Council for Social Development

Digital Literacy Training to Non-IT Literate Citizens

Impact Assessment of the National Digital Literacy Mission

CSC
e-Governance Services India Limited

Ministry of Electronics & Information Technology
Government of India

Digital India
Power To Empower

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Foreword

The contemporary era of Information and Communication Technology (ICT) has been instrumental in transforming human lives in ways that one cannot possibly deny or overlook. The Government of India launched the 'Digital India' campaign for transforming India into a digitally empowered society and economy. One of the goals of this campaign is to empower those who are IT-illiterate so that they are competent enough to use IT and related applications for effectively participating in the democratic processes and enhancing their livelihood opportunities. In this context, the Ministry of Electronics and Information Technology has initiated the National Digital Literacy Mission (NDLM) as a means of realising the vision of 'Digital India'.

The NDLM initiative was launched in 2014 with the aim of providing digital literacy to 52.5 lakh Indians, including one in every eligible household in selected blocks of every State and Union Territory (UT) of the country. In the first phase, 10 lakh citizens have been trained under NDLM while the remaining 42.5 lakh people will be trained in the second phase. The mission was implemented by CSC e-Governance Services Limited, the Special Purpose Vehicle (SPV) of the Ministry of Electronics and Information Technology, as the Programme Management Unit (PMU) of NDLM, along with the support of various partners and the active collaboration of the State governments and UT administrations.

The Council for Social Development (CSD) was chosen as the agency for assessing the impact of the training programme. The Impact assessment study undertaken by CSD was expected to highlight the overall outcome of the scheme and verify the extent to which the intended objectives have been met in making one person in every family digitally literate. Another objective was to make recommendations and offer pragmatic suggestions for helping improve the programme in its subsequent phases. CSD has done a commendable job in implementing the mandate of the study by identifying several good practices across states in India. This comprehensive National Report submitted by CSD provides a comprehensive assessment of the study and delineates its findings to facilitate more effective policy-making in addition to suggesting measures to the PMU for achieving further improvement in the future phases.

Dr. Dinesh Tyagi
CEO
CSC e-Governance Services India Ltd

Acknowledgements

The Council for Social Development (CSD) is pleased to submit this report, which highlights the key issues of concern in the NDLM. We believe that this report will be helpful in effecting further improvement in the programme. We also hope that this report will contribute in enhancing the achievements in the coming phases of the NDLM and help it attain the vision of digital India.

We extend our heartfelt gratitude to CSC e-Governance Services India Ltd. for assigning the study: Impact Assessment of the National Digital Literacy Mission (NDLM) to the Council. We are particularly grateful to Mr. Rishikesh Patankar and Ms. Surbhi Sharma of CSC e-Governance Services India Ltd. for providing valuable insights and suggestions throughout the duration of the assessment study.

Our sincere thanks are also due to Crux Management Services, Hyderabad, for successfully carrying out the telephonic interviews in various States/UTs across the country. In particular, CSD acknowledges the efforts of Ms. Hema Jain, CEO, and Ms. Siroja Mehta, Manager of Crux Management Solutions and their team for the timely completion of the telephonic interviews. We would also like to express our appreciation for the sample beneficiaries, training partners and trainers who spared their valuable time and effort for this study.

My personal thanks goes out to Professor Muchkund Dubey, President, CSD, who has always been a source of inspiration and moral support. Professor Ashok Pankaj, Director, CSD, offered immense support and valuable guidance for this study at every stage. I am also grateful to Professor R. Govinda, Distinguished Professor, CSD, for his insightful comments in designing the NDLM study.

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Special thanks are also due to Ms. Anupma Mehta for meticulously editing the report and Ms. Sushama Aich & Khemchandra Sahu, Macro Graphics Pvt.Ltd., for the design and layout of the report.

My colleagues, including both the academic and administrative staff of CSD, also deserve recognition for their contribution and the support in various ways. In particular, I would like to express my gratitude to Ms. Sheela Sabu, Administrative Officer of CSD, for making earnest efforts to help the research team achieve its goals. In addition, the project team extends its thanks to everyone, though not specifically mentioned here, who offered endless hours of help and support during the project.

Last but not the least, I am indebted to Dr. Susmita Mitra, Ms. Ramandeep Kaur and Mr. Gitesh Sinha, for their dedication, commitment and tireless efforts to ensure the successful completion of the report. The usual disclaimers apply.

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Acronyms

ACC	Appreciation of Computer Concepts
AIIMS	All India Institute of Medical Sciences
A & N Island	Andaman & Nicobar Island
BPL	Below Poverty Line
CEO	Chief Executive Officer
CSC	CSC-e governance Services India Limited
CSD	Council for Social Development
CSR	Corporate Social Responsibility
DEITY	Department of Electronics and Information Technology
FGD	Focus Group Discussion
ICT	Information and Communication Technology
IGNOU	Indira Gandhi National Open University
IRCTC	Indian Railway Catering and Tourism Corporation Limited
IT	Information Technology
ITI	Industrial Training Institute
LANs	Local Area Network
Ltd.	Limited
MEITY	Ministry of Electronics and Information Technology
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MHRD	Ministry of Human Resource Development
NDLM	National Digital Literacy Mission
NGOs	Non-Governmental Organisations
NIELIT	National Institute of Electronics and Information Technology
No.	Number
NPIT	National Policy on Information and Technology
NR	No Response
NSS	National Sample Survey
NSDC	National Skill Development Corporation
OBC	Other Backward Caste
PC	Personnel Computer

PMU	Programme Management Unit
PPP	Public Private Partnership
Rs.	Rupees
RSETI	Rural Self Employment Training Institute
SC	Scheduled Caste
Sl. No	Serial Number
SPV	Special Purpose Vehicle
ST	Scheduled Tribe
TLM	Teaching and Learning Material
UPS	Uninterrupted Power Supply
UTs	Union Territories
VLEs	Village Level Entrepreneurs
WANs	Wide Area Networks
WDR	World Development Report

Executive Summary

BACKGROUND

As part of the Digital India Campaign, the National Digital Literacy Mission (NDLM) was implemented by CSC e-Governance Services India Ltd. to provide training in Information Technology (IT) to 10 lakh persons in every eligible household in each State/Union Territory (UT). The objective of this training was to enable the beneficiaries to use IT and IT-related applications for effective participation in democratic processes and enhancement of their livelihoods. With the completion of the first phase of this training, the Council for Social Development (CSD) was assigned the task of evaluating the impact of the training programme and of recommending improvements, suggestions and best practices. A total of 27,557 beneficiaries were interviewed from 22 states and 4 UTs. Following are the key findings of the survey at the national level in accordance with the dimensions and indicators identified for this impact assessment study:

I. Beneficiary Coverage

This dimension includes the following indicators: NDLM target groups, trainees benefited per family, digital literacy status of the families, and the financial support offered to the trainees. The key findings with respect to this dimension are delineated below.

