

Language Bias in Self-Learning and its Impact on Enrolment in National Open School

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National Open School (NOS) has been functioning since 1989-90, and imparting education at the Secondary and Senior Secondary Stages. The mediums of instruction in NOS till 1994 were Hindi and English. Enrolment status of students in these two mediums demonstrates some distinct characteristics. In this paper the author tries to identify those features. It is revealed that there is no significant difference in mean enrolment of English and Hindi mediums, both at the secondary and the Senior Secondary Stage of NOS. As a matter of fact, the self learners, with better language skills do not have any language bias but the translated distance learning materials available in Indian languages are often clumsy and wrongly presented. As a result, the self-learners are unable to select the right learning material. Ironically enough, when they select the regional language, they find that they cannot process the material successfully. DE materials do not take into account the diversity of language across different subject areas. The author finally concludes that NOS should initiate action to extend its activities in other important Indian Languages to make this system of Distance education more accessible to the people, and suggests that NOS should take more care to produce materials of some subjects in Hindi and in other Indian Languages, so that NOS would become more acceptable in India, a country with linguistic plurality.

Introduction

The mediums of instruction at the secondary and senior secondary stages of National Open School were English and Hindi, till 1994 (Gaba, 1994). The study materials for various subjects were prepared accordingly in English and Hindi by the NOS. In an educationally heterogeneous and multilingual country like India, the registration pattern in these two mediums exhibited a sharp contrast to each other. As a matter of fact, English is not the mother tongue of most learners in NOS and since self-learning, largely depends on the linguistic skill of the students (4), the enrolment pattern in these two mediums differs widely.

The subject or the course often imposes some kind of limitations on the learners while selecting the proper medium. Available translations in Indian Languages, for example would show that the problem instead of getting solved, gets confounded (Ramanujam, 1993). The existing vocabulary in many Indian languages for example may not cover the latest advancement in science and technology. In such cases translation does not help much. On the contrary, the language used in translation becomes decontextualised. This impedes the process of learning. So enrolment

in NOS for various subjects in English and Hindi mediums exhibits some distinct characteristics, both at the secondary and the senior secondary stages.

This paper intends to make a comparative study of the trends of enrolment in Hindi and English mediums for various subjects at the secondary and the senior secondary stages of NOS and to investigate whether choice of learning mediums by the self learners has any correlation with the subjects or courses of study at the two stages of NOS.

Methods and Techniques

Data relating to the status of enrolment in various courses, in the two mediums of instruction were supplied by National Open School, New Delhi, for the academic years starting from 1990-91 and onwards till 1993-94 (Gaba, 1994).

To find out the subject-language correlation, the academic year 1993-94, is selected as the sample year. Then t-test is conducted for this academic year to find out whether null-hypothesis is acceptable at a particular level of significance. The proposed null hypothesis in this t-test is: "There is no significant difference in the enrolment rates of Hindi and English mediums at the secondary and senior secondary stages of NOS".

Results and Discussions

Table 1 shows the enrolment rates, for the academic years 1990-91, 1991-92, 1992-93, 1993-94, in English and Hindi mediums for secondary stages taken together.

Table 1 Enrolment Status in Hindi and English mediums in different Academic years.

Academic year	Enrolment in English medium	Enrolment in Hindi Medium	Total Enrolment
1990-91	13,316 (32.5)%	27,568 (67.43)%	40,884
1991-92	13,501 (38.81%)	21,280 (61.18%)	34,781
1992-93	19,874 (37.10%)	33,693 (62.89%)	53,567
1993-94	21,043 (33.58%)	41,618 (66.41%)	62,661
Total	67,734	12,4159	19,1893

Source*: All India Registration Status of Students : National Open School, New Delhi.

Enrolment level in Hindi and English mediums more or less exhibits a constant trend in the academic years under study. Enrolment in English medium varies in between thirty percent (30%) to forty percent (40%) of total enrolment in both the stages while that in the Hindi medium remains confirmed within seventy percent (70%) and sixty percent (60%). Enrolment in the intermediate academic years like

1991-92 and 1992-93 for English medium was slightly enhanced while that in the Hindi medium dropped proportionately.

In Table 2, enrolment rates for the academic year 1993-94 are recorded subject wise, for English and Hindi mediums, to justify the significance of difference in enrolment.

Table 2 Subjectwise enrolment of students in English and Hindi mediums for the Secondary stage (1993-94).

Subject	Enrolment in Hindi Medium	Enrolment in English Medium	Total Enrolment
Mathematics	12,067	4,608	16,675
Science	15,410	4,904	20,314
Social Science	20,715	8,767	29,428
Economic	9,017	8,170	17,187
Commerce	2,223	3,533	5,756
Home Science	6,661	6,014	12,675

Source: *All India Registration Status of Students, National Open School.

Table 3 Subjectwise enrolment of students in English and Hindi Mediums for the Senior Secondary stage (1993-94)

Subject	Enrolment in Hindi Medium	Enrolment in English Medium	Total Enrolment
Mathematics	1,764	2,804	4,568
Physics	1,829	3,282	5,111
Chemistry	1,818	3,267	5,085
Biology	1,437	2,157	3,594
History	10,679	2,314	13,011
Geography	4,862	1,657	6,519
Political Science	11,612	2,779	14,391
Economics	7,719	3,919	11,638
Commerce	2,100	2,481	4,581
Accounts	1,742	2,070	3,812
Home Science	3,671	1,416	5,087

Source: *All India Registration Status of Students, National Open School, New Delhi.

