A Study of Factors Affecting Enrollment in Different Subjects in the National Institute of Open Schooling

Project Report

Project Chairman
Dr. S.S. Jena

Project Director
Dr. Kuldeep Agarwal

Principal Investigator
Mr. Sukanta Kumar Mahapatra
Academic Officer (Sociology)

National Institute of Open Schooling
A-24/25, Institutional Area
Sector-62, NOIDA
Uttar Pradesh- 201309

Introduction

Open Schooling in India is being operationalised by the National Institute of Open Schooling (NIOS) at the national level having the study centers across the country and the State Open Schools (SOSs) at the State level. So far 16 states have set up SOSs.

NIOS provides learner-centric quality school education, skill upgradation and training through open and distance learning. It promotes a dynamic flexible system of Open Schooling for reaching out to prioritized client groups viz., school drop-outs and marginalized groups such as rural youth, urban poor, girls and women, scheduled castes (SCs) and scheduled tribes (STs), backward classes, minorities, differently abled and ex-servicemen to universalize school education.

The delivery of education by the Open Schools is through the Open and Distance Learning (ODL) mode of education. This system is characterized by aspects such as:

- From classroom to anywhere
- From teacher centric to learner centric
- From teacher as an instructor to teacher as a facilitator
- From mainly oral instructions to technology aided instruction
- From fixed time learning to anytime learning
- From "you learn what we offer" to "we offer what you want to learn"
- From education as one time activity to education as lifelong activity.

The admission in Open School is given to anybody who intends to have education through ODL mode. However, they give special attention to provide education to those who are unable to attend formal schools for a variety of socio-economic reasons, as well as to those who for similar reasons missed opportunities to complete school education. In a way, the open Schools provide a "safety net" to school drop-outs so that they may not remain under educate.

The NIOS alone with its limited infrastructure cannot provide adequate responses to the educational challenges that could be met through the Open and Distance Learning (ODL) mode in the area of open schooling/continuing education. There is a need to create a network of apex organizations for open schooling at national and state level. In order to translate this idea into practice, the NIOS has been pursuing with the states for quite some

time to set up the State Open Schools (SOSs). Sixteen States (Andhra Pradesh, Bihar, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, West Bengal, Assam, Chhattisgarh, Uttar Pradesh, and Delhi) have already set up State Open Schools. Some more states viz., Orissa, Jharkhand, Goa, Bihar and Himachal Pradesh are also in the process of setting up SOSs.

To facilitate cooperation and interaction among NIOS and State Open Schools and other concerned agencies for expansion of activities pertaining to Open Learning System, a National Consortium for Open Schooling (NCOS) has already been established with NIOS as its Secretariat.

The Open Schooling System in India, which is at a take-off stage, has to have a great leap forward to meet the challenge of making the nation a learning society in a reasonable period of time. The Open schooling system with inbuilt flexibilities is going to be a major programme delivery mode of study up to pre-degree level. In India, we are at a crucial moment when a big thrust needs to be given to the Open Schooling System.

It should be the endeavor of the Open Schooling System that NIOS and SOSs upscale their open Schooling programmes with quality assurance for reaching the unreached and contribute substantially to meet the targets of universalization of Secondary Education as envisaged under RMSA. In light of this study is aimed to examine the factors affecting enrolment in different subjects of NIOS. The study is limited to the academic subjects offered by NIOS at the Senior Secondary stage only.

Objectives of the Study

The objectives of the present study are

- To investigate into the factors that help in increase or decrease of enrolment in various subject during the last five years.
- To get feedback in different academic subjects which will help in improving the content of the Self Learning Material (SLM) produced by NIOS?
- To find out the need of learners in terms of material or otherwise which the NIOS may consider producing at a later stage.
- To obtain learners' views on popularizing the courses/subjects of NIOS.

Methodology of the Study

The universe of the study was enrollment of learners in all academic subjects in at the Senior Secondary stage from 2006-07 to 2010-11. After taking enrolment data from the documents like Annual Reports of NIOS and some relevant data from computer Unit, the Trend Analysis of Enrolment was prepared.

