

INFORMED PANEL FOR LIFE SCIENCE

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ABSTRACT

How to make effective communication among the general public, the policy-makers and scientists about science and technology?

As an effort to provide an answer to this question, we established 'the informed panel for the life science'. The informed panel could provide the informed opinions on various issues in biotechnology, which would be valuable feedback for the research, legalization, policy-making and etc. The informed panel was sampled to be representative of the general public in respect to sex, residential area and age. They were provided with various and balanced information about the biotechnology through both audio and textual format. We also induced the panel members into elaborating on the issues through two rounds of surveys. The results show our efforts were successful to some extent in getting the representative panel informed in life science.

With this informed panel, we could predict the response of the society toward specific applications in advance. It could be utilized especially in cutting-edge scientific and technological areas where the general public has relatively poor information on these areas.

INDEX TERMS

informed opinion, informed panel, deliberative polling

INTRODUCTION

There is a need for the scientists and policy-makers to know the opinions and attitudes of the general public. To get the public understanding and support for scientific and technological development, we have to take their opinions and attitudes into considerations from the beginning. Social surveys have been usually conducted for this purpose. But the general public has poor information and little interest in scientific and technological issues. So, there are arguments against the use of social surveys and deliberative polling methods are proposed as an alternative (Sturgis 2003; Sturgis et. al., 2005). But it has some shortcomings, especially in getting representative sample.

We used the informed panel method to solve this problem. We established the informed panel and used this panel to get the informed opinion on life science issues, on which scientific research and policy could be based. Our case shows that this kind of informed panel provides not only representative but also informed opinion on various issues of science.

THE SCIENCE COMMUNICATION PROCESS

Our informed panel is different from the traditional survey method in that we provided the panel with the necessary information and encourage them to ruminate on the issues. It is similar to the deliberative polling method in this respect. But our method also differs from the deliberative polling. We don't require the panel members to participate in group discussion. It is thought that group discussion process is the main obstacle to wide participation. Also group process could induce the conformity to group consensus instead of independent deliberation. Therefore, we didn't include the group discussion process. Instead, we used questions to make the panel members to ruminate on the issues.

a. panel recruit

We have recruited the panel members among the one million respondent-pool of the Mbizon, the mobile polling company. Mbizon's respondent-pool is usually used for marketing and social survey purposes. Its members are rewarded for their participation with money. We selected our panel on the basis

of age, sex and residential area and its size was 3000.

b. information and rumination

We used the questions and information to induce their rumination. Questions were delivered through two rounds of surveys. The information was provided before the second round of survey both in text and audio format. Panel members saw the text in their computer monitor while listening to the voice reading the text. The information covered various aspects of stem-cell research, GM food and forensic use of genetic information with balanced tones. The length was 6000 words in textual and 6 minutes in audio format. All the questions and information were delivered through internet and the response to them was solicited by SMS. The response was rewarded with money.

The 1st survey was conducted in September 2004 and the 2nd one in November 2004. Among the 3000 members, 45% participated in the second. We think these panel members, who completed two rounds of survey and read/listened to the information, could be regarded as informed.

We are interested in the informed opinion on stem-cell research, GM food and forensic use of genetic DB. The result shows that informed opinion were not different from the initial uninformed opinions.

The opinions or attitudes of this panel could be surveyed regarding various issues. It would reveal the opinions which the society would have if they were informed. Therefore, we could predict the response of the society toward specific biotechnology in advance. Furthermore, we could tell which factors impact the acceptance or rejection of the biotechnology.

In our case, the rumination process has not changed the attitude configuration of the panel. According to the deficit theory, the public's attitude toward the science and technology would get more favorable as they are more informed. But our case shows the information doesn't always increase the favorable attitudes.

EVALUATION

We evaluated the panel in two respects. One is how representative the panel would be. The other is how well informed the panel could be. First, we looked into the non-respondents to evaluate our method. About 42 % of the initial respondents were included in the final panel. But the young were more than the old in the number. The weighting method was employed to solve this problem. Also, the participation in our deliberation process was not related with the attitude. Originally, we had some concern that only those with strong opinion might participate in the panel. But table 1 shows that participation and prior attitude don't have any relationship.

<table 1> What effects will the biotechnology have on society?

	participated in 1st & 2nd survey	participated in 1st survey only
harmful	16.6	13.6
more beneficial than harmful	52.6	52.9
beneficial	26.8	30.2
don't know	4.1	2.7
total	100.0	100.0

Second, is the panel fully informed? We gave the questions to prompt rumination. Did that work as we supposed? The table 2 shows that about 60% of the respondents could be classified as informed.

<table 2> How have you processed the information?

listened to/read carefully	60.4
only read the text	26.6
only listen to the audio	12.3

neither listened to nor read	0.7
total	100.0 %

It is lower than our expectation. But we think this figure could be improved in future. The interval could be reduced from two months to one month or so. The number of surveys may be increased from two to three. Also the reward for participation might be increased. Although lower than our expectation, this result shows that the informed panel would provide the informed opinion for the public discussions on life science issues in Korea.

DISCUSSION

The survey of the informed panel showed that the information or knowledge level of the public are not related with the attitudes. In the case of GM food, the more informed showed the less favorable attitudes. It is contrary to the popular belief that informing the public would contribute to the favorable attitudes. As this case showed, the information panel survey would tell us the results of informing citizens.

CONCLUSION

The purpose of establishing the informed panel for life science is to encourage the two-way communication among the scientists, policy-makers and the general public. The informed panel could provide the informed opinions on various issues of biotechnology, which would be valuable feedback for the research, legalization, policy-making, etc.

With this informed panel, we could predict the response of the society toward specific biotechnology in advance. Furthermore, we can tell which factors have impact on the acceptance or rejection of the biotechnology. Our case shows that informed panel could be established and used widely. Especially, it could be used in cutting-edge science areas which the public has little knowledge of.

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