

SCHOOLING FOR EDUCATION OR MERE CERTIFICATION: EXAMINING THE EXPERIENCES OF OPEN AND DISTANCE LEARNING AT SECONDARY LEVEL IN INDIA

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Abstract

In India, Open and Distance Learning (ODL) for secondary and higher secondary level is mainly provided by the National Institute of Open Schooling (NIOS). The results from a telephonic survey of 1000 learners who were enrolled with NIOS and completed secondary and higher secondary education during 2008-2012 in selected Indian states showed that two different kinds of learners join NIOS at these two stages; the secondary stage seems has a bigger representation of lower socio-economic strata. Flexibility offered by the ODL stream was the major reason for enrolling with NIOS. Male learners used the flexibility to pursue the course and continue their income-generating activity, whereas women used it to fulfil their care and domestic responsibilities. This raises the question whether ODL is contributing towards girls' education or to further strengthening isolation of girls from labour force participation.

Second, 65 percent mentioned that NIOS helped them in looking for better jobs, widening the job search, more stable (permanent) and secure (government) jobs. However, the majority of those in employment were at lower level administrative /support jobs. In addition, most of the self-employed (63%) did not find NIOS certificates much useful. This implied that it was the certificate and not necessarily the knowledge or skills developed through the course that really mattered. This became apparent even when one examined the way those who were in employment articulated 'certification' as the main contribution of NIOS. This leads to the wider question of whether ODL is a suitable mode for schooling at secondary and senior secondary levels or not.

Third, the analysis of NIOS student data for five years (2008-2013) reveals that the representation of males from upper caste groups from urban and peri-urban areas is relatively higher. High dependence on technology and lack of an institutional mediation (either in the form of school or an NGO) also act as barriers for those from disadvantaged socio-economic backgrounds and remote locations. A survey of currently enrolled students in two Indian states showed that the use of unscrupulous middlemen is high leading to high out-of-pocket expenses. This raises issues about the inclusive nature and equitable outcomes of ODL.

Using these analyses, this paper examines these experiences to critically examine the question whether Open and Distance approach can be an effective alternative for inclusive secondary schooling in India that leads to better education, or skill development, which enables labour mobility, or just a mere certification process.

Keywords: certification, labour market mobility, learning, open and distance learning, secondary education.

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1.0 Introduction

Schooling of any form has twin objectives of imparting learning and certification. The usual mode is that schooling leads to certification based on assessment of learning gained through schooling. Both learning and certification are important from the perspective of employment and work-life. While certification has always been important for both entry and upward mobility in labour markets, it is also increasingly being used for screening (Dore, 1976; Dore 1980) and is also becoming important for accessing other resources such as financial services and instruments (D'Mello and Sahay, 2008; Upadhyaya and Vasavi, 2006; and Kim et al, 2006). The use of Open and Distance Learning (ODL) mode in education has been varied. In addition to its use to complement the teaching learning processes for children enrolled in regular schools and to offer a variety of courses at the university level, a number of E9 countries¹ have used this mode for teacher education courses, adult literacy programmes and schooling programmes for out of school children at various levels – basic, junior secondary and senior secondary (UNESCO, 2001). When used independently and not as a complement to those already enrolled in some educational institution, where the focus is on strengthening the learning processes by use of diverse modes, this becomes an alternative form of schooling with the intension of fulfilling the twin objectives of imparting learning and certification. India has the world's largest system of ODL based education at senior and senior secondary levels of schooling. Although not large as a proportion of total enrolment at respective levels, the numbers enrolled are high and the intent of using this mode to reach the unreached makes it a significant policy intervention in the area of education and work.² This paper examines two important questions: (i) whether the present system in India is fulfilling the objective of imparting both learning and certification at senior and senior secondary levels to individuals facing diverse disadvantages (social, economic, locational) and (ii) whether it is enabling them in their work endeavours.

ODL based secondary and senior secondary education is available through two sources in India. The National Institute of Open Schooling (NIOS), formerly known as National Open School (NOS) started by the Government of India in 1989 as an autonomous body by the Ministry of Human Resource Development (MHRD) aims 'to provide open and distance learning to school dropouts and students from disadvantaged sections of society'.³ The NIOS operates in most states of India through regional offices located usually in state headquarters. It has also facilitated many states to set up State Open Schools (SOS) but the NIOS remains the largest and most important institution both in terms of its reach and leadership. Most SOSs receive guidance and support from the NIOS in the areas of courseware, delivery and examinations.

¹E9 Countries include Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan. These countries represent more than two-thirds of the world's illiterate and over half of the world's out-of-school population. The E9 forum is a forum for these countries to discuss their experiences, exchange best practices and monitor progress on achieving Education for All (EFA) (see: <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-all/coordination-mechanisms/e-9-initiative/>)

²Although in terms of proportion, ODL covers only about two percent of the total enrolment at these levels, the reach is high in terms of absolute numbers with nearly one million learners enrolled at present.

