

ROLE OF ENGLISH LANGUAGE IN SCIENTIFIC COMMUNICATION IN PRESENT SCENARIO

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***Abstract:** English is the most commonly used language of communication in science and thus the “predominance” of English in academic scientific research is acknowledged internationally. English is considered as a key language in current scenario. Modern era regards English as the most essential language, it is treated as a second language globally and is used as a communication medium. There exist a wide linguistic and ethnic diversity and therefore English is looked upon a medium which can bridge the gap. A rapid development in various areas such as Computer, IT, Research in various fields, Biology, Mass communication, Irrigation has created a niche for using English as a new tool for written and oral media. English has got diverse advantages and because of which it is used all over the world not because of compulsion but because of its usefulness the world has been largely dominated Scientifically, Economically and Culturally by Anglo-American countries where English has become the modern lingua franca Any scientist must therefore master English so that it can fetch international recognition and get access to relevant publications. Scientific information is cumulative, storable and retrievable. scientific knowledge is often unavailable in local languages. There exists a strong relationship between the Human Resource Development Planning and modernization and Science information/language. In this article we examine the role of English in Scientific Communication and its consequences in the context of national trends in English and local-language publishing in Science.*

***Key Words:-** English Language, Scientific Communication, Global, Scientist, linguistic*

Introduction:-

Isaac Newton composed Principia Mathematica during 1685 and 1686, and it was published in Latin; Einstein used German language for his first influential papers. Marie Curie published her work in French but the scenario today is most scientific research around the world is published in a single language that is English. Darwin's theory professes survival of the fittest and so is true for English language users globally those who can communicate in English survive in today's world. In today's era there is a rapid advancement in various sectors such as Aviation, Industry, Tourism, Internet, Media, Education and of course Science which uses only one language and that is English and therefore in order to maintain existence we need to be well-versed with English. English gained the position as the established language of scientific communication since the end of the Second World War but not without controversy. The Industrial revolution has given English the status of language of Science. It

was found that about two third of the scientists who made the revolution possible had English as a mother tongue so that anyone who wished to learn about the latest advances had no option but to acquire some competence in it either directly or through translation. Teaching and academic publication in other language was the trend until the middle of twentieth century but with the dominance of UK and US universities English has taken the elite place. This dominance of English as the common language of scientific communication has triggered some academic interest. Global scientific activities are largely been dominated by the use of English as Lingua [1]. Many Scientist's and users of Scientific information use languages other than English in their day-to-day communication which creates a barrier in the transfer of knowledge between people at large [2, 3]. Language skills play a vital part in helping people enhance their content knowledge. The context of this paper is to find out the status of English language in Scientific Communication. The fact that Science can reach masses only if it's in their mother tongue is very true. Indian languages are rich repositories of scientific knowledge, although terminologically these haven't matched the developments in European languages.

General Trend And The Global Scenario:-

The onset of the Information Age is associated with the Digital Revolution resulting in the increase in circulation of the amount of scientific information in reaching epic proportions. English has a dominating position in scientific publishing and If we intend to measure the growth of science with indices such as the number of journals, number of articles, number of patents English outgrows. While the position of other languages is found to be in declining trend with German, earlier this century in a discipline like chemistry is no longer what it was. The same trend is seen in French and Russian too. In some fields of science, the position of English is even more grave. If we take example of the field like computer science it is found that the vast majority of articles, are published in English. It is found that practically all the major journals in various disciplines are in English, from the general scientific journals like Nature and Science to the New England Journal of Medicine or Cell, even the more special journals like Lupus or Oncogene or for that sake name any journal in whatever field you are working in.

The trend is prevalent even in many journals of smaller nations like those of Slovenia for example publish also in English. Growth in the number of scientific journals is also found which according to Ulrich's periodicals has about 200 thousand publications currently which are described as "scientific" [4]. Web of Science Core Collection and Scopus index, the leading abstract and citation databases has around 12 thousand and 22 thousand sources respectively; the number of open access journals listed in the DOAJ database has reached 10 thousand. Scientific-research publication *Research Trends* conducted a study in 2012 and found that to qualify for inclusion in Scopus, the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings, the Abstract of the paper published in a journal with a language other than English must at the very least include English language [5]. The database had more than 21,000 articles from 239 countries currently in, the study found that 80 percent were written entirely in English. In the Countries like Canada whose official language is French where the province of Québec has its own

research council and means of funding research and research communication, they encourage researchers to publish their work in their own language, and also the funds are expended to develop scientific journals in French. Ideally it should be possible to work in both directions by means of translation, but there one soon encounters a funding problem.[6] According to scientists the English language acts as a gatekeeper to scientific discourse facilitating the dissemination of knowledge across national and cultural boundaries [7]. English has now established itself as a truly world language [8],[9].

Status Of Englishin Scientific Communication In India:

English is the most commonly used language of scientific communication [10]. Internationally the “predominance” of English in academic scientific research isacknowledged [11].