(i) NDLM Target Group

- *Gender:* A substantial proportion of the candidates trained were women (38 per cent), even though the male members were the major beneficiaries.
- *Age:* The age-wise classification of the beneficiaries reveals that the youngest lot of respondents in the age group of 14 to 25 years, that is, approximately 80 per cent of the total, is the chief beneficiaries of the NDLM training.
- *Social Group:* At the national level, a majority of the respondents belonged to the OBC category (comprising 44 per cent of the total), followed by those from the general category (27 per cent of the total). The proportions of beneficiaries from the SC and ST categories were 20 per cent and 7 per cent, respectively.
- *BPL/Non-BPL:* In terms of reaching out to the BPL card-holders, the NDLM programme effectively achieved its target as 64 per cent of the candidates trained were found to belong to that category whereas the non-BPL card-holders accounted for 28 per cent of the trained population. While 5 per cent of the respondents did not have ration cards, 3 per cent did not respond to the question pertaining to possession of a ration card.

(ii) Digital Literacy Status of Trainee's Family

- The all-India picture reveals that 74.3 per cent of the trained beneficiaries belong to families having one IT-literate member, and almost 12 states out of the 22 surveyed have crossed the national average.

(iii) Trainee Benefitted Per Family

- At the national level, 76.3 per cent of the respondents stated that only one member from each of families attended the programme, whereas 24 per cent reported that more than one family member availed of this training.

(iv) Financial Support to Beneficiaries

- The training was provided free of cost to different candidates irrespective of their caste status though some of the training centres charged a fee from the different categories of candidates. An assessment of the national scenario reveals that more than 85 per cent of the respondents from both the Scheduled Caste (SC)/Scheduled Tribe (ST) communities and the General/ Other Backward Caste (OBC) categories received free training. Only a small proportion of the sample beneficiaries from these communities were paying the prescribed fee of Rs.125, while some of the beneficiaries paid more than the prescribed amount. While all candidates belonging to the OBC and General categories were required to pay the stipulated fee of Rs.125, it was found that only 9.04 per cent of the total OBC and General candidates reported paying the prescribed fee.
- Similarly, the training was provided free of cost to 68 per cent and 31 per cent of the BPL and non-BPL trainees, respectively. However, excess fee was also charged from the candidates in some cases.

II. Training Component

The dimension pertaining to the training component covers the following aspects: the outreach mechanism of NDLM, regularity of training and form of Teaching Learning Material (TLM) used in the NDLM.

(i) Outreach Mechanism of NDLM

- An examination of the national picture shows that 39.22 per cent of the candidates learnt about the training through friends and thereafter registered for the programme. Similarly, 26.44 per cent of the trainees stated that they came to know about the programme through advertisements released by training centres in the form of hoardings and banners in public places, and distribution of pamphlets, among other forms of publicity. Another 15.35 per cent of the respondents affirmed that they had obtained information on the programme from various schools.

(ii) Regularity of NDLM Training

- At the national level, more than 90 per cent of the respondents stated that the NDLM training used to take place on a regular basis, and only 6.39 per cent of the respondents complained of the irregularity of the training.

(iii) Form of Teaching Learning Material (TLM) of NDLM

- On the whole, 65.24 per cent of the students stated that the course materials were in the form of videos. Some of them reported that though the videos were interesting to watch, it was difficult for them to retain what was depicted in the videos for long and the latter were not available when revision of the material was required. About 49.40 per cent of the respondents stated that books were provided by the training centres. Further, 35.42 per cent of the respondents stated that they had access to e-books and 37.82 per cent reported that photocopies of the course material were made available by the training centre.

III. Training Infrastructure and Classroom Processes

(i) Facilities in the Training Centre

- The respondents were questioned on the availability and condition of basic facilities in the training centre such as computers,

Internet connection in the centre, power back-up in case of electricity failure and the condition of other equipment such as web cameras, printers and scanners. In almost all the states/UTs, more than 90 per cent of the respondents affirmed the good quality of the available equipment.

(ii) NDLM Lessons

- In some of the states/UTs such as Daman & Diu, Bihar, Madhya Pradesh, Chandigarh and Haryana, more than 80 per cent of the students reported having received lessons on computer application, the use of smartphones, tablets, Internet and accessing of government services.

(iii) Knowledge of Trainers

- Almost 100 per cent of the respondents in many of the states averred that the trainers had appreciable knowledge of the course content. This finding is further emphasised by the fact that the national average for the extensive knowledge of the trainers on the course content is as high as 87 per cent.

(iv) Teaching Methods

- The teaching methods consisted of theory, practical and audio-visual classes. About 46 per cent of the trainees reported going through mixed methods of teaching, while 38 per cent stated that they primarily had theory classes and 10 per cent said that they had practical classes. The training was imparted in English, Hindi, the local language, and sometimes a mix of English and Hindi, or a mix of English and the local language.

(v) Examination and Certification

- Overall, 63 per cent of the students stated that they did not face any difficulty in giving the exam while 37 per cent of the respondents claimed to have faced difficulties. On further enquiry with regard to the difficulties faced, the trainees highlighted technical reasons such as slow portals, too many hits by students at the same time, and poor Internet connection, among others.

IV. Training Outcome

The indicators concerning this dimension such as the purpose of digital device usage, day-to-day application, and the overall outcome of training, are discussed below.

(i) Purpose of Digital Device

- On the whole, 63.03 per cent of the respondents who underwent the training stated that they were able to use the digital devices to check and send emails. About 60 per cent of the students in the surveyed states/UTs said that they were using digital devices for browsing various websites. Nearly 30 per cent of the trainees also reported using the Internet for accessing government and other services like booking of railway tickets.

(ii) Day-to-day Application of the Digital Device

- At the national level, 51.9 per cent of the respondents stated that they were able to use the digital devices after the training for day-to-day applications like doing office work, school/college work, or using it for general purposes like sending mails, and checking Facebook, among other applications. However, on the whole, 48 per cent of candidates reported irregular usage due to the unavailability of digital devices at home.

(iii) Overall Benefit of the NDLM Training

- Out of the total number of candidates trained, 63.54 per cent perceived of an improvement in their knowledge after the training. About 50 per cent of the respondents asserted an enhancement of their confidence levels after undergoing the IT literacy training. A few of them also found the training to be useful in securing

new jobs or promotions in existing jobs, and in augmenting their incomes. Interestingly, about one-fourth of them also used their learning for imparting training to other people.

RECOMMENDATIONS

Overall, the national performance in most of the indicators was good. However, gaps were identified in certain areas and it may be pointed out that corrective measures pertaining to those aspects would ensure better implementation during the next phase of the NDLM. Following are the key recommendations and suggestions made on the various components:

I. Beneficiary Coverage

- In some states, more than one member from the targeted family was trained. In a number of states, non-eligible families were also trained. Hence, there is need for more prudent and accurate selection of beneficiaries to ensure adequate coverage of the target population.
- The educational backgrounds of the trainees varied. Accordingly, it is recommended that different training modules should be designed for beneficiaries with different levels of education.
- In a number of states, elderly people in the age group of 60-plus years also showed an interest in the digital training for their day-to-day usage. The eligibility criteria should thus be modified to include the elderly population, but the training modules should be different for them.
- A number of states adopted innovative methods of targeting the Below the Poverty Line (BPL)/SC/ST and women beneficiaries. Elected representatives of the panchayats in the villages were also involved in identifying eligible beneficiaries. The best practices adopted in some of the states can, therefore, be replicated in the other states.
- There is need for strict monitoring of the implementation of programme for SC/ST and BPL candidates, especially in terms of the fee waiver for various groups. Further, proper mechanisms should be developed to ensure that the training partners and training centres do not charge extra fees from the candidates.
- The outreach measures in a few states included advertising in local newspapers and radios, campaigns in slum areas, meetings with panchayat leaders and working population groups (for example, farmers' clubs, teachers, and MGNREGA workers), and the use of mobile vans. These practices should also be adopted by the other states.