³www.nios.ac.in

The paper is based on a research that we at Centre for Budget and Policy Studies (CBPS) have been conducting for the last three years on various aspects of ODL based secondary and senior secondary education in India.⁴ The paper uses the analysis of (i) raw student data of NIOS for the period 2008-2013, covering the entire country (referred to as NIOS Student Raw Data), (ii) data from a telephonic survey of close to 1000 NIOS certified learners who completed secondary or/and senior secondary education during 2008-2012 through ODL in selected Indian states; this being a subset of the NIOS student data from four states - Delhi, Rajasthan and Andhra Pradesh-AP⁵ (referred to as NIOS Tracer Survey Data), (iii) data from survey of nearly 2000 currently enrolled students studying in either NIOS or SOS in two states - Rajasthan and Andhra, in 2015-16 (referred to as Currently Enrolled Learner Survey Data), and (iv) Focus Group Discussions-FGDs and Consultation Workshops with diverse stakeholders including employers and Non-Governmental Organisations in Andhra, Gujarat, Rajasthan and Karnataka. While NIOS provides both academic and vocational education, the present paper is limited to the analysis of data for the academic streams. The share of enrolment for the academic streams was nearly 95% for the NIOS during 2008-13. The SOS model varies from state to state but it does not provide vocational education in any state.

2.0 Current Occupational Status of NIOS Certified Secondary and Senior Secondary Graduates⁶

The current occupational position of NIOS graduates shows different patterns for secondary and senior secondary graduates: a little more than 52 per cent of secondary graduates were employed/self-employed as against 43 per cent of senior secondary graduates. Similarly, nearly 38 percent of senior secondary graduates were students as against about 28 per cent of secondary graduates (Table 1). This implies that the NIOS learners are coming from two different pools for secondary and senior secondary courses; students who complete their secondary from NIOS are not necessarily the ones who are enrolling with NIOS again for their senior secondary courses. They are perhaps coming from different socio-economic strata after completing their secondary certification from other examination boards with varying motivations. What reinforces the conjecture that they are coming from a different

⁴ The authors thank MacArthur Foundation and Commonwealth of Learning for funding the research study on Open and Distance Learning at secondary level in India. The authors thank the inputs provided by the Advisory Committee members. The authors acknowledge and thank the support provided by the officials at National Institute of Open School and State Open School, India.

⁵ Andhra Pradesh was subsequently divided into two states: Andhra and Telangana. However, the reference data comes from united AP.

⁶ The main method used was a telephonic survey conducted in 2015. The NIOS raw student data for the period 2008-12 formed the database from where a list was prepared for those who had completed the course in the sample states. This formed the dataset from which respondents were randomly identified and interviewed. Postal survey was tried and abandoned because of the poor response rate. The anonymity of the interviewer in a telephonic survey makes it difficult to establish a strong interviewer- interviewee relationship, which also meant that the questionnaires had to be as brief as possible (not more than 10-15 minutes). The overall response rate for the telephonic survey was nearly 17 per cent; a total of 5648 calls were made out of which 954 could be interviewed. The success rate was higher for male (19%) as compared to that for women (13%). This section is based on the conference paper prepared for PCF8 titled "Tracing the Education and Employment Status of Open School Graduates in India" (see <http://dspace.col.org/handle/11599/2629>)

pool, and probably a different socio-economic class is that the proportion of those who had attended private schools before enrolling in the NIOS was much higher for those who got their senior secondary certificates from NIOS (42%) as compared to those who completed their secondary certificates from NIOS (28%). We get back to this trend and its implications at a later stage.

Table 1: Present Occupation Status of the Respondent* (2015)

Present Occupational Status	Those who completed Secondary level	Those who completed Senior Secondary	Total
Student	96 (27.51)	227 (37.52)	323 (33.86)
Employed	140 (40.11)	192 (31.74)	332 (34.80)
Self-Employed	43 (12.32)	71 (11.74)	114 (11.95)
Unemployed	66 (18.91)	115 (19.01)	181 (18.97)
Total	345 (100.00)	605 (100.00)	950 (100.00)

*who completed secondary and senior secondary between 2008-2012. Percentages are given in brackets.
Source: NIOS Tracer Survey Data, 2015

A sharp gender disparity exists in the present occupational status among NIOS graduates (not shown in the Table): while only about 11 per cent of male respondents were unemployed nearly 40 per cent of female respondents reported being unemployed, this being true for both secondary and senior secondary pass-outs. However, it is interesting to note that when it came to continuing further education, women were at par with men, the proportion of students being a little higher for female as compared to male respondents in both the categories of secondary and senior secondary graduates.