The necessity of Scientific communication to reach the audience arises tomake the country scientifically advancedand embed scientific temper in people. Thus, there is an urgent need for the development of scientific materials in Indian languages to reach every corner of our country. In India we have rich repositories of scientific knowledge in various languages, although terminologically these have not matched the developments in European languages. An argument that one generally comes across is that Hindi our official language and other Indian languages are not suitable for promoting science and technology.

English can be regarded as the most prominent remnant of the British colonial administration.British intrusion happened to introduce English in India. English in India at thatjuncture might have been a foreign language, but in recent times it has acquired a distinct identity. In recent years a distinct change in the attitude of both Indian and Westernpeople has been found towards Indian English. Globalization has given English a status not only in USA or the UK but also in the other developing countries like India. During the pre-independence period it was thelanguage politically imposed on Indian minds. But today the anti-English spirit or English hatred is seen diminished as thelanguage is perceived as language of hope and better life. In every sphere of life Indiansare more likely to have witnessed, orexperienced benefits of having more competence in English thanbefore [12].Another consequence of language barrier that is becoming increasingly important operates in the opposite direction: much scientific knowledge is now unavailable in local languages, as publication in English has become prevalent.

Even Scientists whose mother tongue is not English and wants to benefit and gain advantage for their careers aim to produce papers in English for publication in high-impact journals [13]. Furthermore, many journals, previously published in local languages, are now publishing mainly in English to increase their impacts on scientific communities globally (e.g., Animal Biodiversity and Conservation in Spain, Natureza & Conservação in Brazil). As a consequence, there exists an imbalance in knowledge transfer in countries where English is not the mother tongue; much scientific knowledge that has originated there and elsewhere is available only in English and not in their local languages.

Importance Of Using English In Scientific Communications:-

Today English is dominating the global scientific activities, in 1967 got the recognition as the language of international science [14]. Data statistics shows that almost around 80% of all journals indexed in SCOPUS are published in English [15]. It is observed that there is a linguistic domination of English in scientific journalism worldwide, which heavily depends on English-only sources. The English language often acts as a gatekeeper to scientific discourse disseminating the knowledge across national and cultural boundaries through the use of a single international language of science [7]. The importance of writing and publishing the research communication in English allows researchers from all over the world to communicate in one common language because mastering one foreign language instead of three or more is rather an easy task. It is thus feasible for a researcher to use one language to communicate and have access to information produced by researchers all over the world.

Problems of Using English In Scientific Communications:-

Globally there are just 5% of native speakers and It is estimated that less than 15% of the world's population speaks English [17]. In order to have a truly global community of scientists the extraordinary imbalance of the speakers who realises the importance of recognizing and alleviating the difficulties faced by non-native speakers of English needs to be minimised. Challenges faced by scientists whose first language is not English are writing manuscripts and grants, preparing oral presentations, and communicating directly with other scientists in English. One can easily communicate subtle nuances, easily in one's native tongue, which becomes difficult or impossible with non-native speakers of English. The problems faced by the non-native speakers of English is that manuscript reviewers often focus on criticizing their English. The expectations are that they should rather look beyond the language to evaluate the scientific results and logic of a manuscript to make the manuscripts get a fair review and, ultimately, to be accepted for publication which is not achieved many a times. Use of English language pose a problem in the subjects like environmental sciences required for biodiversity conservation because a large repertoire of knowledge is available in local languages in this field [18].

Limitations to the transfer of knowledge in environmental science can be while compiling scientific knowledge -for example, in global assessments, such as those by the intergovernmental platforms on biodiversity and ecosystem services (IPBES) and secondly while addressing the local environmental issues, often tackled by field practitioners and local policy makers. Thus, the above example shows the potential extent and consequences of language barriers in the two directions and propose solutions for reducing this potentially overlooked problem. Data says that there are anywhere from 17,000 to 28,000 academic journals around the world and 2.5 million articles published every year and anywhere between 15% and 35% of the journals are not in English language. In this connection, a paper has been published in the (English language) journal PLOS Biology by three researchers from Cambridge, UK, titled: "Languages are still a major barrier to global sciences". Which suggests the point that research publications in languages other than English lose out.

This is matter of great concern because in such papers, a lot is reported on biodiversity, ecology and related subjects. And many of these journals do not find any place in standard link sites.

Conclusion:

Thus, we can conclude that the fact Scientific communication needs a universal language is unavoidable. The acceptance of English as a global language without going through a true democratic process is a bare truth, but having a universal form of communication does allow for a wider scope and better understanding which ultimately lead to scientific progress. The position English language has earned as the de facto global language of the science is not likely to change anytime soon. The only solution is to Optimize communication among members of the international community of scientists, and thus advancing scientific progress, through the elimination of obstacles faced by non-native speakers of the English language. The scientific community can work together to achieve the ideal of the use of language.

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