How "Open" is Open School in India?

A Learners' Perspective

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Abstract: In India, both national and state governments, provide opportunities for Open and Distance Learning through National Institute of Open Schooling (NIOS) and State Open Schools (SOS). These have been designed as affordable, flexible and accessible systems, keeping in mind, those from disadvantaged sections. In this paper, the relationship between the intended flexibility and accessibility of the ODL systems within India and currently enrolled learners' use of these facilities is being examined. Through this analysis, we compare the national and state level systems across two Indian states so as to compare their functioning within each state and across both states. Through a socio-demographic profile of learners, it is also assessed whether these systems overcome barriers of accessibility and resource constraints or not.

1. Introduction

Opportunities for education in India, especially in the post-elementary stage, continue to be a challenge. Transition rates from elementary to secondary levels are critically low, numbers of secondary schools are sparse and opportunity cost for continuing secondary education is high. Open and distance learning (ODL) education systems are designed to overcome all of these hurdles that inhibit universalisation of secondary education. In India, both national and state governments, provide opportunities for ODL through National Institute of Open Schooling (NIOS) and State Open Schools (SOS). These have been designed as affordable, flexible and accessible systems, keeping in mind, those from disadvantaged sections. In this paper, the relationship between the intended flexibility and accessibility of the ODL systems within India and currently enrolled learners' use of these facilities is being examined. Through this analysis, we compare the national and state level systems across two Indian states so as to compare their functioning within each state and across both states. Through a socio-demographic profile of learners, it is also assessed whether these systems overcome barriers of accessibility and resource constraints or not.

This analysis is based on a survey of 2,000 learners and 40 Accredited Institutions[1] (AIs) in Indian states of Rajasthan[2] and Andhra Pradesh (AP) (undivided[3]), chosen through purposive sampling, capturing a variety of learners. The selection of these two sample states was based on a number of criteria. Low level of age appropriate enrolment (less than 50%) coupled with disparity between sex-wise and social-category wise enrolment are features of both these states. Rajasthan has high sex-wise disparity in secondary (140 boys for every 100 girls enrolled) and higher secondary (160 boys for every 100 girls enrolled) education while AP has a slight disparity between girls and boys enrolment only in higher secondary education (102 boys for every 100 girls) (Census 2011). Both states have presence of NIOS and SOS for over a decade, allowing us to contact and sample a large number of learners. In AP, NIOS Regional Centre was established in 1995 and was the first Regional Centre in Southern India. Andhra Pradesh SOS (APSOS) was the first State Open School society in the country, set-up in 1991. Between 1991-92 and 2007-08, about 9,00,000 learners had enrolled and 4,60,000 learners had completed the course (AP Open School Society). Established in 2005, Rajasthan SOS (RSOS) had about 5 lakh learners enrolled in their first decade of operation (as of 2014-15). In the academic year 2014-15, about 50,000 learners had enrolled for secondary level and about 77,000 learners had enrolled for higher secondary level in RSOS (RSOS, 2015). These enrolment numbers are the highest in the country.

The analysis focuses on how divergent the actual processes are from the intended ones for entry, continuation and completion, and compares both NIOS and SOS in the two sample states. The results show that the gaps between intended and actual are wide in most cases, this being the least for the APSOS.

2. Why India needs Open Schooling at Secondary level

With the implementation of Right to Education Act in 2009, India is moving fast towards universal basic education leading to pressures on the secondary education system to expand. The enrolment ratios at secondary and senior secondary stages are low and the gender, social and regional disparities are being very high (UDISE, 2013-14) (UDISE, 2014-15). The country is facing a major challenge of enhancing the access at secondary and senior secondary levels as it currently reaches only about 40% of an estimated 137 million population in the relevant age group (Menon, 2013). There are a number of factors that restrict the pursuit of secondary education. Out of pocket expenditures on schooling tend to force the students, especially those from lower income quintiles households, to exit the system. In addition, lack of appreciation for secondary schooling in general, responsibility of sibling care falling primarily on girls and parental bias against girls' education at secondary level, leads to dropping out by girls (NSS, 2010), (Abrioux, 2009). On the other hand, the supply-side constraints for universalisation of secondary and senior secondary education include insufficient and uneven distribution of school infrastructure, facilities, and resources and effective teachers (NIOS, 2016). Such conditions indicate that ODL is a critical answer to address the increase in demand for secondary education (Kanwar, 2013) (Phillips, 2007) as it ensures learners access to education in a convenient way by overcoming specific challenges associated with schooling, in terms of distance, cost, access, students' need to supplement family income {(UNICEF, 2009), (Phillips, 2007), (Onwe, 2013), (NIOS, March 2014), (Phineas, Nov 2012)}.