The respondents in this tracer survey were asked whether education through NIOS using ODL mode added value to their pursuit or not, and those who said yes were also asked to explain how it did so. The analysis of the results shows that the proportion of those who saw value in NIOS education was the highest for those who were pursuing further education (Table 2). More than 80 per cent of the respondents who were currently students mentioned that NIOS had facilitated their further education by helping them to get the certificates needed for admission to the desired courses at the next level. Seventy-one per cent of female respondents and 80 per cent of male respondents who were currently students were pursuing undergraduate courses from various universities. This implies that both girls and boys are using the senior secondary course in NIOS for gaining access to higher education institutions. Those who found it useful also mentioned that it helped in the choice of subjects at higher level as they had the requisite grades in the NIOS certificates. Does it mean that a section of students is opting for NIOS, especially at senior secondary level, just as an easy route for getting high grades and the required certification to be able to go through the screening process at university level? We explore this question further a little later with the help of other datasets.

It is important to add here that the access to higher education is also enabled by the fact that the NIOS graduates do not face any institutional barrier in terms of eligibility criteria or any other constraint in accessing higher education through universities and institutions of repute. A perusal of prospectus and admission rules of 126 universities located in Delhi, Andhra Pradesh, Rajasthan and Karnataka showed that the eligibility criteria in these universities did not create any disadvantage for NIOS certified learners. In fact, about one fourth of these 126 universities had clearly mentioned acceptance of NIOS certificates and no one mentioned non-recognition of NIOS or SOS certificate. Sometimes, the NIOS learners could be older than regular school goers and the presence upper age limit for admission could have created a barrier but it did not exist anywhere. The NIOS itself has taken steps to enable recognition of its certificate and the prospectus lists a large number of universities as well as engineering and medical education institutions that recognise the NIOS certification.

Table 2: Distribution on whether NIOS education added value to respondents by present occupation

Did NIOS education Add Value	Completed Secondary in NIOS		Completed Senior Secondary in NIOS		Total (Completed either Secondary or Senior Secondary in NIOS)		
	Male	Female	Male	Female	Male	Female	Total
Currently Students							
Yes	83.33	86.96	86.62	72.00	85.71	75.51	82.54
No	16.67	13.04	13.38	28.00	14.29	24.49	17.46
Currently Employed							
Yes	63.41	40.00	67.14	66.67	65.77	57.14	64.80
No	36.59	60.00	32.86	33.33	34.23	42.86	35.20
Currently Self Employed							
Yes	3.45	4.00	4.15	1.67	3.86	2.73	3.70
No	65.52	60.00	58.54	83.33	61.43	72.73	62.96
Currently Unemployed							
Yes	90.91	88.46	92.31	86.67	91.80	87.32	89.39
No	9.09	11.54	7.69	13.33	8.20	12.68	10.61

Note: Non-responses are not reported here, therefore summation of values reported in yes and no rows for each current activity may not equal to 100 percent.

Source: NIOS Tracer Survey Data, 2015

Among those who were currently employed, more than one third did not find it useful in either entering or gaining upward mobility in labour market. However, the rest found it useful, as the certification helped in either widening their search for jobs or in enabling their search more stable

(i.e., 'permanent') and secure (i.e., 'government') jobs; it also helped in upward mobility by making it possible to fulfil the eligibility criteria for promotions and 'jobs with higher salary'. This is significant as it came from the respondents who were mainly engaged in low-paying, low-status jobs and had there been no such flexible opportunity available, majority of these people would not have been able to attain the mobility that they have using NIOS. However, the references in terms of value addition were almost entirely limited to certification and eligibility criteria rather than to knowledge and skills gained through this education. Contrary to the observations above, more than 60 percent of respondents in the self-employed category reported that that NIOS education did not add any value. Since those who are self-employed do not really need certification for either entry or upward mobility, this response can perhaps be interpreted as a comment on the education or skill component being not useful / relevant. This gets reinforced by the fact that those self-employed who found it useful did so primarily on account of the certificate helping them access loans more easily.

But then the question arises why do about 90 percent of those who were unemployed, largely married women, found it useful. There could be a gender related explanation to this: female respondents even if unemployed found it useful because the certification would have added to their status and perhaps mattered in the marriage market, as highlighted by Chanana (1996), where upwardly mobile educated men prefer educated wives and future mothers for their children. Gender becomes important when one examines the reason for opting the ODL mode: while exploring better employment opportunities does not figure as an important reason in general, a much greater percentage of male respondents who completed their secondary form NIOS cite this reason as compared to female respondents.

More than one third of respondents cited 'flexibility' as the main reason for choosing NIOS. However, there is a need to further examine the gender-impact of such a flexibility being offered. The analysis of their responses indicates that while the men respondents used flexibility as being helpful in combining their work with studies, the women respondents found it easy to combine studies with their care responsibilities. A small internal study by NIOS tracing cases of 29 past learners (NIOS, 2011) had reported similar findings. 'This can be interpreted as both facilitating gender parity and widening the gender gap at the same time; while the fact that these women who would have no opportunity to study if there were no ODL options available is a welcome step, the fact that it reinforces their care role and confinement in the home space makes this intervention questionable for its gender-equality-enabling impact'(Jha et al, forthcoming).