II. Training Component

- The training modules should be designed as per the needs of the beneficiaries belonging to diverse age and educational groups. Accordingly, different modules of training need to be developed.

III. Training Infrastructure and Classroom Processes

- There is need for proper scrutiny of training partners and centres before the commencement of the training programme in order to ensure that the training centres are equipped with proper computers, Internet connectivity and other requisite infrastructure.
- Due to the prevalence of server and technical problems such as crowding on the portal, the examination was not conducted on time in some states. This highlights the need for enhancing the range of the bandwidth to prevent hanging of the portal due to multiple hits at a time. The examination can thus be conducted for different zones in different time slots.
- The examination should be conducted immediately after the training. There should be a minimum time gap between

the closure of training and conduction of the examination.

- The process of issuing of certificates should be expedited.

IV. Training Outcome

- Some of the students were not able to use the digital devices due to lack of access to the equipments, especially after completion of their training. As a result, they also tend to forget their lessons. Hence, the PMU may instruct the training centres to allow the students to use the facilities at the training centres for limited purposes, even after completion of the training period.
- Students, who have taken the training, use the digital devices mostly for applications like WhatsApp, Facebook and playing of games. The training should also orient them for using it for other purposes. Emphasis should also be laid on the usage of digital devices for accessing government services and other utility-based services such as booking of railway tickets, and applying for Pan Cards, passports, and Aadhaar Cards, among other services.

1 Introduction

BACKGROUND

With the present era being characterised by a digital revolution, Information and Communication Technology (ICT) has been heralding a remarkable change in the way the world functions while also improving service delivery, increasing job and learning opportunities, and enhancing knowledge and skills. However, as stated by the World Development Report on 'Digital Dividends', for digital technologies to confer their full benefit on society, it is vital to close the digital divide by increasing the access of technology to all (World Bank, 2016) and also by enhancing the capability of both the Government and the citizens to optimally utilise digital technologies. In particular, generating greater awareness among citizens regarding the use of digital technology and building a corresponding human capital on its usage will not only bridge the digital divide, but also contribute to greater social progress of the country (Kapoor and Mathur, 2016).

In accordance with the endeavour to spread digital awareness, the National Digital Literacy Mission (NDLM) was implemented in 2014 by the then Department of Electronics and Information Technology (DEITY), which subsequently became the Ministry of Electronics and Information Technology (MEITY) in September 2016. The objective of NDLM was to impart training on Information Technology (IT) to 10 lakh persons in every eligible household in selected blocks in each state and Union Territory (UT), so as to offer beneficiaries greater livelihood opportunities and to enable them use IT and IT-related applications for effectively participating in the democratic process. The beneficiaries were selected from households wherein none of the members in the age group of 14 to 60 years was IT-literate.

CSC e-Governance Services India Limited, as the Special Purpose Vehicle (SPV) for this programme, is engaged in the implementation of NDLM, with the active collaboration of the respective state governments/UTs and other key partners.

While Phase 1 of NDLM has already been implemented, the second phase of the programme is expected to reach out to 42.5 lakh persons across the country. However, it is imperative to evaluate the success of the first phase and the targets achieved under it before the commencement of the second phase of the programme. This evaluation is also likely to throw up suggestions for dealing with the challenges emerging in the first phase, and to implement some of the good practices observed in it. In view of its history and prior experiences, the Council for Social Development (CSD) was assigned the responsibility of assessing the impact of the first phase of the training programme, to recommend improvements and propound best practices.

OBJECTIVE OF THE IMPACT ASSESSMENT STUDY

This Impact Assessment Study highlights the overall outcome of NDLM, that is, the IT Mass Literacy Training programme implemented

across the country in different states. The main objectives of this study are to:

- Examine the coverage of the targeted beneficiaries as per the criteria of selection adopted by the NDLM;
- Assess the training module and its compatibility with the objectives of the programme;
- Explore the availability and condition of training infrastructure provided by the training centres;
- Analyse the impact of the training outcome on the beneficiaries; and
- Suggest measures for improving implementation of the programme to guarantee its better outcomes.

METHODOLOGY

The study was based on the information and data supplied by CSC and the primary survey conducted in collaboration with the trainees, training partners and training centres of the programme. The step-by-step process, which entailed data collection, analysis and preparation of the report, has been elaborated below.

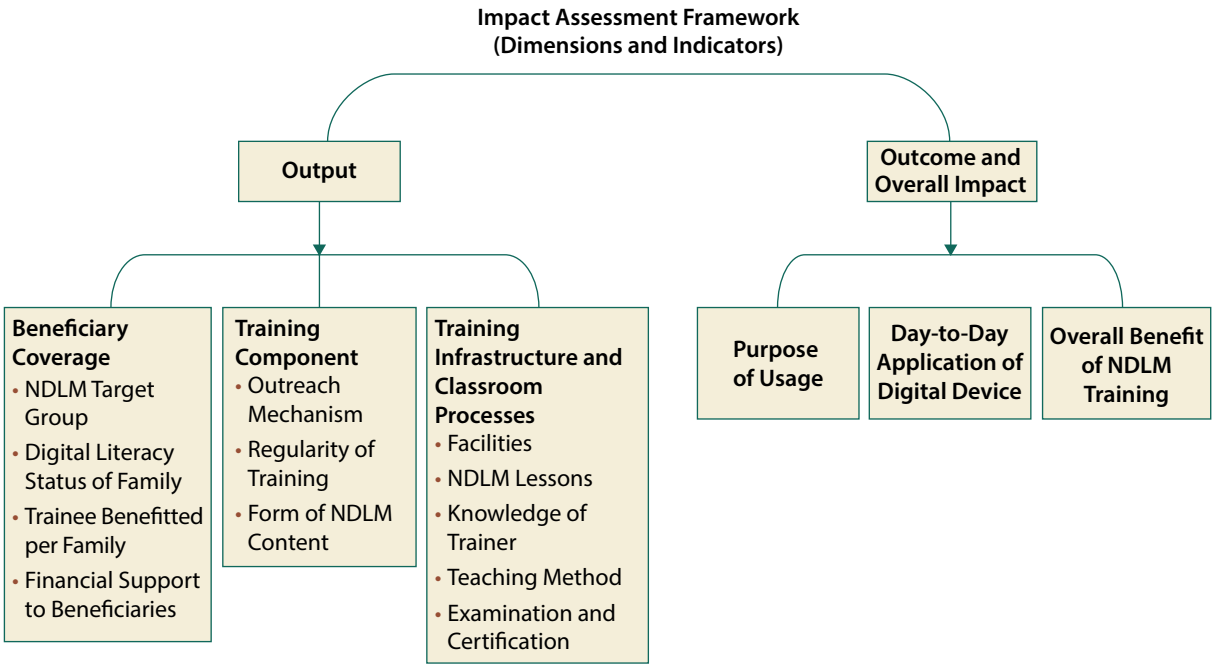
Impact Assessment Framework

An Impact Assessment Framework was developed to facilitate an effective impact analysis based on the review of the existing documents discussing the implementation of NDLM. The Impact Assessment Framework covered the relevant dimensions and indicators of the programme, as depicted in Figure 1.1.

