

## Science Communication Through Mass Media in Mother Tongue

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**Introduction:** Today, we are living in media society. According to agenda setting theory, the media is not only deciding the political issues in our society but also changing our life as well as behaviour. The role of media becomes much widened in our day to day life. Now it is not only the 4th pillar of democracy but it is in position of determining the pace of other pillars of democracy like Judiciary, executive and legislative also. In present time, we cannot imagine a society without any mass media. Mass media are deciding social ethics. With the development of satellite communication, mass communication & mass media has become inseparable part of Human life. Mass media becomes very important while communicating ideas and intends to change behaviour of people right from developing awareness to adopt an innovation.

In India, large majority of the population is illiterate. Moreover, more than 65 percent of Indian population is living in villages, bound by traditions, deep rooted attitudes and superstition. To achieve optimum development in rural areas, there is a need to develop scientific temperament in those areas. This is a challenge for any science communicator. It is only through persuasive influence of mass communication, the illiterate and backward population in India can be directed towards any social change required for development of scientific temperament. Thus, mass media has important role to play in enlightening the masses to raise the standards of their living and improve quality of life with Science & Technology.

The Indian media is under pressure of TRP. Due to this, Indian media is presenting only unfortunately sensational, hyperbolic and false stories. In these circumstances, our media is not able to explore scientific truth. Our society reflects traditional values and sometimes it reacts as orthodox society. In this situation, scientific temperament is necessary in our society. So, we have to popularize Science. The main role of media is to inform and entertain people and so we have to develop very interesting science fictions. It is obscured that science have widened gap with art and literature. We have to fill this gap through creative writings of science and technology. Mass media is using new innovative ideas of science and technology but under pressure of TRP and unethical practices, it is not able to follow through mysterious programmes. The basic postulate to popularize science is that, it should be communicated in mother tongue.

This present paper is a brief study about how scientific information and knowledge should be given in mother language of any society. In reference to Hindi language, which is the third largest speaking language in the world, this study has adopted a survey as well as controlled observation method. This shall give very useful information about how effective science communication can be in mother language irrespective of any other language.

### **Objective of the Study:**

The objective of the study is to explore the role and significance of Mother Language for communication in science through mass media in India in present perspective with special reference to Hindi language.

### **Significance of the Study:**

By this Research Study, India, though a multi-lingual country, we can select proper medium of instruction as well as common communication language for science communication and can also find out the problems in science communication.

### **Review of Literature:**

Some of the studies have been done for investigating the role of mother tongue in bilingual situations as in Baker, C. (2000), Cummins, J. (2000), Skutnabb-Kangas, T. (2000), but all these studies convey the role of mother tongue in learning process. There is no such study as in my knowledge about science communication through mass media in mother language in Indian perspective

### **Research Methodology:**

This study was an empirical study based on survey in multi language structural city Nainital. Tools used for this study were Questionnaire, Interviews and a controlled observation. Keeping in view the objectives of the study, purposive sampling technique have been adopted. For this purpose, some local students of English Medium Schools and having knowledge of three languages, English, Hindi and Kumauni were taken into

account and keeping view the limitations of questionnaire, some local residents were interviewed. We have made a questionnaire to know the media habits of the residents of Nainital city. In this study, an experiment has also been done in which control observation was made to find the role of language in science communication. In this experiment we took three groups of students having knowledge of three languages, English, Hindi and Kumauni (local dialect). These groups were formed through random selection. A science article published in Vigyan Pragati, a Science magazine was taken in to account and that article was translated into three languages English, Hindi & Kumauni. To the first group of them was given Hindi version of that article, to second group was given English version and to the third group, it was the Kumauni version. Each participant had to answer some questions based on that article.

#### **Geographical Area:**

Geographical area selected for this study was Nainital city because Nainital is a multilingual structural city. Nainital city is a prestigious centre for higher secondary education in English medium in North India. As it is a famous tourist place too, use of English language is very common over there. The mother tongue of the major natives of Nainital is either Kumauni (local dialect) or Hindi. Some of the Tibetans use Tibbetti language and there are some Bengalis also. There are many students and residents from various parts of India speaking various languages and truly project Nainital as a multilingual city. In Nainital city, the viewers of TV, readers of newspapers and listeners of Radio have mainly three language programmes- Hindi, English and Kumauni.

#### **Data Description:**

(1) For questionnaire, Number of samples : 102

All samples were between age group of 15-28 years

All these three languages were known for each sample.

The Table-2 discussed the relationship between the variable. There is a strong positive relationship between MSL to LPTV & LPNV, MCS to ALL, and LPNP to ALL. This shows that: Most suitable language (as Hindi/English/Kumauni) is positively correlated with Language in 1st priority for watching T.V. programmes and Language 1st priority for reading Newspapers & Magazine.

Most Comprehensive Language for Science is positively strongly correlated with as 1st priority for reading Newspapers & Magazine or watching T.V. programmes for getting science knowledge or Science fiction.

Language first priority for reading Newspapers & Magazine is also positively correlated with as 1st priority for reading Newspapers & Magazine or watching T.V. programmes for getting science knowledge or Science fiction.

The following Exhibit-1 discusses the description of the variables.

From the above statistics, it is clear that the Hindi media access is highest amongst all the languages. Although mother language of maximum people is Hindi, but for science knowledge to acquire knowledge. There are 22 samples whose mother language was Kumauni and maximum of them use to watch Kumauni TV programmes, but for science communication, they have a common view that, Kumauni is unsuitable for science communication.

(2) Keeping view the limitations of questionnaire, some local residents were interviewed. In interview, there was a common opinion that there is no science material in their mother language available i.e. especially in Kumauni. They asserted that mass media is very useful in spreading science knowledge among the common people in their mother language and dialect. The impact of media among people is very effective to change their views. It was observed that the people use mainly local language as medium of instruction, but, they hesitate in using local language for science communication. Traditional communication techniques have been replaced by mass media communications and the present generation have large exposure to mass media especially to electronic media.

(3) An experiment with control observation has also been done on micro level to test the role of mother language in science communication. In this experiment we took three groups of students having knowledge of three languages, English, Hindi and Kumauni (local dialect). They were 18 in number and were divided into three groups randomly. A science article published in Vigyan Pragati was selected and was translated into three languages, English, Hindi & Kumauni. 1st group was given Hindi version, 2nd group was given English version and to third group was given Kumauni version. From each participant some questions based on that article were asked. The result of this test was

very remarkable. It was seen that, the students who have given text in their mother language, performed best in comparison to other languages. This result shows that science communication in mother language is very fruitful.

#### **Conclusion and suggestions:**

English is dominating and weakening local language and dialect. There is a pre-disposition (outlook) among the citizen that there is no science material in their dialect, if it is, it will be very effective in changing the behaviour and views of residents in reference to scientific temperament. Mother language is most appropriate and effective for giving science knowledge and in order to gain science communication effectively, beyond college curriculum through media. Mass media is very useful for spreading practical science knowledge amongst people in their mother tongue. By this we can also preserve the traditional values as well as local dialect.

This study has again verified that scientific information given in mother tongue is more useful and convenient for people. So mass media should be given 1st priority for science communication and their medium of instruction should be mother language of viewers.

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