In India, the National Open School (NOS, later converted to National Institute for Open Schooling (NIOS)) was established in 1989 (NIOS, 2016). It paved the way for various State Open Schools (SOSs) to be established across the country, most of them affiliated to their respective State Boards or follow NIOS curriculum. In India, a national-level ODL system is as critical as a state-level ODL system. It is easier for SOS to collaborate with State Department of Education at district and sub-district levels for deeper penetration and reaching the unreached as compared to NIOS. Presence of SOS in a state, however, does not undermine the role of NIOS in the same state. NIOS acts as a guide for SOS at the time of setting-up, providing reading materials and assisting in conducting examinations.

3. Embedding Flexibility and Accessibility within the ODL System in India

The concept of ODL ensures open access, flexible delivery of instruction, learner-centred approaches to course design and delivery, mediated two-way communication, multi-channel learning, multimedia, open learning, lifelong learning and experiential learning (Phineas, Nov 2012). Flexibility is ensured through modalities, timing, place, age and admission criterion; learners choose their own subjects and study in their own time and space; and, effective use of Information and Communication Technology (ICT) in teaching-learning process (UNESCO, 2002). Easy and equal access is provided to over-age and/or disadvantaged sections of the society. Cost-effectiveness makes the system inclusive for economically disadvantaged sections. Learner-centered approach is visible through curriculum design and courseware development and choice of subjects available (Rumble & Koul, 2007), (NIOS, March 2014). Flexibility and accessibility have been embedded at different stages for both NIOS and SOS.

3.1 Who Accesses the ODL System?

Both systems lay special emphasis on enrolment of learners from most disadvantaged sections of the society. NIOS enrolment is predominantly male, with an urban-centric enrolment belonging to the General social category (i.e. not backward social group) in both states. RSOS enrolment has more females than males, more from rural than urban areas but more from 'General' social group (CBPS, 2016). APSOS has an equal number of males and females enrolled, primarily belonging to the rural areas and General social group (APSOS, 2015). These are also reflected in our sample for both states.

In Rajasthan, a large percentage of learners interviewed were self-employed in non-agricultural activities (38% for NIOS and 33% for RSOS). RSOS has a greater penetration in the rural sector. About 57% of NIOS learners had attended a private school as against 22% of RSOS learners prior to their enrolment in the ODL system. Overall, 68% of learners reported that they had failed the last class they had attended in school. Out of these, a higher percentage was enrolled with NIOS than RSOS. Out of all the male learners interviewed, 90% were never married while 75% of female learners were never married. A higher percentage of married learners (both males and females) were enrolled with RSOS. In AP, a large percentage of learners enrolled with both NIOS (29.38%) and SOS (38.16%) indicated that they were full-time students. As a contrast to Rajasthan, about 71% of learners reported that they had passed the last class attended in school, distributed almost equally between the two systems. This is also reflected in their enrolment as a higher percentage of learners in AP are enrolled in Stream 1 as compared to those in Rajasthan. Male

learners, for both NIOS and SOS, were largely never-married (73.27% and 80.72% respectively) while female learners were predominantly married (49% and 53% respectively).

3.2 Accessibility and Feasibility Features in the ODL Processes: Intended v/s Actual Practices

a. Pre-Admission Stage:

Intended Practices: The most widespread mode of pre-admission information disseminated is through newspaper advertisements in national dailies, followed by radio and television. At the state level, NIOS/SOS officials are expected to conduct meetings with state-level education officials, local Body members and target hard-to-reach areas. Another mode is through the respective websites, which provides all relevant information. AIs recognised and accredited by NIOS and SOS for course-delivery, are one of the most important sources of information for admission. They play an important role in creating awareness in their vicinity, assist prospective learners in filling out forms and fulfill other formalities regarding admissions, act as a channel between the learner and ODL system with respect to submission of forms and assistance in online application.