For obtaining opinions/suggestions about factors affecting enrollment in academic subjects at the Senior Secondary stage, questionnaires were prepared for (i) Learners and (ii) Constituents NIOS. Besides administering the questionnaires, the principal Investigator personally visited the following states and interviewed the coordinators of some study centres.

- Orissa
- Andhra Pradesh
- Maharashtra
- Delhi

Conclusions and Suggestions

Under the present study on "**Factors affecting Enrolment in different subjects in the National Institute of Open Schooling (NIOS)"**, certain significant steps taken include the following;

  I.   Need analysis regarding substantial increase in enrolment under the open schooling system (NIOS and State Open Schools)
 II.   Trend analysis of enrolment in NIOS

- The study was conducted to find out the factors having effect on enrolment in different subjects in NIOS at the Senior Secondary stage.
- The enrolment data at the Senior Secondary stage from the year 2006-07 to 2010-11 reveals that year-wise enrolment   continued increasing @ from 8.91% to 16.96% . Whereas enrolment in 2006-07 was 3, 40,342, it rose to 4, 58,055 in 2010-11. The subject wise enrolment also generally shows year-wise increase during 2006-07 to 2010-2011.
- It may be pointed out that as against the enrolment of about 5.2 lakh at the secondary and the senior secondary stage during 2012-13, the approved capacity is about 10 lakh.

It means that within existing infrastructure in NIOS study NIOS can accommodate about 10 lakh students in the secondary and the senior secondary courses. What is needed is to take appropriate steps to increase enrolment in different subjects through various means such as (i) making the study centres equipped with adequate facilities for facilitating study of students, (ii) ensuring quality of student support services through appropriate teaching learning strategies, and quality of study materials, (iii) proper monitoring of the entire programme, and (iv) facilitating the students in formative and summarise evaluation.

- Keeping in view the above, the study strived to visualise the factors affecting enrolment indifferent subject at the Senior Secondary stage and thereafter solicited views of students, tutors and coordinators of study centres through separate Questionnaires for (i) student (ii) tutors of study centres and (iii) constituents of NIOS. The Principal Investigator interviewed some Coordinators of Study Centres in the states of Maharashtra, Andhra Pradesh, Odisha and Delhi.

Need for substantial increase in enrolment

- The Rashtriya Madhyamik Shiksha Abhiyan (RMSA) has envisaged that 15% of the target enrolment at the Secondary and the Senior Secondary stage may be taken care of by the Open Schooling System (NIOS and State Open Schools). This system is required to enrol about 150 lakh students' vis-à-vis the present coverage of about 40 lakh students only.
- The scope of the present study is limited to find out the factors affecting enrolment in different subjects in the Senior Secondary Course of NIOS. An overview of the trend in this regard is given in chapter II.
- The study mainly found the followings as the factors having bearing on enrolment in different subjects.

Academic Factors

Student Support Services   including the following
- Quality of Study Material
- Personal Contact Programme
- Tutor Marked Assignments
- Teaching – Learning Strategies
- Examinations

Non Academic Factors

- Publicity of NIOS Courses
- Family Income v/s choice of subjects

- Preference of subjects by learners
- Gender-wise preference of subjects by learners
- Location wise (Rural /Urban) preference of subjects
- Categories of learners (General, OBC,SC, ST)v/s Preference in subjects
- Preference of subjects by learners in different regions of the Country
- Income range of learners vis-à-vis Preference of subjects
- Education level of father of learners vis-à-vis preference of subjects by learners
- Educational level of mothers of learners vis-à-vis preference of subjects by learners.
- Perception of students about usefulness of Personal Contact Programme vis-à-vis Choice of Subjects.

The conclusions and suggestions about academic factors having bearing on enrolment at the senior secondary stage have been mentioned in details in **Para** – 4.4.

Non Academic Factors

The conclusions and suggestions about non-academic factors having bearing on enrolment in different subjects are as follows.