Sampling and Sample Size

This study proposed a sample size of 30,000, which is equivalent to 3 per cent of the total population trained. The study adopted the same state-wise break-up that was applied by the Programme Management Unit (PMU) of NDLM for identifying the training targets in different states. Stratified random sampling was undertaken in all the states/UTs to examine whether adequate representation was given to various sub-groups of the target population. The survey was undertaken during the period April 2016 to July 2016, covering

FIGURE 1.1: IMPACT ASSESSMENT FRAMEWORK UNDER NDLM



Source: Prepared by authors.

approximately 10,000 samples each month, reaching a total of 27,557 by the end of three months. Interviews with the training partners and training centres across the identified states/UTs were held in July 2016.

The survey covers a total of 50 training partners and 50 training centres from various states/UTs. Although the total sample size of the intended target was 30,000 households, the programme could not achieve this target due to zero implementation in Lakshadweep Islands, and receipt of responses from an insignificant number of respondents in the states/UTs of Andaman and Nicobar Islands, Arunachal Pradesh, Assam, Dadra and Nagar Haveli, Goa, Meghalaya and Sikkim. The survey data of Andhra Pradesh also includes Telangana, wherein the trainee beneficiaries were selected from Andhra Pradesh, while the training partners were selected from Telangana. In this way, a total sample of 27,557 respondents was surveyed from 22 states and 4 UTs, the details of which are presented in Table 1.1.

TABLE 1.1: SAMPLE SIZE ACROSS STATES/UTs

Sl. No.	States	Sample
Category A (10 States)		
1.	Andhra Pradesh	2,000
2.	Bihar	2,000
3.	Gujarat	2,000
4.	Karnataka	2,000
5.	Madhya Pradesh	2,000
6.	Maharashtra	2,000
7.	Rajasthan	2,000
8.	Tamil Nadu	2,000
9.	Uttar Pradesh	2,000
10.	West Bengal	2,000
Category B (9 States/UTs)		
11.	Chhattisgarh	667
12.	Delhi	667
13.	Haryana	667
14.	Jammu & Kashmir	667
15.	Jharkhand	667
16.	Kerala	667
17.	Odisha	667
18.	Punjab	667
19.	Uttarakhand	667
Category C (7 States/UTs)		
20.	Chandigarh	222
21.	Daman & Diu	222
22.	Himachal Pradesh	222
23.	Manipur	222
24.	Nagaland	222
25.	Puducherry	222
26.	Tripura	222
	All India	**27,557**

Survey Method

In view of the constraints of budget and time, and the need to maintain high quality of the survey, telephonic interviews were conducted to elicit information on the training from the respondents. The training partners and training centres across the country were also part of the interview process.

Designing of Survey Instruments

The survey instrument and coding format for filling the data were designed on the basis of the Impact Assessment Framework. The Inverted Funnel technique was adopted for framing the structured questionnaire, wherein a set of close-ended questions were posed in the beginning, followed by a few open-ended questions. A field visit was also undertaken in Delhi to pilot test the survey instruments.

Pilot Test

A pilot study of the survey instruments was held to explore the adequacy and acceptability of the questionnaire. This pilot comprised a telephonic survey in the five states/UTs of Delhi, Haryana, Punjab, Tamil Nadu and West Bengal, for assessing the suitability of the questionnaire in the different states. The questionnaire developed was further fine-tuned on the basis of the results obtained after the pilot study.

Data for the NDLM Survey

The data set for the NDLM survey of various states was supplied to CSD by the CSC-SPV. The data set contained the basic details of the people trained under NDLM, including the name of the

candidate along with names of the parents, and the mobile numbers, Aadhaar number and email id of the candidate. The data set also provided details on the gender, religion, community affiliation and educational qualifications of the candidate. Before the initiation of the survey, the data set was subjected to several checks, as delineated in Table 1.2.

TABLE 1.2: CHECKLIST FOR DATA CLEANING

Duplicacy in telephone numbers	√
Invalid Numbers (numbers more or less than 10 digits)	√

Source: Prepared by the authors.

The data was thus cleaned up before commencement of the survey process. Hence, out of the total data set of 3,79,932 respondents that was supplied, 94,707 students were removed, due to inconsistencies. Table 1.3 presents a picture of the valid data set that was identified for the survey, after the data cleaning process.

TABLE 1.3: VALID DATA SET FOR NDLM SURVEY

Sl. No.	States	Total No. of Students	Total Invalid Nos.	Without Nos.	Students with Valid Mobile Nos.	Total Duplicate Nos.	Valid Data Set for the Survey
1.	Andhra Pradesh	18,023	21	0	18,002	7420	10,582
2.	Bihar	26,282	47	8	26,227	15,605	10,622
3.	Chandigarh	2086	6	2	2078	301	1777
4.	Chhattisgarh	8538	482	1	8055	1116	6939
5.	Daman & Diu	686	0	0	686	84	602
6.	Delhi	4999	26	4	4969	631	4338
7.	Gujarat	14,653	11	0	14,642	1923	12,719
8.	Haryana	13,476	10	7	13,459	3081	10,378
9.	Himachal Pradesh	3049	2	0	3047	308	2739
10.	Jammu & Kashmir	2231	0	0	2231	440	1791
11.	Jharkhand	1626	4	0	1622	268	1354
12.	Karnataka	5650	6	16	5628	1098	4530
13.	Kerala	3094	2	1	3091	711	2380
14.	Madhya Pradesh	44,216	85	11	44,120	13,201	30,919
15.	Maharashtra	9999	29	0	9970	2627	7343
16.	Manipur	1152	1	0	1151	168	983
17.	Nagaland	929	3	0	926	51	875
18.	Odisha	15,988	137	13	15,838	4912	10,926
19.	Puducherry	931	2	0	929	34	895
20.	Punjab	15,563	24	0	15,539	2104	13,435
21.	Rajasthan	49,129	79	4	49,046	16,283	32,763
22.	Tamil Nadu	9002	5	0	8997	629	8368
23.	Tripura	2946	2	0	2944	600	2344
24.	Uttar Pradesh	59,791	181	2	59,608	9561	50,047
25.	Uttarakhand	6143	3	0	6140	2606	3534
26.	West Bengal	59,750	175	17	59,558	7516	52,042
	All India	**3,79,932**	**1343**	**86**	**3,78,503**	**93,278**	**2,85,225**

Source: Computed by the authors.

Out of the 3,78,503 valid mobile numbers, 2,85,225 were considered for the survey as there was repetition of the same numbers several times against different names.

Data Analysis

In order to measure the performances of the states, a composite Digital Literacy Index was developed against the identified dimensions—beneficiary coverage, training component, training infrastructure, and classroom processes and training outcome. The aggregates of the individual dimensions were arrived at by giving equal weights and by normalising the values between 0 and 1. Thereafter data analysis was done by using advanced Excel, access and SPSS techniques. Statistical tools such as frequencies, and percentages were used to describe, summarise and interpret the findings of the study.