It is important to add here that the responses in this telephonic survey was also skewed in favour of men. Female respondents constituted 28 per cent of total respondents as against 32 percent of the total NIOS certified learners for 2008-13 period, which was the dataset from which the sample was selected. The reason for poorer response rate for females also raises critical gender-related questions: many female learners whose telephone numbers featured in the list that we used to access

them did not have direct access to telephones and the male family members who received the calls did not always allow them to talk, this being especially true for married women.

The results of the tracer survey make one surmise that most of the NIOS students opt for NIOS as an easy route to certification, required for various purposes. This could be to fulfil the eligibility criteria of various kinds: labour market entry, widening the choice for either horizontal or vertical mobility in labour market, access to higher education institutions and enhancing value for the ‘marriage market’. Further analysis based on other related datasets examine this surmise in greater depth.

3.0 Who is opting for ODL at secondary and senior secondary levels

The total enrolment in NIOS increased significantly from 313,922 in 2008 to 429,720 in 2013. An analysis of enrolment in NIOS for 2008-13 shows that urban male from the so called middle castes and classes are relatively over-represented whereas girls are under-represented; so are those from the officially acknowledged educationally backward groups in the country: Scheduled Castes (SC), and Scheduled Tribes (ST). Although the rural representation is increasing as evidenced by a much higher growth rate in comparison to that in urban areas, girls, SC, ST and even Other Backward Castes (OBC), who are considered better than SCs and STs but worse than the upper caste groups, continue to be underrepresented in both rural and urban areas. It is obvious from the fact that learners belonging to SC, ST and OBC constitute respectively only around 13, 9 and 10 percent of the NIOS enrolment although their combined share in population is more than 50 percent (Table 3).

Table 3: Percent Distribution of Enrolment in NIOS (2008-2013) by Caste and Location

Caste (Social group)	Secondary			Senior Secondary		
	Rural	Urban	Total	Rural	Urban	Total
General	58.55	73.72	67.53	63.48	78.12	72.77
Scheduled Caste	13.05	12.97	13.00	11.68	10.89	11.18
Scheduled Tribe	14.48	5.50	9.16	10.74	3.94	6.43
Other Backward Caste	13.50	7.18	9.76	13.65	6.58	9.16
Others	0.42	0.63	0.55	0.44	0.47	0.46
Total (Numbers and percentage in brackets)	5,39,297 (40.79)	7,82,996 (59.21)	13,22,293 (100)	5,20,759 (36.51)	9,05,395 (63.49)	14,26,154 (100)

Source: NIOS Student Raw Data

This distribution for NIOS enrolment is counter intuitive if one looks at it from the perspective of setting up the NIOS for reaching the unreached. It is clear that those who are recognised as educationally backward are less represented as compared to those who perhaps have

access to regular schooling as well. The question then is whether it is being used mainly by only those who have access to regular schooling but because of circumstances or choice want to use the flexibility offered by NIOS, and not by those who have had constraints accessing regular schools for socio-economic-locational reasons. The answer is not an unambiguous yes but somewhat largely yes; as evidenced by the following analysis. One of the main flexible features of the NIOS system is that it provides five-year time period to complete the course. 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. An estimation of the probability of completion over the course of the stipulated five years using the ordinal logistic model⁷ indicates that an average learner faces a higher probability of non-completion, of about 45 percent, even with the five-year flexibility. The probability of successful completion is highest in the first year of enrolment (about 25 percent). After which, the probability decreases to 17 percent at the first one and half year of enrolment, and falls alarmingly to 7 percent in the second year of enrolment, and then to 2 percent thereafter. In other words, the majority of those who are likely to complete the course do so in the first two years, implying that the use of the five-year time frame has not been extremely low.

Table 4: Distribution of learners by stream (2008-2013)

Stream	Year of Enrolment						Total
	2008	2009	2010	2011	2012	2013	
Secondary							
Stream 1 (%)	94.51	89.96	91.16	90.45	87.90	84.50	89.50
Stream 2 and 3(%)	5.49	10.04	8.84	9.55	12.10	15.50	10.50
Total (Numbers)	1,75,500	2,13,525	2,22,336	2,34,317	2,39,163	2,37,458	13,22,299
Senior Secondary							
Stream 1(%)	1.76	0.99	7.85	9.49	1.66	1.56	4.00
Stream 2 and 4(%)	98.24	99.01	92.15	90.51	98.34	98.44	96.00
Total (Numbers)	1,67,082	2,05,407	2,35,719	2,59,217	2,71,625	2,87,108	14,26,158

Source: NIOS Student Raw Data

The NIOS offers academic courses in four streams: (i) Stream I is for those who are appearing for 10th and 12th 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 enrol for on-demand examⁱ for class 10th; (iv) Stream IV is for failures/drop-outs who enrol for on-demand exam for class 12th. Admissions are undertaken round-the-year.

