

# A Case of Scientific & Technological Communication and Theoretical discussion

Shuzhen Wang, Yun Liu

Yunnan Association for Science and Technology(YNAST),  
Huguo Road 650021, Kunming , China

## ABSTRACT

This paper discusses a case of scientific & technological communication for people in rural areas of Yunnan province through a comprehensive science book. As the sponsor of this project and the communicator, and guided by the theory of communication, YNAST reseaches the content, channel and style of communication deeply. This paper also discusses the model of science communication.

## INDEX TERMS

science/technology/communication/case

## INTRODUCTION

Yunnan is a border, multinational and mountainous province. The ethnic nationalities constitute 1/3 of the total population. Yunnan is a province ranking first in terms of minority groups in China. With varied geographical features and 94 percent of hilly land area, Yunnan has numerous high mountains and grand gorges. Because of the historical and geographical reasons, the public understanding of science and technology is relatively lower, and the situation in rural areas is more severe than in urban areas. According to the survey results made by YNAST in 2001, there were only 1.2 persons with basic qualities of science and technology in every 1000 people in the rural areas. The following table indicates this situation:

**Table 1.** The Public Understanding of Some Scientific Terms

Scientific Terms	Understanding	Misunderstanding
Molecules	6.4%	93.6%
DNA	4.2%	95.8%
Computer Software	2.6%	97.4%
INTERNET	3.9%	96.1%

Acid Rain	4.5%	95.5%
Scientific Research	4%	96%

The poor public understanding of science and technology has been one of the main obstacles for the development of economy and the progress of society in Yunnan province.

## **THE SCIENCE COMMUNICATION PROCESS**

In order to change the rigorous situation and to carry forward the spirit of science, spread scientific knowledge, facilitate scientific thinking and methods, improve scientific and technological qualities of labourers in rural areas, the YNAST subsidized 100,000 yuan of RMB and organized a group of experts in science and technology to compile and publish a book entitled “The Reading Book of Popular Scientific and Technological Knowledge for People in Rural Areas of Yunnan Province” in 2003. The contents of this book involved universe, meteorology, geoscience, biodiversity and protection, the environmental protection, the modern agriculture, high and advanced technologies, scientific understanding, human body and health care, mathematics, information technology, etc.. The book is easy to read and the price is only RMB 6.70 yuan, suitable for people in rural areas to purchase.

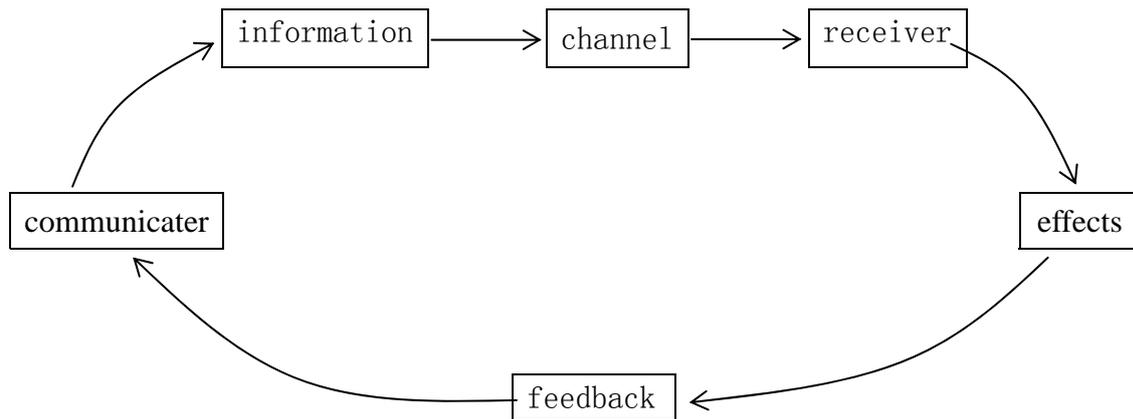
We use the principles of communication theory to direct the entire process of communication, and the communication process has following characteristics: Firstly, we chose the book as communication medium, so the costs of the communication is lower and it’s unnecessary to use any equipments for information sending and receiving. Secondly, the contents of the book were abundant, easy to understand, with many colour illustrations in the book. So the book was suitable for spreading scientific and technological knowledges in underdeveloped rural areas. Thirdly, we used the organizational communication theory to direct the communication process. The YNAST is a non-governmental organization with sub organizations in all administrative levels of the province. So we could distribute books downward from the upper levels to the lower levels quickly and control the whole communication process easily. Fourthly, we attached great importance to the interactivities between communicator and audiences. So the audiences could receive information initiatively. Last but not the least, the research of the communication effects was appreciated in order to further improve the channel and style of communication.

## **EVALUATION**

The effects of the science communication in this case were inspiring. About 50,000 people in rural areas of Yunnan province have read the books. They not only got information and knowledge from the books, but also set up the scientific attitude in their spirite. According to the survey results and feedback from the rural areas, the scientific and technological qualities of more than 60% of the people read the book have been improved.

## DISCUSSION

Science communication is a branch of communication, but it has some special characteristics. In the process of science communication, we must pay more attention to the feedback of communication effects. Because the goal of science communication is to improve the scientific and technological qualities of public, and the communication process is also a process through which people learn scientific and technological knowledges. So the effects of communication and feedback are more important in science communication than in other communication processes, and the model of science communication is a loop as shown below:



## CONCLUSION

According to the discussions above, in science communication we ought to look at communication both at the macro level of large scale communication and at the micro level of individual feedback. So the model of science communication is not a linear process but a loop. And through the ringy process, the scientific and technological qualities of public are improved.

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## **Agreement to Publish**

Corresponding author: Yun Liu

Affiliation: Yunnan Association for Science and Technology(YNAST), Huguo Road 650021,  
Kunming , China

Email address: [ynast.liuyun@126.com](mailto:ynast.liuyun@126.com)

Co- author: Shuzhen Wang

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