STRUCTURE OF THE REPORT

The report presents the findings with respect to the digital literacy training imparted to the non-IT literate citizens across the country. The report highlights the key issues and concerns pertaining to NDLM in the 22 states and 4 UTs covered under the study. The report is anticipated to offer valuable insight into the digital literacy efforts under NDLM and to contribute towards attaining the vision of digital India.

The report is organised into 7 chapters. Chapter 1, the introductory chapter, provides a brief outline of the Impact Assessment Study and the methodology adopted under the programme. It also lists the states/UTs selected for the study and discusses the methodology adopted for computing the digital literacy index.

Chapter 2 is a snapshot on the contribution that ICT can make in the development of the country and highlights the need for bridging the digital divide, by showcasing the NSS 2015 data on the ability of citizens to operate computers for different purposes. It also provides an overview of NDLM as implemented by the CSC-SPV.

Chapter 3 presents the findings of the survey against the dimension of 'beneficiary coverage', which verifies the extent to which the objectives of NDLM have been met. This entails a brief discussion on the demographic and social background of the beneficiaries of NDLM. In addition to the state-wise scenario relating to the beneficiaries covered, the other components of the programme discussed in this chapter include the beneficiary coverage per family, digital literacy status of the beneficiary's family, and the financial support offered to the beneficiaries.

Chapter 4 evaluates the training component and covers various aspects such as the outreach mechanism used by different states/UTs under NDLM training, while also revealing the perceptions of the trainees on the need for regularity of NDLM training and the form of the NDLM content and material.

Chapter 5 analyses the infrastructure and the classroom processes of the training centres, which is believed to be critical for imparting appropriate digital literacy training to the beneficiaries. For this purpose, the chapter scrutinises the basic and secondary facilities available at the training centre, viz. computers, Internet connection, printer, scanner, and power back-up, and classroom processes such as the language used for the training, knowledge of the trainer, the teaching methods adopted, and the examination and certification process following the training.

The impact of the NDLM training on the beneficiaries is expounded in Chapter 6, which also examines the effect that the training has had in the lives of the trainees in terms of enhancing their knowledge and skills in the usage of digital devices.

Chapter 7 concludes the study with an exploration of the impact of the NDLM intervention on the beneficiaries. It presents a cross-country scenario on the overall effect of the training and classifies the performance of the participating states in the 'good', 'moderate' and 'low' categories. It then goes on to identify the gaps in the design and implementation of the training programme and provides suggestions and recommendations for improving the programme in its future phases.

2

Bridging the Digital Divide: Imparting Digital Literacy Training to Non-IT-Literate Citizens

BACKGROUND

History has witnessed two industrial revolutions associated with general purpose technology, the first driven by steam and the second by electricity. The third revolution, namely the Information Technology (IT) revolution, driven by computers and networks, is unfolding now (UNDP, 2015). For more than three decades now, Information and Communication Technology (ICT) or IT has been instrumental in transforming human lives in ways that one cannot possibly deny or overlook. The history of IT dates back to the landmark invention of the moveable typewriting machine by Guttenberg. Thereafter, it meandered its way through other iconic creations, starting from the giant calculator to the Personal Computer (PC), finally making way for laptops, tablets and smart phones. A major qualitative and quantitative leap occurred when PCs were connected to one another via Local Area Networks (LANs), and later on via Wide Area Networks (WANs) in case of long distance machines. During the mid-1970s, a computer was considered to be an extremely complex device that could be operated only by trained professionals. However, with the passage of time, the scenario is changing and different sections of society now have access to various kinds of digital devices, though this access is still not universal.

The digital boom revolutionised the lives of people in the developed countries by empowering them with increased access to information, government authorities and other services, and the creation of better livelihood opportunities, among many other advantages. However, critics argue that the other side of the coin of the 'digital boom' is the 'digital divide', not only between the rich and the poor people, but also between the developed and developing nations.

For instance, Figure 2.1 highlights the various forms of uneven accesses ranging from macro to micro aspects.

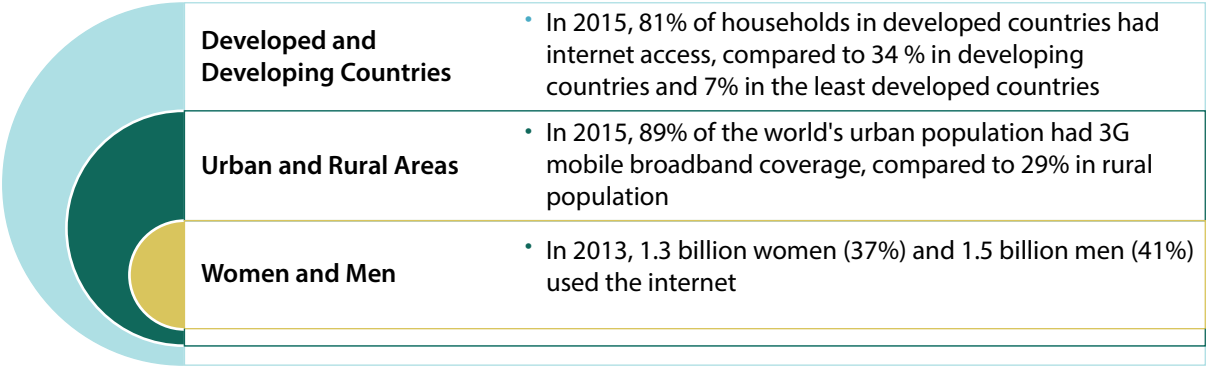
It is also argued that the digital divide is the outcome of not only the unavailability of IT services but also the lack of access to technology and the inability to use it effectively, resulting from a myriad economic, socio-political, institutional, as well as cultural context. However, IT can be the harbinger of development by facilitating the right

DIGITAL LITERACY

"Digital Literacy is the ability of individuals and communities to understand and use digital technologies for meaningful actions within life situations."

Source: www.ndlm.in

FIGURE 2.1: UNEVEN ACCESS TO THE DIGITAL REVOLUTION



Source: Prepared by the authors based on Human Development Report, 2015.

policies, and spreading digital literacy, which is necessary to universalise its benefits.

Digital literacy is one of the many ways of removing the so-called digital divide. It can help farmers stay updated on weather forecasts, and the latest fertilisers and farming techniques, while also enabling patients in remote areas to book their appointments with doctors online, instead of having to travel for long hours to book these appointments. Schoolteachers can also download educational materials and lesson plans for their students (Atkinson and Castro, 2008). In fact, there are a number of examples in India as well as other countries, where the digital revolution has actually contributed in bringing about a positive change in the life of the common man.

In Ethiopia, farmers use mobile phones to check coffee prices while their Saudi Arabian counterparts use wireless technologies to carefully distribute scarce irrigated water for wheat cultivation. In some villages in Bangladesh, female entrepreneurs use their mobile phones to provide paid services to their neighbours (UNDP, 2015).

The 1999 project—Computer Access for Farmers of Madhya Pradesh—addressed some of the major concerns of the farmers, and also acted as a social justice mechanism by handling local level grievances and administrative matters through

FIGURE 2.2: DIGITAL LITERACY AND FORMAL EDUCATION AS A CATALYST

Source: Prepared by the authors.

