

What is science communication?



What is Science communication? Science communication generally refers to science related topics presented by the public media to public or non-scientists. Science communication is important, not just to keep a need for developing science, because some of the information is directly depends on science. Science pervades our society today. This is because most of our industries and much of our national prosperity depend on science (Bodmer report, 1985). We used everything or machinery related to science at home as well as at work. Science also affects our personal activities from health and diet to holidays and sports. So, it is important to show the reason everyone should have some understanding of science to improve this understanding. Science communication can also simply describe as the communication between scientists and non-scientists. The public gets information about science through engaging with science communicators and through mass media. Most commonly, the media like newspapers, television, internet and magazines are the channels used to spread science to the public. The interaction between scientists, the public and also the media becoming very common due to the development of science. Now many of the new generation of student scientists are trained in communication skills so that they can communicate to the outside world (Besley and Tanner, 2010).

About the role of scientists in public debate 2001, most of the scientists think that communicate their work and its social and ethical implication to the public is their responsibility. But, there also many scientists said they have no time to communicate their research to the public due to the requirement of their jobs nowadays. Most of the researchers said that constraint of time

stopping them for engaging with the public and also the peer pressure as a gap to take part in public engagement (The royal society, 2006). Whereby, the specialist science communicators are suggested by scientists as the best group to communicate science to others. This is because they are equipped with all knowledge, skills or experiences in science which can help them communicate well. These can prevent from misrepresent. Scientists should attempt an effective assessment of potential effects for the public and also ensure the appropriate communication methods so that public not misunderstand and object the scientific works. The scientist was encouraged by the government, research funders and the public to explain and discuss their scientific work, to consider also the sense of the community for example the use of animals in the research (Engaging science, 2006). Scientists should involve themselves in public engagement in order to convince the public on their scientific research.

In the recent past, many scientists think that they will lose their job if science became more popular (Gregory, J & Miller, S, 1998). But now, most scientists think that it is important and essentials for public to know more about the science (The role of scientists in public debate, 2001). It is important to communicate science to public to stable their careers and to further their research. The public can have a better understanding of science and scientists do which enable them to judge the science issues and to make their own decisions on their lives through communicating (The role of scientists in public debate, 2001). So, what do scientists think about science communication? Some scientists say it is wasting their time and energy to communicate while some feel that science communication will bring to

misunderstanding and misrepresenting of information. Where, clinical and biomedical scientists more likely to state misunderstanding and misrepresentation as their disadvantages to communicate the science to the public (The role of scientists in public debate, 2001). But, the health research can be recognized as the work of outsiders and unaccountable to society if there is no engaging with the social, politic and cultural until the research had been implemented (Bangalore, 2009). However, many scientists state that there are no personal disadvantages. Most of the scientists think that communicate science to public bring many personal advantages instead of no benefits:

Cash inducements – In order to do a research, cash or money is the main premises. From the survey of the royal society in 2006, money was the main incentive to encourage scientists to communicate their findings to public. It doesn't matter the awards or prizes is given to departments or individuals.

Attracting possible funding – Most of the scientists will take science communication as a part for them to attract more organizations or funder on their research. As in the Pew research, the main obstacles to conduct the research is lack of funding. The vast majority of scientists, 87% stated it is the serious problem to continue their research.

Personal satisfaction- By communicating, scientists will enjoy and feel happy to interact with non-scientists, younger public, women and also other colleagues. Most of the younger scientists take their personal satisfaction or enjoyment to communicate their work with the children. They felt satisfied

watching the young public enjoy the scenes with them (Martin-Sempere et al, 2008).

Make the name known- Scientists communicate their work in public because they are hoping their scientific work known by most of the people instead of only few other scientists. They also hope they can increase their chance of funding. The majority of senior researchers takes science communication as a way to make their name or work well known (Martin-Sempere et al, 2008).

Career development – Communicating can bring a positive impact to career. It is the way to prove one's skills, knowledge and experiences in the world and stable their career. The report on the role of scientists in public debate in 2001 stated that the majority of scientists using science communication as a useful way to advance their career, providing more opportunities for collaboration and job security.