⁷We make use of a multinomial logit regression to estimate the probability of completion where the dependent variable representing completion at varying time period since enrolment (say 1 year, 1.5 year and so on) and no completion. The independent variables include sex, age, caste, mother and father education, income level, whether the student transferred from another board or not, state and time fixed effects.

Learners also have the Transfer of Credits option for subjects where they had achieved the minimum required marks in other Board of Education. It is clear that stream III and IV coupled with transfer of credit systems are largely to serve those who were studying elsewhere and using the NIOS to complete the level which they were otherwise not able to; in other words, for certification. Stream I and II, especially stream I, is for those who are least likely to have studied elsewhere. The distribution across these streams is very different for the two levels: while the proportion of stream I is overwhelmingly high at secondary level, the opposite is true for the senior secondary level (Table 4). Higher representation of streams II and IV at senior secondary level indicate towards the higher concentration of those who are accessing NIOS for reasons other than any educational/social/economic disadvantage.

At this stage, it is important to go back to the results of the Tracer Study discussed earlier. The social profile of respondents there differed slightly from the profile of the original dataset of NIOS learners: 72 per cent men in the sample as against 68 per cent in the NIOS dataset, only 55 per cent UCH in the sample as against more than 76 per cent in the NIOS dataset, which in turn means that the disadvantaged groups (SC, STs and Muslims) are overrepresented in the tracer sample. Apart from the fact that the results need to be interpreted with caution in terms of generalising those for all NIOS certified learners, it also implies that those NIOS learners who enrol directly rather than through agents / institutions are over represented in the sample. This means that in reality if the sample had represented the universe better, the proportion of those students who were using it just as a convenient and easy option for certification would have been larger.

This analysis raises more questions than it answers: If majority of those who complete the course have access to regular school and do so in two years, why are they choosing NIOS? Is it simply the choice for an easy route to certification or the answer is more complex? The analysis of primary survey data as well as the in-depth discussions and case studies reveal that the answer is not so simple yet what clearly emerges is that NIOS is presently catering to a variety of learners, coming from diverse but mainly more privileged background, and hence would need to alter its approach if it has to fulfil the objective of reaching the unreached.

4.0 Delivery Mechanisms, Processes and Barriers: Education and Learning take a Back Seat

The primary research undertaken in three states: Andhra, Gujarat and Rajasthan using multiple methods revealed that (i) there are major variations between the ODL model as conceived and detailed out in the NIOS prospectus and the actual practices, and this leads to distortions in the delivery, (ii) heavy reliance on technology and internet based processes tend to act as barriers for potential learners from disadvantaged sections in general and those from rural areas in particular, and (iii) those coming from disadvantaged sections or with low social positioning, need intermediaries to negotiate the process of schooling, especially if they are also young in age. What clearly emerges is

that the ODL system as practiced through NIOS is not fully responsive to the needs of the potential learners at secondary and senior secondary stage and therefore ends up serving as an alternative, that too an 'easy to get a certificate' alternative, to regular school system.

The NIOS model works through accredited institutions (AI), mainly schools and non-government organisations (NGOs), which are the closest contact points for the learners. The individual learner is expected to register online and chose the AI based on her/his location and availability of seats in respective AIs.⁸This implies that it is a demand based model where potential learners are (i) expected to know about the opportunity with all the requisite details, (ii) motivated enough to avail the services, and (iii) well versed with technology to negotiate the internet-based process. It was evident from the field based study that all these three implicit assumptions, the existence of information about the NIOS, high motivation and access to technology, are a little unreal for potential learners coming from disadvantaged groups in rural areas. Below, we discuss these one by one.

The NIOS prints advertisements in newspapers but access to newspapers is limited not only in rural but also in urban areas. This became evident from the results of the field based Current Student Sample Survey in two states: Andhra and Rajasthan: only 4.5% of NIOS learners in AP and 6.7% of learners in Rajasthan reported this as their source of information. The percentage of learners who accessed information from the internet was negligible in both the states; a majority of them learnt about ODL courses from their previous schools/teachers and friends who had already enrolled. Many also reported to have got information from school teachers of AIs and Computer-Centre operators – there is obviously a bias towards urban areas and towards those who are already enrolled in schools. Moreover, given their positioning within the household and the society, girls and women have little access to newspaper even if it is available within the household or the community, and therefore is not the most appropriate source to provide information.

Adolescent girls in rural areas seldom decide for themselves. The absence of agency plays a role not only for girls but also for boys to some extent, especially coming from lower socio-economic strata. Pressures to earn early for themselves and for the family is often very high on boys. Further, more often than not, these girls would have gone through irregular schooling with poor reading and writing skills, and also often with illiterate or barely literate parents, and therefore to expect them to negotiate technology mediated process is indeed impractical. Therefore, apart from the fact that such a system leaves a large number of prospective learners outside the net, the survey results showed that it also forces those enrol to use an intermediary for assistance in accessing information and mediating the technology based processes. The field-work clearly showed that currently enrolled learners use agents frequently but do not necessarily accept it openly and therefore it is even difficult to realise this

⁸Although a recent provision for offline filling of forms has been made, the form then has to be submitted to an AI, which in turn is supposed to fill it online. Most AIs in reality do not accept forms. Also, In reality, a number of respondents in the survey of currently enrolled students reported that they are often not allocated AI of their choice.

using just an analysis of their survey. But use of multiple methods enable a better understanding of such parallel processes.

