



## SCIENCE COMMUNICATION THROUGH URDU LANGUAGE

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### Abstract

*In this paper author try to establish the relationship of science communication with the mother tongue. The child starts learning with their mother tongue because child learns the things and established relationship with the language and the object from the lap of the mother. Ghandhigi realized that the greatest handicap of the prevailing system of education was that learning was being imparted through the medium of English. If we taught the children in other language rather than mother tongue it will affect the understanding level, precision of thought and clarity of ideas. On the other hand Mother tongue would enable the children to understand the rich heritage of people's ideas, emotions and aspirations, to express freely, he express his ideas in easy way and understandable. He or she will be able to express his views in speaking and writing. The student will able to use the list of contents and the indices, and to consult dictionaries and reference books in his own language. The national poet and Nobel laureate Ravindra Nath Taigore express his views in support of mother tongue when the Nizam of Hyderabad established Osmaniya University and makes its medium of instruction Urdu. Thus the Urdu plays an important role in communicating and understanding the science. Here we discuss the role of Urdu in science communication.*

**Key –Words:** Urdu, Science Communication, and Scientific Temper.



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**Introduction:** science is an important subject which is necessary for every individual and every citizen of the country. It is our constitutional duty to learn science in our mother tongue so we will understand the science in a better way. First prime minister of India Jawaharlal Nehru used first time the term 'scientific temper' in his book The Discovery of India, which was published in 1946, at that time he was the President of the Association of Scientific Workers of India (ASWI), which was registered as a Trade Union. One of the objectives of ASWI was to propagate scientific temper. This organization play an active role in developing and promoting scientific temper, but after some time it was fizzled out by the 1960s as the bulk of scientists in the country, including many who were occupying high positions, were themselves not committed to scientific temper which calls for rationality, reason and lack of belief in any dogma, superstition or manifest falsehood. For developing scientific temper we need a language through which we communicate the science. The English is not studying by every individual so we should communicate through their mother tongue. The Urdu is a

language of about 4.34 percent of the total population. It is a large population where we should provide a type of audio-visual and print material for developing the scientific temper through Urdu language. The understanding of science through a simplest way is the necessity of the nation. Prof Yashpal tries his level best to familiarize the science to children and lay man through presenting programmes in the Door Darshan. The scientific temper develops scientific thinking which removes all kinds of misconceptions, beliefs and blind faiths. The greatest exponent of scientific temper in India was our first Prime Minister, Despite all the

### **Importance of science communication in Urdu**

It is the need of the hour to provide scientific discoveries and invention to the Urdu speakers in Urdu language so they will walk with the rest of the people of India. The most of the Urdu speakers are studying in the Madarsas so the government should provide the study material in science to the Madarsa students so they will learn about the science in their mother tongue.

In India the first University was opened in April 26, 1917, whose medium of instruction was Urdu, by Nizam VII Mir Osman Ali Khan. He issued a 'farman' (royal decree) for the establishment of Osmania University. "The fundamental principles in the working of the university should be that Urdu should form the medium of higher education, but a knowledge of English as a language should, at the same time, be deemed compulsory for all students," said the decree. The move to set up the university with Urdu as the medium of instruction was seen as the first step to revolt against the supremacy of the foreign language in India. It was hailed by Rabindernath Tagore.

He wrote to Nizam: "I have long been waiting for the day when, freed from the shackles of a foreign language, our education becomes naturally accessible to all our people. It is a problem for the solution of which we look to our Native States, and it gives me great joy to know that your State proposes to found a University in which instructions are to be given through the medium of Urdu. It is needless to say that your scheme has my fullest appreciation."

According to Davis (2010) science communication/science popularization entails taking science, its discoveries to a lay public who are non-scientist.

According to Brain Trench (2008), "Science communication used to be conducted according to a 'deficit model' as one way communication from experts with knowledge to public without it; it is now carried out on a 'dialogue model' that engages publics in two way communication and draws on their own information and experiences."

Scientific enterprises run by India's small Urdu-speaking population could serve as models to help India improve science communication across the country ( *Nature* **571**, 289–290; 2019).

If we analyze the above statements it is clear that the science should be communicated according to the level and understanding of the layman. The scientist should engage the public who do not know the science with dialogue model. Example a scientist should talk to the farmers and ask them to share their experience of the thunder shower. After listening their experience scientist will explain about the thunder shower in a scientific way, in this way he will understand the causes of thunder shower in a scientific way.

The Urdu speaking people are lacking in science but they are experiencing science in their daily life. The Urdu speakers should be provided science dialogue by the experts in Urdu language and they should be exposed to the science centers for direct learning and understanding the science.