- The subjects preferred by learners of **different family income groups** are English, Mathematics and Economic. The next preference of almost equal importance is for Home Science, Physics, and Sociology. Thereafter preference has been given to Commerce/Business Studies, Accountancy, Biology, and Computer Science.
- The preference of subjects, **in general**, is for the subjects, English, Mathematics Physics, Biology, Political Science, Commerce/Business Studies, Psychology, Computer Science, and Mass Communication.
- The data regarding preference of learners living in rural and urban areas revealed the following.
- The learners living in rural as well as urban areas mostly preferred English, Mathematics, Physics, Economics, Sociology, Commerce / Business Studies, Accountancy
- The students in rural areas preferred more the subject of Home Science vis-à-vis the learners living in urban areas.

- The data regarding preference of subjects by learners reveals that English and Economics are preferred more by General category students. The OBC category students preferred more English, Mathematics, History, Political Science, followed by Physics, Chemistry, Commerce/Business Studies, Home Science, Computer Science, Sociology and Painting.
- The **Scheduled Castes** students preferred more the subjects like Economics, Home Science, Sociology, English, Commerce/Business Studies, Computer Science.

- The **Scheduled Tribe Students** preferred more the subjects Mathematics, Physic, Economics, Home Science, Commerce /Business Studies, Sociology, Mass Communication, Biology, Urdu. They did not prefer Hindi, English, History, Geography, Political Science, Accountancy, Computer Science, Painting, Data Entry Operators, and Environmental Science at all.
- Looking to region-wise preference, the data revealed that English is most preferred subject in Southern region and in Western region. Biology and Mathematics are most preferred in Eastern region. Economics is most preferred in Northern region.
- Looking to co-relation of income of learners with choice of subjects, it shows that English is preferred most by learners in various income ranges (including unemployed learners).

  The next preference in all income ranges is of Economics, Commerce /Business Studies, Sociology, Computer Science. In highest Income Bracket of Rs. 6000-9000, preference of some subject has declined sharply vis-à-vis preference in other income groups. This is the case in respect of Hindi, Urdu, Mathematics, Chemistry Political Science, Home Science, Psychology, and Mass Communication.

- The data reveals that English, Economics and Mathematics are preferred by students irrespective of various educational levels of their fathers. It transpires from the data that educational level of fathers of learners is **not** a significant factor in choice of subjects by learners. This also holds well in respect of educational level of mothers.
- Under the present project, the relation between first choice of subjects by learners and their perception about usefulness of PCPs was also studied. It was found that the learners who chose English and Mathematics though that Personal Contact Programme (PCP) classes were useful for them.

Certain Administrative Aspects vis-à-vis Enrolment

Publicity
I. The publicity of NIOS courses for admission needs to be up scaled. The suggested modes operands is as follows

- Publicity in national newspapers, in state level newspapers and in local level newspapers periodically. The advertisement may appear at prominent places.
- Publicity through Radio and TV at prime time.
- Sending letters to the fail students of the boards of school education informing them about availability of the open schooling system, its characteristics and detailed guidelines regarding admission, fee, material and methods and the examination system.

- The existing students of NIOS may be used to publicise the NIOS courses and programmes. The matter may be discussed with them in Counselling Sessions' and in the Personal Contact Programme (PCP).
- Involvement of the coordinators of the study centres of NIOS during admission time needs to be revived. The students may be advised to avail the services of the study centres for on-line admission. The off-line admission facility may also be provided in the Study Centres. NIOS may give incentives to the study centres for attracting students and providing them requisite facilities during admission. Some counselling sessions may also be organised in the study centres on some specified dates during admission period.
- The publicity for open schools may form as integral part of the publicity under RMSA. NIOS may approach RMSA in this regard.
- NIOS may also remain in touch with some educational development sectors (Education, Social welfare, Agriculture, Rural Development, Industries, Health) for publicity about NIOS programmes and courses.

Allocation of Study Centres

It transpires from the study that a substantial number of students are required to travel about 10 km or more for attending the Personal Contact Programme (PCP) in the study centres allocated to them. It discourages them to attend PCP classes or even their continuation in NIOS courses for want of facilities nearby their places of residence. Efforts need to be made to ensure that the study centres may be allocated within five kilometres from the place of their residence.