An important feature of the NIOS Raw Student Data, which was also used to access the past learners for their telephonic interviews for the Tracer Study, was that a large number of students had the same telephone numbers. This, as our work in the states made it clear, was due to the presence of middlemen, known as agents, in most cases. The requirement for access to technology goes beyond the issue of access to a computer and internet, which itself is of course a constraint for many; it also involves the of familiarity with and ability to negotiate the entire registration process, which is even a bigger constraint than mere access. Therefore, the role of an intermediary, often a fee-charging agent, becomes very critical. The lack of computer proficiency and skills forced many learners who were interviewed to be dependent on others for filling up the admission forms. This also meant that in some cases learners were not even sure of what subjects they were opting for till the NIOS materials were received or till examinations approached. The choice of subject in any case is largely determined by the ability to easily secure higher grades, i.e., subjects that have practicum components (e.g. Drawing, Data Entry) were considered 'safe' as the 'agents' often 'guaranteed' that the learner would indeed secure a particular grade/percentage marks. In some cases, the AI instructors or others associated with the NIOS were also identified as the middlemen by learners, especially in Rajasthan(FGD, 2015).

In addition to individual 'agent', another important user at senior secondary stage is the 'coaching centre'; the institutions that admit students after classes 10th for being coached for professional undergraduate engineering and medical colleges/institutions. The entry to these colleges is highly competitive due to extremely high demand as compared to the seats available and the high value attached to such degrees by the middle class. These coaching centres are known for preparing students to 'crack' these multiple-choice tests through practice and simulations, and are generally considered high-pressure periods for students. Estimated to be nearly 6.5 billion-dollar industry and growing at a rate of 15 per cent, it is being referred to as one of the fastest growing industry in India.⁹Certain cities such as Kota in Rajasthan have emerged as hubs for such institutions and several cases of suicides by young men and women have been reported due to the pressure of such courses, exacerbated further by high expectations form the family and society. Since successful completion of senior secondary level is the eligibility for entrance to engineering and medicine, such students need to find an institution that allows them to take the class 12th final examination without attending the regular classes. While a good number of such students enrol in regular schools and pay for not attending classes, NIOS has also emerged as an important and more affordable, and also ethical option, as here they do not have to absent themselves from any class being held. Recently, NIOS has opened an office in Kota perhaps to further tap this potential.

⁹www.thehindubusinessline.com/news/education/in...coaching-is.../article3606716.ece

The examinations are a very important part of the NIOS delivery system. It conducts two public examinations in a year, the schedule for which is uploaded on the website. 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 located in state capitals, 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. None of the learners interviewed reported any malpractices during examinations but informal discussions with AI officials hinted at weak monitoring, citing lack of adequate manpower as the reason. Learners indicated that agents, who helped them enrol, had guaranteed passing in examination. A deeper investigation and discussions with agents, learners and others clearly revealed the presence of varying scale of malpractices in the examination process. This included use of copying in the examinations and also at times using proxies, someone else writing the examination paper instead of that particular learner. However, it is difficult to find direct and clear evidence for such practices. But presence of large number of advertisement by agents guaranteeing completion of the level without any effort from the learners' side coupled with high commission paid by some of the respondents is also indicative of the presence of such practices (Figure 1).

Figure 1: Advertisement Pamphlets collected during the Fieldwork



The fees are nominal and small for admission and examinations. But data from the Current Student Survey indicated that out of expenditure for learners in NIOS was much more than this; more

importantly, a good number of learners reported paying high amounts to agents, and therefore the variability in the out of pocket was very high. This meant that though the average expenditure of learners surveyed was only INR 6,332 in AP and INR 5,153 in Rajasthan, the highest amount paid was much higher than this (Table 5). This is especially true in Rajasthan. This is despite the fact that large majority of students were hesitant in sharing the exact amount that they paid to these agents and who these agents were in the survey.