Internet connections. In 2001, the Gyandoot Soochnalaya scheme of the Dhar district of Madhya Pradesh aimed to build a low-cost rural Intranet facility by joining 20 village information kiosks. This enabled villagers in the district to access the Internet and share information, which helped in increasing the prices of the farmers' produce by 3–5 per cent, and saved them from having to pay commissions to middlemen. In 2008, computerised tea auctions and spot trading initiated by the Indian Tea Board allowed buyers to bid from anywhere in the world, with a view to ensuring more efficient services and fairer prices for the country's tea farmers. The online booking of railway tickets through the Indian Railway Catering and Tourism Corporation Limited (IRCTC) and online appointment at the All India Institute of Medical Sciences (AIIMS), now help save a lot of time and energy.

Thus, for people to realise the benefits of IT revolution, it is important to interlink digital literacy with the strong foundation of formal

TABLE 2.1: POPULATION (AGED 14 YEARS AND ABOVE) ABLE TO OPERATE A COMPUTER (%)

Gender	Age Group (in Years)							
	Rural				Urban			
	14-29	30-45	46-60	>60	14-29	30-45	46-60	>60
Male	22.70	6.40	2.20	0.60	53.60	30.90	20.90	10.60
Female	13.50	1.90	0.50	0.10	43.80	17.30	8.70	2.80
Persons	18.30	4.10	1.40	0.30	48.90	24.30	14.80	6.80

Source: NSS KI (Report No. 575(71/25.2) (2015), Key Indicators of Social Consumption in India: Education, Ministry of Statistics and Programme Implementation, Government of India.

education (Figure 2.2), which can enhance the capability of citizens to optimally utilise digital technologies.

Understanding the importance of digital technology, in recent years, a number of inclusion projects have been undertaken in different developing countries to bridge the digital gap. In 1994, a long-term community-based development project was initiated in the small town of Siyabuswa in South Africa, which provided supplementary tuition on Saturdays to secondary school learners. In 2001, telecentre projects were started in the city of Sao Paulo in Brazil and community telecentres were installed by government agencies (but operated by community leaders) to provide free Internet access and digital literacy courses (Madon, et al., 2009). The interventions on digital literacy in India have been discussed in the forthcoming section.

INDIA: THE DIGITAL DISCOURSE

India serves as a hub for providing technically qualified people to the IT sector worldwide. While continuing to be on the lower brackets in most United Nations (UN) developmental indicators, India has managed to maintain a more than respectable position in the world-wide race for technologies ever since IT became a popular economic development catchphrase. However, as observed by Kapoor and Mathur (2016), in spite of the appreciation received for providing IT services, India has been criticised for the huge digital divide being faced by the country. One of the ways of bridging digital divide is to make the citizens of the country competent by providing digital literacy and promoting awareness amidst the people on the usage of digital devices. This Impact Assessment Study of the NDLM being implemented by the Indian government is a step in that direction.

However, before going into the details of the programme, the need for developing such a programme as well as the various facets pertaining to digital literacy in the country have been highlighted through the following tables and figures based on the 2013-14 data from the National Sample Survey (NSS) (GoI, 2016). Table 2.1 delineates the current level of computer[1] skills among the Indian population, age-wise and gender-wise.

Table 2.1 clearly indicates the urgent need for a digital literacy programme in the country. It shows that as far as the first age bracket (14-29 years), comprising the student group and the job-seeking age group, and the next two age brackets (30-45 and 46-60) comprising working professionals, are concerned, not even half the persons of the job-seeking age group in urban areas are able to operate a computer. The rural scenario is even worse. Similarly, the number of females who are able to operate a computer is much lower than that of their male counterparts in every age group. Table 2.2 provides a comprehensive picture of the need for digital literacy in the country by showing both age-wise as well as gender-wise the percentage of persons who are able to operate computers, and to use them for different applications such as typing in the 'Word' application, or using the Internet for locating the desired information and sending mails. Table 2.2

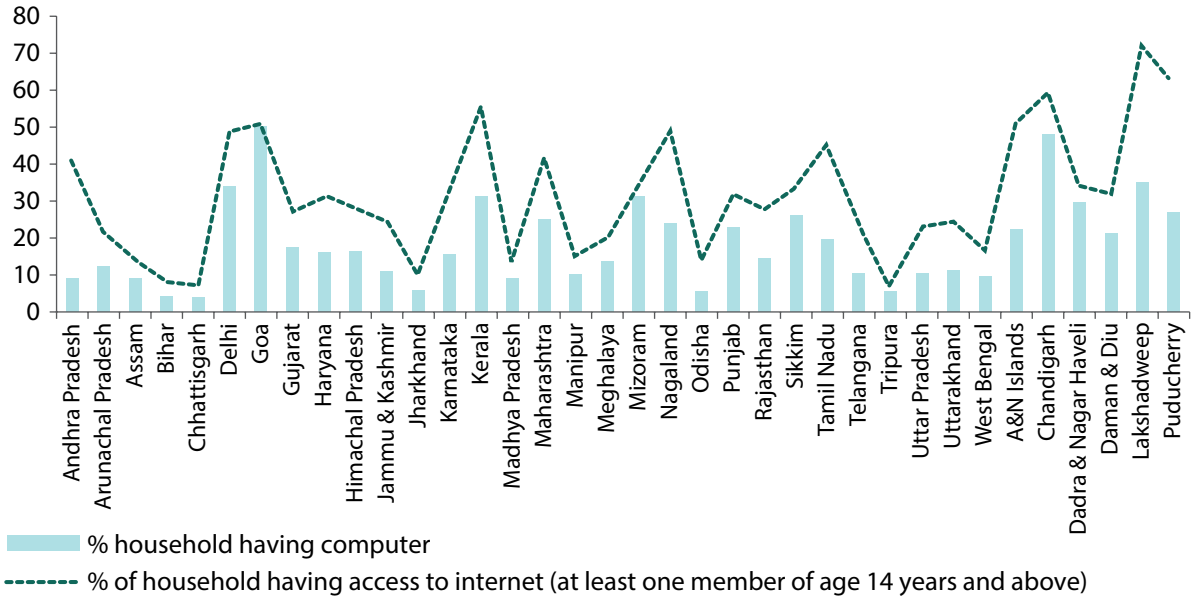
1 NSS considers all digital devices such as desktops, laptops, notebooks, net-books, palmtops and smart phones as computers.