Actual Practices: NIOS expects the AIs to organise awareness campaigns wherein they only print advertisements in the national dailies in various languages. This is also reflected in our survey as only 4.5% of NIOS learners in AP and 6.7% of learners in Rajasthan reported this as their source of information. About 1% of learners in AP and Rajasthan reported that they had obtained information about SOS from newspapers. Data from learner-interviews reveal that majority of them learnt about ODL courses from their previous schools/teachers and friends who had previously enrolled. Many also reported to have got information from coaching centers, agents[4], school teachers of AIs and Computer-Centre operators. Given that both NIOS and RSOS have their own websites, the percentage of learners who accessed information from the internet is negligible. The assumption that all learners have equal access and skills to use the internet does not hold true in this case.

b. Admission Stage:

Intended Practices: NIOS offers academic courses in four streams: (i) Stream I is for those who are appearing for 10^{th} and 12^{th} for the first time; (ii) Stream II is for those who either dropped out before appearing for Board examination or were unsuccessful in completing the class; (iii) Stream III is for failures/drop-outs who enroll for on-demand exam[5] for class 10^{th}; (iv) Stream IV is for failures/drop-outs who enroll for on-demand exam for class 12^{th}. Both RSOS and APSOS offer courses for class 10 and 12, similar to Streams I and II of NIOS. Hence, learners have the flexibility of enrolling in any one of the streams, based on their status and requirement. The survey covered a larger number of learners enrolled in Stream II, maybe due to the purposive nature of the sampling.

Admissions, for both NIOS and SOS, are undertaken round-the-year. Learners also have the Transfer of Credits option for subjects where they had achieved the minimum required marks in other Board of Education. Through this flexibility, it is ensured that learners do not discontinue secondary education due to inability to obtain minimum required marks in any subject(s). A wide range of subjects are available for selection, without conventional categorisation into Science, Commerce and Social Science streams at the senior secondary level. Learners also have the option of credit accumulation over a span of five years for the subjects opted with ODL system. Both offline and online forms are available for submission. Prospectus of the course, along with all details such as offline form, fees, examinations, subjects, processes to be, recognition of Open School by various Councils/Universities for higher education. Both NIOS and SOS charge very low fees, inclusive of the reading materials and extend fee-concessions to reserved/disadvantaged categories. Minimum age for application in secondary and senior secondary is specified, based on the age-appropriateness in conventional schools, but no maximum age has been specified for enrolling, making the system accessible by over-aged learners.

Actual Practices: Majority of the ODL learners covered in the study pointed out that the prospectus was easily available to them. However, more NIOS learners in Rajasthan (64.71%) reported that the prospectus was easily available than RSOS (27.33%) learners. In AP the figures were 96.11% and 98.62% for NIOS and APSOS respectively. Since NIOS learners are more urban-centric, this could result in better access to prospectus from Regional offices. The role of agents and coaching institutions in making available the prospectus cannot be discounted. It is evident that a large number of learners are dependent on the AI and coaching centres/agents for their online registrations. The use of NIOS website emerges as a weaker source (4% in AP and 30% Rajasthan for NIOS). None of the APSOS learners reported using their website while only 9% of learners reported the same for

RSOS. The survey also tried to estimate whether learners have any doubts and how they got them clarified. A majority of them indicated that they had questions about course structure and credibility of the ODL system. They got it clarified primarily through AI functionaries. The role of NIOS-SOS official in addressing doubts of the learners emerges as a weak area. Only 10% of the learners interviewed in Rajasthan had filled out forms on their own but in AP, about 50% had filled on their own, with some help from friends and others. Majority of learners were assisted by AI officials and by coaching centres, agents and private school teachers to fill forms and complete the admission process. Since online submission of application form entails computer proficiency and skills, many learners pointed out that they are dependent on others for filling up the admission forms. This also meant that learners were often not sure of what subjects they were opting for till the NIOS materials were received or till examinations approached (FGD, 2015). The most popular courses remain those with practical aspects (e.g. Drawing, Data Entry) and hence easier to score marks. Relatively easy coursework and flexibility attract learners to the ODL system. Another factor is the guarantee given by AIs that learners will pass the examination as a means to attract learners to their institution in order to save a year/compensate for day-time work.