Table 5: Out-of-Pocket Expenditure of respondents learning at NIOS and SOS (In INR, as reported by the respondent)

Item of expenditure	Rajasthan (INR)		Andhra Pradesh (INR)	
	Average	Max.	Average	Max.
Tuition	1695.67	75000	890.53	3200
Examination	1406.47	80000	1030.95	12000
Other	1236.29	74000	1145.65	7700
Books	142.30	6600	273.16	5000
Stationary	127.83	1900	554.46	5000
Uniform	17.19	3000	11.00	4000
Transport	192.36	7000	2022.70	6000
Private tuition	17.65	6000	47.40	5000
Total (NIOS)	5505.81	80000	6332.25	15500
Total (SOS)	3217.17	10500	5512.95	16200

Source: Currently Enrolled Learners Survey. 2016

The need for intermediary is also necessitated by the poor functioning of the designated academic processes. The NIOS has developed its content and coursework based on the Central Board of Secondary Education to ensure equivalency. Materials have been designed with a self-learning perspective, such that learners need not require external assistance in understanding a topic/concept. The system has 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. NIOS has also developed a number of Internet and Radio based materials including CDs to support this process of learning. It has a 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 are expected to submit at least one TMA per subject as these were assigned 20% weightage. (Minni et al, 2016).

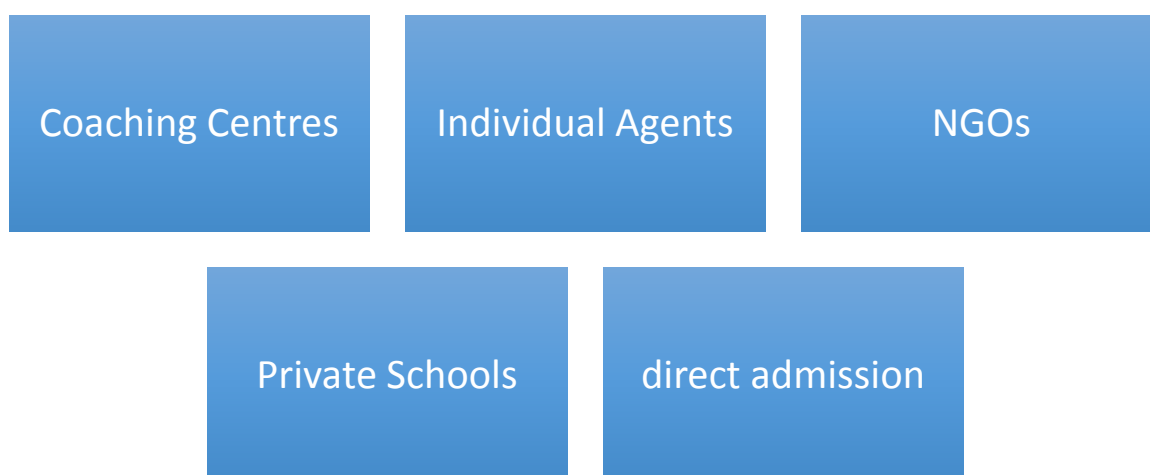
However, in reality, contact classes for NIOS were not conducted as AIs reported that NIOS had not transferred any funds for conducting the same. In Rajasthan, 75% of respondents (currently students) were unaware of contact classes being held. Among those who were aware and had attended

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. A small percentage of learners who had accessed the websites did so primarily to access information regarding course structure, examination dates and details of examination centre, and not to access learning resources. None of the NIOS AIs reported more than the mandatory single tutor assigned to ODL classes, which is mandatory. The results from the interviews of tutors showed that they had not received any special training for conducting ODL classes, paper-setting or evaluations.

NIOS has also accredited a number of Non-Governmental Organisations (NGOs) working with girls or children coming from marginalised sections either in rural areas or urban locations. A number of such organisations run their own programmes for educating such children using funding support from elsewhere and access NIOS for certification. In a consultation workshop held with representatives of a number of such organisations in Gujarat, it became evident that they too do not use NIOS study materials directly – in most cases, they have developed their own materials which they use for teaching while refer to NIOS materials to prepare the learners for taking the examination.

What emerges in the end that NIOS, and that is perhaps true for the SOSs as well, is being used by learners mostly through mediators. In addition to coaching centres, individual agents and NGOs who act as mediators in different contexts and motivations that have been discussed earlier, a number of private schools, especially in major cities, also encourage some students to go for NIOS and facilitate the process of admission and examinations. We came across two kinds of schools that go for NIOS: experimental schools that use innovative pedagogies and find the regular boards too rigid for its students and therefore opt for NIOS as a certification board for its flexibility in terms of choice and combination of subjects, as also in the examination system and processes. Here too, the use of NIOS materials is rare for teaching. The second kind of schools are certain ‘elite’ schools that boast of very high percentages attained by their students and do not want to make a dent by taking the risk of allowing any student take public examinations at secondary or senior secondary levels through regular boards (Figure 2). They encourage or at times compel such students to register in NIOS, and since the certification carries equal weights in terms of admission to higher education institutions, it does not make much difference to the student.

Figure 2: Routes to Access NIOS Secondary and Senior Secondary Courses



It is impossible to know the distribution of NIOS learners across these five classifications, as there is no such data available. NIOS itself does not collect any such record; almost all of them are officially ‘direct admissions’ for NIOS as the process requires each one to register directly. However, it is helpful to unravel the patterns of demand for the service to be able to fully understand the constraints faced by current and potential learners and provide pointers for both the NIOS as an institution and for the school education policy at the larger level. The conclusions bring together these inferences and provides pointers for potential institutional and policy reforms.