TABLE 2.2: PURPOSE OF USAGE OF A COMPUTER (%) (2013-14)

State/UT	Ability to Operate a Computer (Percentage in the Population of a Particular Age Group)								Ability to Use a Computer for Various Uses (Percentage of Respondents Aged 14 Years and above)					
	Male				Female				Male			Female		
	Age Group (Years)				Age Group (Years)				Typing	Internet for		Typing	Internet	
	14-29	30-45	45-60	60+	14-29	30-45	45-60	60+		Search	e-mails		search	e-mails
Andhra Pradesh	34	14	8	2	21	6	2	0	18	18	17	8	8	7
Arunachal Pradesh	30	13	8	0	21	5	1	0	18	16	15	11	10	9
Assam	21	7	9	2	16	3	2	2	11	10	10	7	6	5
Bihar	16	4	2	2	8	1	0	0	7	8	7	29	3	3
Chhattisgarh	14	5	4	2	9	3	1	0	7	7	6	4	3	3
Delhi	57	42	29	34	54	27	20	19	44	45	44	34	33	33
Goa	78	31	30	21	64	27	18	4	44	40	36	32	25	24
Gujarat	41	19	11	4	27	8	4	0	23	21	20	13	10	9
Haryana	42	16	7	8	30	10	4	1	23	23	20	15	13	11
Himachal Pradesh	51	20	13	3	40	9	5	1	26	24	23	16	15	14
Jammu & Kashmir	29	11	6	4	20	4	3	3	15	15	13	8	8	6
Jharkhand	22	5	6	0	11	2	1	0	11	11	10	5	4	4
Karnataka	41	19	9	2	30	10	3	2	22	21	19	14	12	11
Kerala	81	34	16	6	74	25	9	2	37	35	33	30	25	22
Madhya Pradesh	23	9	8	2	14	4	2	0	13	13	12	6	6	6
Maharashtra	45	24	14	8	35	13	7	3	26	27	25	17	16	16
Manipur	24	8	5	2	15	4	2	0	8	11	9	3	6	4
Meghalaya	30	12	7	9	30	9	3	1	18	16	11	16	13	9
Mizoram	49	32	20	5	43	25	16	2	31	23	19	26	19	15
Nagaland	77	42	38	8	63	23	14	0	48	45	44	35	29	33
Odisha	18	9	5	1	12	2	1	0	10	10	10	5	5	4
Punjab	49	19	9	4	39	11	2	0	25	24	22	17	15	13
Rajasthan	34	12	8	3	17	4	2	0	18	18	16	7	7	6
Sikkim	37	25	12	1	38	16	6	0	26	26	26	23	23	23
Tamil Nadu	53	23	9	5	46	11	4	1	26	25	23	18	16	15
Telangana	39	20	6	6	25	6	3	0	22	22	21	11	10	10
Tripura	13	5	5	1	7	2	1	0	7	6	6	3	3	2
Uttar Pradesh	23	9	5	2	13	3	2	1	12	12	10	6	6	5
Uttarakhand	40	18	6	1	21	7	1	0	21	22	21	10	10	10
West Bengal	26	11	7	3	18	5	1	0	14	12	11	8	7	6
A&N Islands	38	16	7	0	37	10	14	0	19	18	15	20	15	13
Chandigarh	73	33	49	28	65	25	33	0	51	48	46	44	37	36
Dadra & Nagar Haveli	27	32	28	0	27	15	14	0	28	28	28	19	17	17
Daman & Diu	30	43	5	2	50	15	5	0	31	32	28	28	29	22
Lakshadweep	65	47	30	17	57	22	3	0	47	45	44	28	26	24
Puducherry	61	42	22	16	57	18	15	1	39	41	38	27	27	25
All-India	**32**	**14**	**8**	**4**	**23**	**7**	**3**	**1**	**18**	**17**	**16**	**11**	**10**	**9**

Source: National Sample Survey (NSS), Report No. 575(71/25.2/1) (2015), Government of India.

FIGURE 2.3: HOUSEHOLDS WITH ACCESS TO COMPUTERS AND INTERNET FACILITY (%) (2013-14)



Source: Prepared by the authors from NSSO data, Report No. 575 (71/25.2/1).

therefore, reveals primarily two things: Firstly, the percentages are significantly low (for example, only approximately 17 per cent of the male and 10 per cent of the female respondents in the age group of 14–29 years can use computers for typing and browsing purposes); and secondly, there are large regional (state-wise) disparities. Both these findings call for the urgent implementation of a national level digital literacy programme.

On the other hand, Figure 2.3 reveals the existing digital base for such a programme, in terms of access to computers and Internet facility. On an average, only 14 per cent of the Indian households possess computers and 27 per cent have access to internet facility. However, there are significant disparities among the states/UTs. For instance, states like Bihar, Chhattisgarh, Jharkhand, Odisha and Tripura are far behind states/UTs like Goa, Chandigarh and Delhi in terms of the number of households having computers. At the same time, in states like Andhra Pradesh and Tamil Nadu, comparatively fewer households possess computers though access to the Internet is quite high.

It was in this backdrop of diverse digital capabilities and the dire need to augment these capabilities that the National Digital Literacy Mission was launched in August 2014. The programme is briefly described in the following sections.

NATIONAL DIGITAL LITERACY MISSION (NDLM)[2]

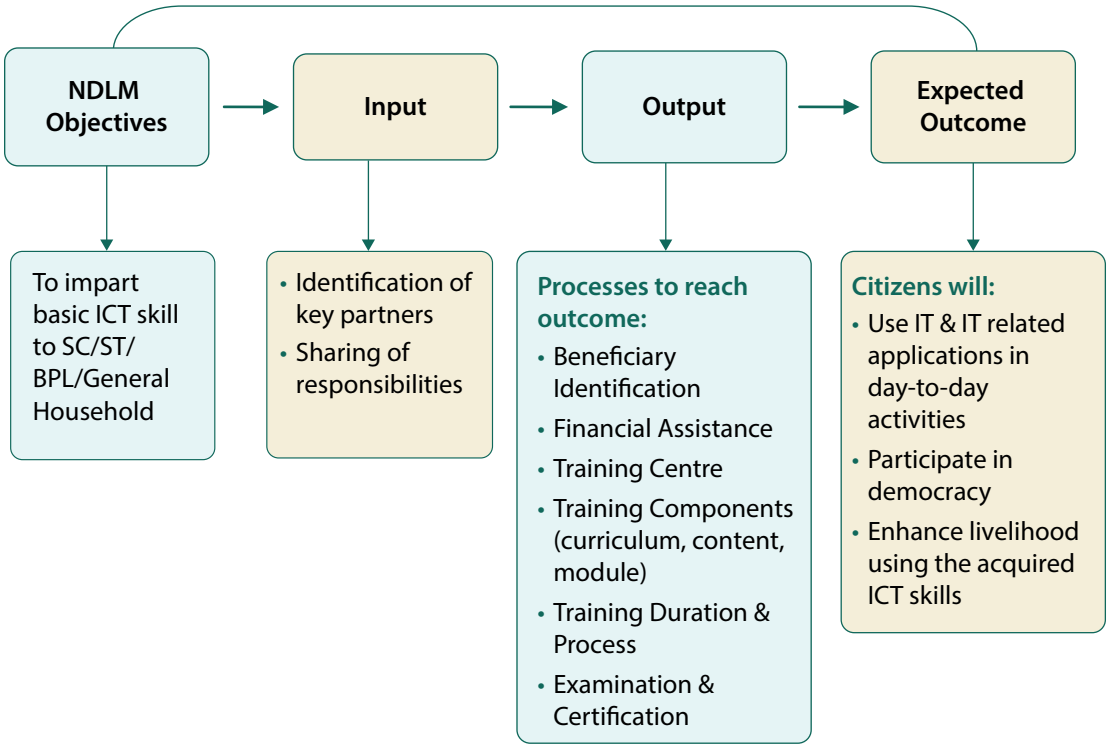
Gauging the importance of the usage of ICT for human development and the economy of the country, the National Policy on Information and Technology (NPIT), 2012, articulated the broad objective of digital literacy: making one person in every household of India e-literate in order to bridge the existing digital divide (Government of India, 2012). In line with the objective of the National IT Policy, NDLM was launched in August 2014 with the aim of providing digital literacy to 52.5 lakh Indians, that is, one in every eligible household in the selected blocks of every state and UT in the country. In the first phase, 10 lakh citizens have been trained under NDLM, while the remaining 42.5 lakh people are slated to be trained in the second phase.