The NCERT New Delhi is publishing text books in Urdu for Urdu Speaking students in all subjects. Instead of NCERT, Delhi, some SCERT are also publishing the text book in Urdu, these SCERT's are from Karnatka, Andhra Pradesh, Bihar , Maharashtra, Tilangana State etc. These states provide instruction in Urdu medium and student learns about the science through it. It is well established fact that, if a child will taught in his or her mother tongue the teaching will be more effective and child will understand the things easily. The people will understand the importance of the science and they will use it in their day to day life. The people will understand the causes of thunder shower, rainfall and the importance of winds direction. The science will explain us about the occurrence of day and night. How the days and nights are happening? How does the season changes? These things are happening in everyday life but nobody is thinking about it in the scientific way. Thus through the science dialogue we can make them aware about these scientific facts and the Urdu speaker will understand it through their own language. The Urdu speaker will learn the science in the science centers which has been opened by the Government of India in every State Capital and some in district headquarters. If we analyse the above discussion the following points came forward.

- (1) The Urdu speaker will be benefitted from the scientific knowledge and through it we will develop scientific attitude among the Urdu speakers.
- (2) The scientific temper will be developing among the Urdu speakers.
- (3) The sizeable amount of population will try to understand the science and its importance in his or her life.

- (4) The Urdu speakers will be able to understand the new scientific development and inventions which plays an important role in human life.
- (5) A lay man will be able to understand the science in his own language.
- (6) The Science Centers are main agent of communicating science to the masses through the practical and demonstration method.

### **History of Science Communication in Urdu:**

India has an impressive scientific heritage. Since ancient times researches was carried out in the field of mathematics, astronomy, medicines and material science in the Indian subcontinent. However, there is remarkable gap exist between this scientific knowledge and the 'common' man and woman. It is observed that almost no effort has been made to bridge this gap.

After independence the first prime minister of India give more emphasis in developing the scientific temper amongst the citizen of India. The meaning of this phrase is to develop and promote scientific enquiry, attitude and analytical approach which lead to rational thinking and pursuits of truth without any prejudice. Accordingly, the constitution of India has a special provision "to develop the scientific temper, humanism and spirit of enquiry". After independence Government and nongovernmental organization makes an efforts for popularization of science through different languages. The NISCOM National Institute of Science Communication start publishing the science Journal i.e Vgyan Pragati in Hindi The science Reporters in English and **Science Ki Duniya in Urdu**. Today, NISCOM also brings out 11 professional scientific journals and publishes various popular science books (often in Indian languages).

. In 1980, science communication was given prominence in India's sixth Five Year Plan, and two years later the National Council for Science and Technology Communication (NCSTC) was established. The Council has a mandate to integrate, coordinate, catalyse and support science communication and popularisation, at the micro as well as macro level. NCSTC's programmes include training in science and technology communication, software development, research, field-based projects, and creating information networks and databases.

The first prime minister of India Mr. Jawahar Lal Nehru in early 1950 with the help of the renowned personalities of India of that time like Mr. JD Birla a renowned Industrialist, Prof. KS Krishnan a renowned physicist, BC Roy a renowned physician and then chief Minister of West Bengal took considerable interest in developing the science centers. With

the support of these gentleman and under the leadership of Shri Ved Prakash Beri, Shri Ramanatha Subramanian and

Shri Amalendu Bose, The three important and pioneer science museums was established at Pilani in 1954, Science Museum of National Physical Laboratory in 1956 at New Delhi and Birla Industrial & Technological Museum opened at Calcutta in 1959 (now Kolkatta). After these science museum some other were established in other part of the country like Visvesvaraya Industrial and Technological Museum was established in 1965 at Bangalore (now Bengaluru). The last two museums were set up and run by the Council of Scientific and Industrial Research (CSIR).

In the year 1970 the National Planning Commission Constituted a Task Force to assess the activities of the science museum which are working under CSIR and suggest the future course of actions for their growth and development. The task force gives its recommendation to establish it in all over the country because these science centers are promoting and developing the scientific awareness in the society and providing non-formal science education to the public. On the basis of the recommendation of the task force the NCSM National Council for Science Museum was came in to existence in 1978. This council initiated a programme to establish National Level science centers in the Metropolis, regional science centers at state capitals and sub regional or district science centers at district headquarters. As a result of it by the end of the financial year 2015-16 the country has 4 science museum 49 science centres and 3 science cities. Out of these NCSM has established 40 science centers, 2 science museum and 2 science museums, 9 science centers and 2 science cities were established by other Government and non government organizations.

These science centers provide direct learning of science through learning by doing. The people of all languages will be able to understand the scientific facts, principles and laws through direct observations. In this way it is historical development of science communication through Urdu Language.