5.0 Conclusions

NIOS has been successful in reaching out to a large number of learners, especially in urban areas. It has a number of flexible features that are important for an ‘open’ system as against the regular schooling system in India which is rigid in terms of courses and examination processes. However, this paper, based on analysis of a variety of data and information using multiple methods indicate towards a few important inferences and raises critical issues.

One important conclusion that emerges is that though designed as a system that would be accessed by individual learners themselves, it is largely being used through intermediaries in various forms and shapes: agents, schools, NGOS, coaching institutions and so on. Two important factors are responsible for the emergence and importance of intermediaries: Lack of access to complete and correct information and high dependence on technology. While this appears to be true even for urban learners, as majority of the current learners interviewed were from urban/peri urban areas, this could be particularly a major reason for lower enrolment from rural areas, especially those coming from disadvantaged sections.

The same seems to be true for technology; access to technology in terms of using mobile phones for conversation is very different from the use of technology for the formal purposes of admission, fee payment, choosing subjects and registering for examinations. The access to internet is also fairly limited for socio-economic disadvantaged sections and the ease of using it is a bigger constraint. Therefore, the agent becomes an important and perhaps an unavoidable requirement- someone who provides information and helps them negotiate the technology - is important and useful. The process can be made less exploitative if this need is recognised and appropriate measures are made for providing full information and support is provided for negotiating the technology or the dependence on technology is reduced. It is especially significant if the objective of reaching the unreached - girls, SCs and STs in rural areas – has to be made true. The intended target of disadvantaged groups from rural areas do not fully possess either the motivation or skill-levels that is required for a self-study based technology-oriented ODL system of education. It is important to recognise this mismatch. Therefore, when the need for certification arises for some reasons, the intermediary becomes the facilitator in absence of designated and responsive system, that is easily accessible; technology based system is too intimidating for people with little agency and control over their own lives.

However, the use of individual agents goes beyond providing the information and negotiating the technology. The high prevalence of ‘guarantees to pass’ and evidences of manipulating the examination process points towards not only the corruption but also the fact that this is seen as an easy route to certification. Although not entirely true, as the users are varied and access NIOS for diverse reasons and purposes, what unites them that barring perhaps exceptions, most use it for certification alone. The motivations vary but in the end hardly anyone uses it for learning per se; experimental schools and NGOs choose it against the rigid mainstream while students in coaching centres use it to get away from the rigours of regular schooling. Each one of these uses their own materials and processes, and NIOS study materials remain largely unused.

There is nothing wrong in developing a flexible system for certification at these crucial levels that play a major role in labour market processes, it is rather a need given the fact that mainstream systems are rigid and unresponsive to the needs of several kinds including those who face socio-economic and locational barriers, and those who do not face such barriers but prefer a less stressful system. Nevertheless, the process of certification has to be rigorous and reliable, otherwise it can merely act as a fulfilment of screening requirements and not reflect the level of learning.

The representation of learners from rural and disadvantaged sections is higher for secondary level, as evidenced by the survey results. Also, the schools are NGOs are more important intermediaries at that level. Agents also seem to play a more important role there. It is likely that a good number of those who were continuing their further education after completing secondary through NIOS are those who come through the school or NGO route using NIOS as a certifying Board while following their own teaching-learning processes. A good proportion of those who are either

unemployed, employed or self-employed are likely to have used agents, and these are those who are probably not going through any process of teaching-learning, and want to get the certification by circumventing the examination process. In recent past, the enrolment has gone up in states where the secondary certification has been made compulsory for local government (panchayat) elections. NIOS faces the challenge of recognising this fact that it is being resorted to for certification and therefore focus on reforming the processes of teaching-learning, i.e., contact classes, and assessment to make its certificates more credible reflection of desired learning levels at respective stages.

At senior secondary level, the high prevalence of streams II and IV reflect that it is almost entirely being used by those who have had access to regular schooling earlier; it is operating as a flexible option to various kinds of learners – hopeful engineers and doctors to those who are unable to cope with the stress of rigid regular schooling systems. This is bound to happen in a democratic society: different kinds of institutions and individuals would make use of the available avenues but the challenge lies in making the process credible on one hand, and making it more accessible to those who are otherwise unable to access regular schooling in any form. It is important to add that a number of respondents in the tracer survey mentioned being able to return to their studies that was obstructed due to a health or family reasons. To that extent, NIOS is serving its intended purpose but the policy intent of reaching the unreached remains largely unfulfilled. There is a need to either accept this limitation and reform the processes to make it into a credible source of certification alone, or have multiple models where one could offer only certification while the other can be a combination of genuine teaching-learning leading to certification; this calls for reforming the entire process of admission to contact classes to response mechanisms to examinations.

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ⁱ 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.