SCIENTISTS AS PUBLIC INTELLECTUALS: PUBLIC COMMUNICATION OF SCIENCE AND TECHNOLOGY IN ASIA

STATEMENT OF RESEARCH QUESTION

The primary objective of this research is to gain an empirical understanding of how and why scientists engage in public communication of science and technology (PCST), which can include mediated means (e.g., talking to reporters, granting interviews, and using social media or blogs to discuss their research) and non-mediated means (e.g., talking to citizens about their work at seminars, workshops, and public talks) with a focus on both hard scientists and social science scientists. The aims of the proposal are threefold: (1) To examine the prevalence of PCST activities among scientists based in Singapore; (2) To use the theory of planned behavior (TPB) as a framework to examine the key social-psychological factors that relate to scientists’ PCST behavior; and (3) To find out if differences exist between hard and social scientists in their PCST engagements.

To achieve these, we plan to conduct focus group discussions with scientists based in Singapore. The in-depth results from the focus group discussions will be used to formulate a standardised survey questionnaire that will be randomly sent out to scientists based in Singapore. Using probability-based sampling, we plan to target 1,000 scientists to participate in our survey. This will be the first empirical study to shed light on scientists’ considerations and perceptions toward PCST activities in Singapore. With increasing public funding for research, scientists have the moral duty to communicate their research to the public. In addition, scientists can also benefit from greater publicity in the media to continue to secure more research funding. Public communication of scientific research has also been shown to increase the impact of the studies (e.g., greater citation counts). However, while discussing research findings in the media to engage the public is widely considered as part of scientists’ jobs, only a minority of scientists are willing to engage in this activity.

The aims of this project are therefore original and innovative as this will be the first empirical study to shed light on scientists’ considerations and perceptions toward PCST activities in Singapore. The proposed research will provide insights on PCST in a different cultural milieu and media system, which can pave the way for future comparative studies between Western and Asian contexts. It will help to identify the difference in attitudes toward PCST between hard scientists and social science scientists in Singapore. Besides, the results will highlight the role of scientists and science communicators in informing the debate about those aspects of science which are of concern to the public, and contributing to a wider debate about the development of science communication policy and practice at the national level. This study will also generate original baseline data to inform policymakers of higher education in developing relevant policies to encourage scientists to engage in PCST activities.

SCOPE OF WORK FOR SELECTED PHD STUDENT

The selected PhD student is expected to conduct a comprehensive literature review in the general area of science communication and in the specific area of scientists’ engagement in public communication of science and technology (PCST). S/he will come up with a focus group plan and conceptualize the moderator’s guide, apply for ethics approval to conduct the focus group, plan and conduct the focus group discussion sessions, transcribe the focus group discussions, analyze the focus group data and write the full report based on the focus group results. Using insights from the focus group results, the selected PhD student will conceptualize the survey study of scientists in Singapore. S/he will be responsible for preparing the sample population database, design and pre-test survey questionnaire, plan and contact the scientists, administer the survey
and collect the survey data. S/he will prepare and analyze the survey data, and write the report. Parts of the reports from the study will culminate in the PhD student’s final dissertation.