Get to know one scientists competitors – By communicating, scientists and their competitors can have a closer contact. Its actually an effective way to interact with other scientists in different fields to improve their works or research which bring more benefits to the society. It may provide a better and details knowledge about them when competing for something like position or funds. Besides, competitors also can be a good partner in their career in the future.

Keeping track and motivated – By communicating, it is an essential way to keep track of the things we are doing. It's also one of the tools for a scientist to refer back to the different level of research and learn from our research

process. Communicating along the way can also keep motivation going to help a scientist to move forward without giving up.

Make a scientist's research more meaningful- Communicating also a way to let scientists know their work and its benefits to the society. It can help the public know more about the scientific work that carry out by scientists and the purpose of the work in order to let the public know the importance of scientists to the world.

Feedback – Feedback is an important component in every field. By communicating it, the public becomes aware of the existence of projects and can give advice and suggestions, share experiences to improve the research. Scientists can improve their research and avoiding them from doing some things that will harm the public, society or even the world.

Contribute to a positive image of science – Through communicating, it is a way to document out all the expenses and also the work to all the people especially the government and the funders. Of this, all the funder or contributors will know and think it is valuable to invest either time or resources in science. So, the funder and contributors will keep supporting the science which indirectly help scientists to solve the issue of funding. In addition, it also helps to show out the scientific contribution to society.

Become a better communicator – Communication is a useful skills to help scientists to communicate or interact more with the outside world instead of just staying in the laboratory room keep doing their research. It is actually not fair for scientists because just of their duty or jobs make scientists lose their freedom or time to enjoy the colourful activities in this world. Through <https://assignbuster.com/what-is-science-communication/>

communicating, scientists can communicate clearly actively with the public to avoid them from discriminate from the world.

In the Bodmer report, science communication is very important mainly to enhance the national prosperity in raising the public's quality and private-decision making and enriching the life of an individual. The public should have a better understanding of science to support or even to object the new technologies related to science. This is because there always have issues that appear to be largely scientific or technical brought to the major social and political implications. For example, drugs prescription, pollution, radioactive waste disposal and etc. Governments, a decision maker should prohibit the technologies that are harmful to human being and our earth. Besides, the public should know most of the new scientific method to improve their private life or daily life. For example, smoking, diet, vaccination, technologically based society, electronic gadget which all underlying on science. Public also need to understand the nature of risks and uncertainty of the scientific product because most of the product brought to the balancing of risks.

So, science communication is an important part to spread the knowledge of science to the public.

In my opinion, there are no much changes of the opinion in the understanding of science between the time of Bodmer report and now. The main difference is the attitudes of scientists think about public engagement. At the time of Bodmer report, the majority of scientists do not take care of the science communication. They focus full attention on their research and

do not want to communicate their scientific finding to public. That's why one of the Bodmer report's conclusion state that scientists need to learn to communicate in public and also learn about media and take training in communication. In the last decade, the majority of scientists have no media, communications training or the training for public engagement (The royal society, 2006). Most of the scientist in-charge in communication and a lot of training had been done to the scientists nowadays. For example, most of the universities state the science communication as a compulsory subject for every science student. Such science communication training is increasingly being offered to working scientists and also future scientists in universities and even at schools. Generally, courses, seminar and workshops are included in this type of communication training to help scientists to talk to public clearly (Besley and Tanner, 2010). Besides, the public attitudes to science and technology is not positive enough, they may become a negative anti - science. Well, after the date of Bodmer report, the public is not the deficit models anymore. Generally, there has a different opinion throughout the scientific age. The senior scientists communicate science because of the sense of duty and also to make their name better known to public. While, younger scientists take science communication as their personal satisfaction and enjoyment instead as the way to get rewards or money (Martin-Sempere et al, 2008).

In conclusion, scientists should take science communication as the need to educate the public instead of to listen, learn or debate as part of genuine dialogue. Scientists also have to take part in public engagement activities to arouse more information or methods in order to improve their research.

Scientists should interact with the public sincerely and not look science communication as a tool for them to grab more individual benefits. This is because the main purpose that every research done by scientists is to make our life better and also to cure all the problems that harm to society and the world. So, no matter it is scientists, public or media, we need to look science communication positively.