Certain Academic Aspects vis-à-vis Enrolment

Self Instructional Material (SIM)
(i) The Self Instructional Material (SIM) of NIOS is perceived to be 'heavy' or 'lengthy' mainly due to the fact that at the Senior Secondary stage the course of two years (class XI and XII) is covered in one year. In CBSE and certain other Boards, the Examinations are taken in the course of class XII only. NIOS may consider reducing the curriculum load on its students.
(ii) The lay-out and get up of the study Material of NIOS needs to be improved to attract students. The materials are required to be produced in multi-colour and modular form. Each module needs to be self-contained as far as possible.

Media and ICT Inputs

(i)   NIOS needs to ensure that the audio and video programmes as complementary and supplementary inputs to the printed study material are made available to students at the study centres.

(ii)   The audio and video programmes may be broadcast/telecast at prime tome to enable the NIOS students to make profitable use of them.

(iii)   Good media programmes prepared by NCERT may also be procured by NIOS for use by its students.

(iv)   The ICT inputs for the students which are at preliminary stage need to be upscale for benefit of its student. Among other things, the Web Radio Programme of NIOS needs to be expanded on priority.

(v)   NIOS may video capture effective lectures of good teachers and experts (Subjects related lectures) and broadcast/telecast them periodically on prime time.

Teaching Learning Strategies

The important aspects of the teaching learning strategies include:

- Self Instructional Materials supplemented by Media and ICT Inputs
- Personal Contact Programme (PCP) and
- Tutor Marked Assignment (TMA)

Personal Contact Programme (PCP)

Some observations related to PCP include:

–   Generally the study centres are not well equipped for organising Personal Contact Programme (PCP) effectively.

–   Science and other equipments are not sufficient.

–   Good Tutors in all subjects are not generally available. This affect effective conduct of PCP

–   Only a few students attend PCP classes.

- Taking note of the fact that proper organisation of PCP in the study centres is an important teaching learning strategy, the study centres should emphasise its importance in the "Counselling Sessions"

Strictly speaking, as per philosophy of the Open Schooling system, the students may be given liberty to attend PCP classes as per their individual needs. However, it has been suggested through feedback to questionnaires that some compulsion in attending PCP

may be introduced. It may be suggested that attendance in 50% of the stipulated number of PCPs may be made compulsory. The modus operandi of its operationalization may be decided by NIOS. Placing the Personal Contact Programme (PCP) on a sound pedestal will be an important step in ensuring credibility of the open schooling system of NIOS in general and of the study centres of general and of the study centres of NIOS in particular. It will flash a positive not about effectiveness of the open schooling system of NIOS which will be conducive for substantial increase in enrolment.

Tutor Marked Assignments (TMA)

NIOS prepares three Assignments per subject. The students are required to complete the assignments and submit the same to their study centres by stipulated dates. The Tutor at the study centres are required to evaluate (mark) the assignments. The comments /suggestions on the Assignments responses need to be shown to the students so that they may come to know about their strengths and weaknesses. It appears that the study centres are not generally serious about the 'Tutor Marked Assignments (TMA).

It is suggested that TMA should be considered a significant teaching learning strategy under the open schooling system. Like comprehensive and continuous Evaluation (CCE) in the formal schooling system, the Tutor Marked Assignments may also be given due weight under the open schooling system. It will sustain interest of students in their studies which will ultimately go a long way in increasing enrolment of students. Some suggestions in the regard are as follows:-

(i) The students may be asked to solve the Assignments in PCP classes after making through preparation at home. The questions (Assignments) are already known to the students. Hence solving one question in each subject at a time in PCP classes may not be burdensome for them. Solving assignments at home may not be a good strategy particularly when marks of TMA are to be taken into account in the overall results.
(ii) The comments/suggestions of Tutors of Tutor Marked Assignments (TMA) should be shown to the students. They may retain Xerox copies of TMAs.
If these steps are taken meticulously, it would be a good strategy for knowing their strengths and weaknesses and raising their achievement levels.