Learners utilise the flexibility option of enrolling in their mother-tongue across both states as well as ODL systems. Subject-choice flexibility is also exercised as Home Science is more popular among learners in Rajasthan while Pure Science subjects are more popular among learners in AP. However, many learners, in both states, indicated that subject-selection was also dependent upon the AI offering those subjects. Despite another person filling out the form and choosing subjects, subjects with a practical component is more popular in both states. This could be due to ease in obtaining marks during practical examinations. Both NIOS and SOS maintain low fees for admission and examinations. Data from the survey indicated that learners in NIOS had an average expenditure of INR 6,332 in AP and INR 5,153 in Rajasthan. They also reported expenditure on private tuitions for academic support, books, transport and stationary as part of their overall education expenditure. NIOS learners in Rajasthan reported higher tuition fees as compared to those in AP. This indicates that possibly, AIs are charging some amount as tuition fees to register learners. With respect to SOS, a lower average expenditure was reported for RSOS (INR 3,119) as compared to APSOS (INR 5,512). Learners in APSOS spent higher amounts on additional expenditures like transport, stationary and private tuitions as compared to those in RSOS.

c. Academic Support:

Intended Practices: NIOS has developed its content and coursework based on the Central Board of Secondary Education to ensure equivalency. Both APSOS and RSOS utilise NIOS content and coursework. Materials have been designed with a self-learning perspective, such that learners need-not require external assistance in understanding a topic/concept. Both ODL systems have a provision for academic support through their AIs. Contact classes are expected to be held during holidays/weekends. NIOS has planned for a minimum of 30 contact classes per subject for each year. RSOS plans the classes during the Christmas/Winter break (15 days) and APSOS plans to conduct 30 classes per subject between November and March for each academic year. NIOS is fast moving towards a technology-oriented system, with availability of various modes of audio-video academic support (Internet Radio, CDs etc), dedicated toll-free number for query and free Android application for accessing admission forms, e-books and other information. Tutor Marked Assignments (TMAs) are a tool developed by NIOS to help learners to know their progress and attainment level and inculcate regular study habits. Learners had to submit at least one TMA per subject as these were assigned 20% weightage (2015-16 onwards).

Actual Practices: In both states, contact classes for NIOS were not conducted as AIs reported that NIOS had not transferred any funds for conducting the same. In Rajasthan, 75% of learners (NIOS and RSOS) were unaware of contact classes being held. Among those who were aware and had attended contact classes, mentioned that they had attended it during weekend/holiday and it was beneficial for their learning despite the fact that these classes were conducted through reading of materials. While the idea of providing support to learners through contact classes is innovative the question is whether this system is functioning to the optimal level. In contrast to NIOS and RSOS, contact classes for APSOS are being organised regularly as learners were interviewed during the contact classes itself. A large majority of learners indicated that they had not used the different modes for accessing academic support. In Rajasthan, only 23% of learners had accessed the NIOS website wherein only 16.7% of learners had accessed the RSOS website for information. In AP, about 80% of the learners (NIOS and SOS) were unaware of any other additional sources of academic support. Out of those who were aware, majority of NIOS learners accessed the NIOS website while APSOS learners used the local television programme broadcast. The lack of accessibility to internet and lack of information about the various support modes and programmes is clearly evident among the ODL

learners. Majority NIOS and SOS learners had accessed the websites primarily to access information regarding course structure, examination dates and details of examination centre. With respect to the TMAs, there is no uniformity in the submission across AIs in Rajasthan wherein APSOS learners had submitted at least one assignment per subject. None of the NIOS AIs reported more than a single tutor assigned to ODL classes. None of these tutors had undergone special training for conducting ODL classes, participated in NIOS activities related to paper-setting or evaluations. This is also reflective of the gaps within the monitoring of the AI, which in turn results in lack of any academic support extended by them.

d. Examinations:

Intended Practices: ODL system in India is examination-centric with a strict, detailed and rigourous examination process in place with a view to ensure credibility and equivalence compared to other National / State level Boards. All three institutions (NIOS/RSOS/APSOS) conduct two public examinations in a year, the schedule for which is uploaded on their respective websites. NIOS also conducts weekly on-demand examinations (pre-decided schedule) in their Regional Centres for learners from Stream III and IV. Learners from I and II can also opt for on-demand examinations after their first appearance in the public examinations. This flexibility, especially for those living close to Regional Centers, ensures that learners can write examinations as and when they are ready, instead of waiting for six-monthly public examinations. Learners can opt to write examinations for any number of subjects they are prepared for. They have been extended a flexibility of completing the course in five years or nine attempts for each subject. Learners are assigned examination centres close to their AI and can answer in their local language itself.

