just a place for kids but an important platform for policymakers, media, and connecting to other scholars. Usually, researchers shy away from using social media to their advantage because although it is an open platform, it comes along with dissenting thoughts (which are not always favorable to the research outcome). However, one must use SM platform to communicate their research because half the world thrives on social media!

Challenging as it may seem, explaining what you do as a researcher is a privilege. Therefore, early career researchers attend seminars and symposium, to understand how to communicate ones' research work.

Conclusion

Doing a splendid work in the laboratory, trying to perfect the experiment to achieve reproducibility, reading tens and hundreds of research papers, and monitoring your own progress—all of this only to let it slide in a paper in heaps of journals? It is time science gets its recognition and not only among the known players but among our equals—the non-scientists!

Have you ever come across a moment where you had to explain your research work to your non-scientist friends? How was your experience? Do write to us or leave a comment below!

Category

1. Promoting Research
2. Using Online Media

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