### **Role of Mass Media in Science communication through Urdu Language:**

**Print Media:** The role of print media in promoting science communication in Urdu is commendable. There is some Urdu science magazine available for Urdu readers. Some Urdu magazine is published by the government and some magazine is published by the individuals or some small organizations. The famous Urdu Magazine published by NISCOM National Institute of Science Communication is **Science Ki Duniya in Urdu**. It provides scientific information to the Urdu learner in different topic like earth science, Astronomy, Physics,  
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Chemistry and Biology. Urdu science monthly or Urdu Science Mahanama magazine published from Jamia Nagar New Delhi. This monthly magazine publish different articles on the subject range from Life Science to astronomy, physics to Earth sciences and Chemistry to Biology and other varied subjects. The editor of this Science magazine is Dr. Aslam Parwez. Parvaiz. He is currently vice-chancellor of Maulana Azad National Urdu University in Hyderabad. This University was established in 1998 by an act of parliament to impart vocational and technical education in Urdu. Use of English scientific vocabulary prepares students for the international stage. This magazine is not only popular among the circle of educated people but equally popular in the Madarsa students and Urdu speakers peoples.

**Electronic Media:** Electronic media also play an important role in popularizing the science among the masses in India through Urdu language. The following programme are broadcast by Doordarshan and BBC Urdu.

1. Yeh hai India : This programme give information regarding the nutrition; Broad Cast by Doordarshan
2. BBC London Broadcast News Click Bulletin in Urdu. It gives information about the new inventions and discoveries in the field of science and technology. This news channel broadcast in radio and Television. It is most popular programme in India. It is widely listen by the Urdu speakers in India.
3. Unani Duniya Broadcast by DD Channel. It gives scientific knowledge to the viewer.

**Role of Science Centers in developing scientific temper among the Urdu Speakers:**

Science centers are open for all the people either they are educated or uneducated because it is established in such a way that a lay man can understand the scientific reasons of anything. The science centers provide working models through which a lay person will be able to understand the science. The author visited Science centre at Bhopal. In this Science Centre, I saw that a lay man was observing the model of science and he asked about those models. Author also saw that some Madarsa students visited in the science centre and they observe science models and they ask questions with the person who were incharge of that section. He explains in such a simple way that Madarsa students understand it easily. Thus we can say that the science centers are developing scientific tempers across the language and Urdu speakers can easily understand the scientific facts. The Author has another experience which I would like to share here. A team of Madarsa teachers visited Bhopal and they were stay in my friend's home, they ask me is there any visiting place? I told them that there is a science centre which is very interesting. These teachers ask me, can you help us for seeing it. I went

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with them and all Madarsa teachers visited and they show their eagerness and interest. Here I share two stories of Urdu knowing students and teachers and their interest. It shows that Science centers communicate to everyone on their own language. On the other hand if student from Madarsa will get an opportunity they will learn the science.

**The Role of Maulana Azad National Urdu University, Hyderabad in science communication through Urdu language.**

The Maulana Azad National Urdu University is a Central University established by an act of Parliament in 1998. It is a language University which has Urdu as its medium of instruction. In this University all subjects are taught in Urdu such as physics, Chemistry, Maths, engineering, Mass Communication etc. The Madrasa students in particular and Urdu knowing students in general take admission in different courses. The Urdu knowing students have a tough competition for getting admission in different professional courses. This University is doing a pioneer work in promoting and popularizing science among the Urdu knowing peoples. Maulana Azad National Urdu University provides an opportunity to the students for communicating science through Urdu Language. The main aim of this University is to link the Madarsas with the main education system of India so the students from madarsa will get the modern education through Urdu Language and it will work as a bridge between madarsa education and modern education. On 11 January 2019 Maulana Azad National Urdu University (MANUU) take a forward leap when it has joined hands with UNFPA United Nation Population Fund for empowering the Madarsa Students through Urdu. The University has started a pilot project with the collaboration of UNFPA to implement pilot project on Adolescence Education Programme (AEP) in Madrsas of Bihar.

**Summary:**

The communication of science is the need of the hour for developing scientific temper among the 4% Urdu speaking population of the country. If we see the historical background we will find that Government of India do a lot for communicating science in various language and of course in Urdu too. The some individual organization also works on it for popularizing science among the Urdu speakers and learners. Dr. Aslam Parwez whose work is a pioneer in popularizing science through Urdu Language, now he is Vice Chancellor of MANUU, Hyderabad. The Door Darshan also broadcast some science programmes in Urdu for Urdu speakers. The BBC Urdu which is widely listen in India, also present a Science programme in Urdu i.e Technology Bulletin Click.

The Maulana Azad National Urdu University also plays an important role in promoting and popularizing the science among the Madrasa students in particular and Urdu speaking population in general. Thus we can say that communication in science through Urdu is an important issue to solve this issue many agencies and individual doing a lot of efforts for popularizing science communication in Urdu.

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