Subjectwise enrolment in Hindi and English mediums, at the secondary and senior secondary stages shows some interesting features. At the senior secondary stage, enrollments in the science based subjects like Mathematics, Physics, Chemistry, Biology in English medium are higher than those in the Hindi medium. This feature is observed also in the subjects like Commerce and Accounts, both at the secondary and senior secondary stages. However, enrolments in science based subjects for Hindi medium have surpassed those in the English medium at the secondary stage.

So, subject bias at this stage does not appreciably influence the choice or selection of mediums by the DE learners.

In Table 3, estimated t-values and critical t-values for secondary and senior secondary stages are recorded to justify the significance of difference in subjectwise enrolment in English and Hindi mediums.

Table 4*: Calculation of t-values for acceptance or rejection of Null-Hypothesis

Stages	Degree of freedom (df)	Calculated t-values	Levels of significance	Critical t-value from table	Remark
Secondary	10	1.78	0.10 0.10	1.81 3.17	Null-Hypothesis accepted
Senior Secondary	20	1.69	0.10	2.84	Null-Hypothesis accepted.

*Reference :— Analysis of Data : Study material MA(DE). IGNOU, New Delhi

The table 3 revealed that the calculated t-value for the secondary stage is 1.78, which is less than the critical t-value necessary for the rejection of the null-hypothesis at 0.10 level for $df=10$. So the null-hypothesis is accepted at this level and it may be concluded that there is no significant difference in the mean enrolment rates of English and Hindi mediums at the secondary stage of NOS. It may be noted that table t-values are 1.81 at the 0.10 level of significance and 3.17 at 0.10 level of significance for $df=10$ (6).

The obtained t-value for the senior secondary stage is 1.69, which is less than the critical table value of t necessary for the rejection of the null hypothesis at the 0.10 level of significance for $df=20$. So, in this case also the null-hypothesis is accepted and it may be concluded that there is no significant difference in the mean enrolment rates of English and Hindi mediums at the senior secondary stage of NOS. It may be noted that critical t-value at the 0.10 level of significance is 1.72 and that at 0.10 level it is 2.84 for $df=20$ (6).

Translating DE materials into Regional Languages

We are, at best, a second language speech community. Most of the learners in the open learning systems belong to educationally backward, disadvantaged sections of the society. However, the DE materials in English as they are today, are either insensitive to the needs of these learners (2) or attend to them in limited, inappropriate and adhoc ways (Koul et al, 1993). Due to the backlog of language needs, learners from non-Hindi speaking regions are reluctant to join NOS. This trend is very predominant in the subject areas such as the social sciences at the secondary and senior secondary stages.

But the picture is somewhat different in the science based subjects, like Physics, Chemistry and Biology at the senior secondary stage, where the enrolment is higher

in English medium. The reason possibly lies with the study materials of these subjects. Due to development in all the branches of science, suitable vocabularies or terminologies for the DE materials in Hindi, or in other Indian languages are extremely rare. Literal dictionary translation does not help the self-learners much in these subjects (Paliwal, 1992). Most of these subjects are guided by the structural view of language which fails to emphasise the communicative aspects of language. So the DE students preferred to opt for English medium in these subjects, as the translated study materials available in Indian Language are clumsy and the concepts are mixed up, or wrongly presented (Paliwal, 1992).

Linguistics and the natural sciences may be of diverse disciplines and a cynic would perhaps shrug at the very thought of getting specialists from these streams to work together towards a common end. Literal translations are often hard to come by in many subjects. There are scientific terms and formulae, borrowed from Latin or Greek and, of course, English. These expressions lie deeply embedded in the scientific consciousness. So the question is whether the regional languages are robust and malleable enough to accommodate these foreign terms. Retracing attempts to replace scientific terminology, largely borrowed from European languages, with nomenclatures drawn from local languages, researchers say that scientific historians in the past have underlined the need for greater use of local words, to give perspective to local scientific perceptions. Rabindranath Tagore's *Bishwa Parichay* reflected the need for this flexibility (Tagore, 1937).

Tagore insisted that "scientific semantics could be unhinged" and was not the preserve of the esoteric. Keeping intact English pronunciation was not enough, though admittedly, certain terms from that language must be borrowed for lack of substitutes. Ancient sages like Bhasker Acharya, whose medium of dissemination of scientific knowledge was Sanskrit, were perhaps better placed. For Sanskrit was a more robust language in which different shades of meanings and connotations often go beyond the root word.

If a regional language is "robust and malleable" enough, to accommodate foreign terms, then the terms from Hindi, Urdu, and even Persian could be borrowed to add a dimension to the new scientific language in that regional language. However, this technique has been tried in the sciences of Physics, Chemistry and Anatomy in different regional languages, but not so in the relatively new disciplines like geology, computer science, bio-technology and anthropology.

Conclusion

National Open School must venture to extend the instructional process in other important Indian languages right now, to make it more accessible to the self-learners. National Open School should also take more care to produce self-instructional study materials of science based subjects in Hindi and other Indian Languages. Translation, as a process, should transcend the more literal and render

the meaning in clear, simple terms in a language known to the learners. Subject specialists developing these courses should be aware of the language implications for their subjects because learning and the language of learning (medium) are crucially interrelated (Koul et al, 1993).

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