Actual Practices: A large number of learners in the urban areas opted for on-demand examination, flexibility offered by NIOS. Most learners interviewed had been informed about the examinations on time however NIOS learners had to travel longer distances, in both states, to reach their examination centers in comparison to SOS. This could be due to the rural and deeper penetration of SOS in both states. None of the learners interviewed reported any malpractices during examinations but informal discussions with AI officials hinted at insubstantial monitoring, primarily due to lack of human manpower, on behalf of the institution. Learners indicated that agents, who helped them enroll, had guaranteed passing in examination, is also an indication of some level of malpractice to fulfill this "guarantee". Learners in both states felt that five years were adequate for completion of the course. However, analysis of raw NIOS data for the period 2008-13 depict that the probability of completion for all social categories is highest in the first year and declines sharply over the next four years (APSOS, 2015).

4. So, how 'open' ODL system in India really is?

The ODL system in India is envisioned as 'open' for learners with in-built flexibilities, especially for those from disadvantaged sections. Based on the sample survey, a binary logit model was estimated for each state, controlling for sector, religion, sex, marital status, age, employment and economic status (based on a composite wealth index), utilising the equation: $Yi = \alpha + \beta jXij + \mathcal{E}i$; where, Y = whether a learner is enrolled in NIOS and SOS, X = vector of socio-demographic, economic, and $\mathcal{E}$ = error variable. This model depicted the probable socio-demographic profile of any learner enrolled in either system. Based on this analysis, it can be stated that in Rajasthan, SOS learners are more likely to be rural, lower in economic status, female, employed and older as compared to NIOS learners. Based on the regression, learners who are older, females, employed, married, belonging to rural sector and majority religion are more likely to be enrolled in RSOS as compared to NIOS. In AP, SOS learners are more likely to be female, married, belonging to the minority religion but younger than NIOS learners in the state. Data constraint did not allow us to control for social categories and parental educational background at this stage.

There seems to be wide deviations from the intended practices for NIOS across both states. Awareness is urban-centric, academic support is not extended through contact classes, examinations are held on-schedule but monitoring is questionable. Presence of agents for enrolment (either in connection with AI or independent) has increased the out-of-pocket education expenditure for the ODL learner, taken away some of the choice and flexibility that they system provides but it has also contributed to the increased awareness and enrolment. A fast-paced move towards digitization of all processes has also alienated the priority target groups from the system. SOS, in both states, on the other hand, managed enrolment of priority target groups to a greater extent, primarily due to its local connect. APSOS system has fewer deviations from the intended practices than RSOS, which is also reflected in the nature of learners who are enrolled in it. Such divergence between intended and actual practices further disadvantages those who are already educationally disadvantaged.

ODL in India has emerged as an 'easy to pass' system for many though not for all, opted by learners when they have failed/dropped out or want to concentrate on entrance examinations. Although diverse kinds of learners opt for ODL, this group is the largest in number. The open and flexible nature of the ODL system encouraged learners to choose this, but not necessarily to use this flexibility to enhance their learning but more for earning a certificate. The system, especially NIOS, has also evolved as 'open' to alternative practices (e.g. presence of agents) that act as a necessary evil for the system -- while they help learners maneuver the complex, technology-driven processes, it also implies high expenditure and escape from academic rigour. While the fundamental philosophy of ODL to be able to give an option to a rigid, stressful and homogenous system of regular schooling remains important and relevant, in practice, it is turning out to be just an easy route to gain certification.

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[1] Institutions that have been recognized by NIOS/SOS for academic support

[2] CBPS had collaborated with Institute of Development Studies (IDS), Jaipur for undertaking the study in Rajasthan.

[3] State of Andhra Pradesh was bifurcated in 2014. However, for this paper, we are considering undivided Andhra Pradesh for analysis.

[4] Individuals who are linked to various schools/coaching institutions who help learners enroll on payment

[5] On-demand exam is a mode of examination conducted by NIOS wherein the learner can appear for examinations anytime of the year, based on the pre-decided exam-schedule. These are conducted only in Regional Centers currently.