NDLM OBJECTIVES

The primary objective of the scheme is to enable the beneficiaries to use IT and IT-related applications for effectively participating in the democratic processes and enhancing their

2 The forthcoming section on NDLM is based on the information available in http://www.ndlm.in.

FIGURE 2.4: PROCESS OF NDLM



Source: Prepared by the authors.

livelihood opportunities. The specific objectives of the scheme are to make IT-illiterate persons competent enough to operate digital devices like mobile phones, tablets, and computers so that they can send and receive emails, and search for information on the Internet. The process is briefly described in Figure 2.4.

TARGETED BENEFICIARIES

The targeted beneficiaries of NDLM were selected from households wherein no member in the age group of 14 to 60 years is IT-literate. Moreover, adequate representation was given to women, persons belonging to the disadvantaged groups (SCs/STs) and BPL households.

IMPLEMENTING AGENCY

CSC e-Governance Services Limited, the Special Purpose Vehicle (SPV) of the Ministry of Electronics and Information Technology (MEITY), is the implementing agency for NDLM. The programme is being implemented with the active collaboration of all the state governments and UT administrations.

COURSE

The course entitled 'Appreciation of Computer Concepts (ACC)' was prescribed for the trainees of NDLM. The duration of the training course is for a total of 20 hours, to be logged between a minimum of 10 days and a maximum of 30 days. The details of the content under this module are presented in Table 2.3.

The medium of instruction of the NDLM training was any of the official languages of India. A

TABLE 2.3: NDLM COURSE MODULE

Sl. No.	Module Name	Learning Hours
1.	Introduction to Digital Devices	2
2.	Operating Digital Devices	4
3.	Introduction to the Internet	2
4.	Communications using the Internet	6
5.	Applications of Internet	6
	Total	**20 hours**

Source: www.ndlm.in

nominal fee of Rs. 125 was to be paid by candidates belonging to the 'General' category while SC, ST and BPL households were provided the training free of cost.

MODE OF TRAINING

The physical delivery of IT literacy training was designed in the Public–Private Partnership (PPP) mode, with support from various partner agencies. Each partner agency was assigned a specific area of operation and target by the respective state government/UT administration in consultation with CSC-SPV. The partners involved include:

- Adult Literacy Centres, Department of School Education and Literacy, MHRD;
- Common Service Centres (CSCs);
- National Institute of Electronics and Information Technology (NIELIT) Centres and their accredited centres;
- Indira Gandhi National Open University (IGNOU) and its authorised centres;
- Rural Self Employment Training Institutes (RSETIs);
- Non-Governmental Organisations (NGOs) involved in spreading IT literacy
- Industry partners;
- Companies with Corporate Social Responsibility (CSR) provisions; and
- Others.

EXPECTED LEARNING OUTCOME

After attending the IT literacy training, it was expected that the trainees would be able to perform the following:

- Explain the basics of digital devices;
- Use digital devices for accessing, creating, managing and sharing information;
- Use the Internet to browse in an effective and responsible manner;
- Use technology to communicate effectively; and
- Appreciate the role of digital technology in everyday life, in social life and at work.

ASSESSMENT AND CERTIFICATION

After completion of the training programme, the trained candidates of the programme undergo a term-end online examination at the centre of the certifying agency. The duration for the online examination is one hour and it covers 25 questions. Successful candidates are issued a digital version of the certificate on the spot. After formal verification of the course completion, the original certificate in hard copy is distributed to the successful candidates.

TRAINING TARGETS FOR DIFFERENT CATEGORIES OF STATES/UTs

In order to effectively implement the scheme across the country, the states and UTs were categorised into three broad categories (A, B and C) on the basis of their respective populations. The training targets of the first phase of NDLM for the states and UTs are expounded in Table 2.4.

TABLE 2.4: STATE/UT-WISE BREAK-UP OF THE TRAINING TARGETS

Categories	States/UTs	Training Target per State	Total Target
Category A (10 States)	Andhra Pradesh Bihar Gujarat Karnataka Madhya Pradesh Maharashtra Rajasthan Tamil Nadu Uttar Pradesh West Bengal	60,000	6,00,000
Category B (10 States)	Assam Chhattisgarh Delhi Haryana Jammu & Kashmir Jharkhand Kerala Odisha Punjab Uttarakhand	20,000	2,00,000
Category C (15 States/UTs)	Andaman & Nicobar Islands Arunachal Pradesh Chandigarh Dadra & Nagar Haveli Daman & Diu Goa Himachal Pradesh Lakshadweep Manipur Meghalaya Mizoram Nagaland Puducherry Sikkim Tripura	6666	1,00,000
Respondents supported by CSR, NGOs and others			1,00,000
Total			**10,00,000**

Source: Prepared by authors based on information from NDLM website – www.ndlm.in.

The subsequent chapters of the report present the findings and the analysis based on the interviews held with the beneficiaries, training partners and training centres of NDLM.

3
Beneficiaries of NDLM

INTRODUCTION

This chapter presents the findings of the survey in juxtaposition to the dimension on 'Beneficiary Coverage' and verifies the extent to which the objectives of NDLM have been met in terms of targeting the beneficiaries. The detailed findings are preceded by a brief discussion on the demographic and social background of the NDLM trainees (covered in the sample). This is followed by a delineation of the state-wise scenarios emerging from the different findings in relation to the target group of NDLM in terms of age, gender, caste and BPL/Non-BPL category, other components such as the trainee benefiting per family, digital literacy status of the trainee's family, and financial support offered to the beneficiaries.

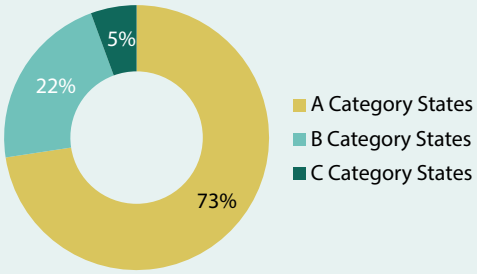
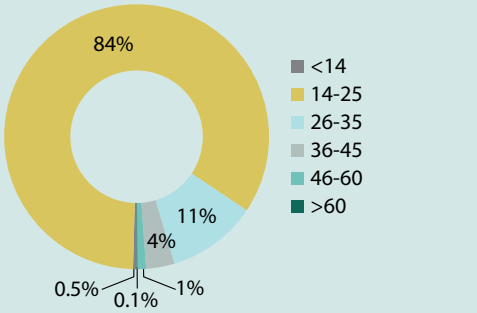
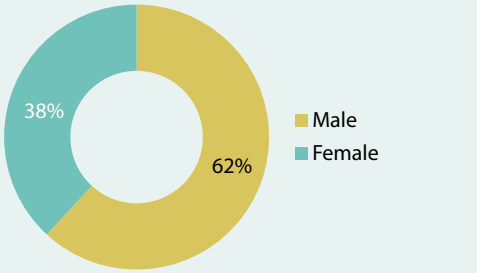
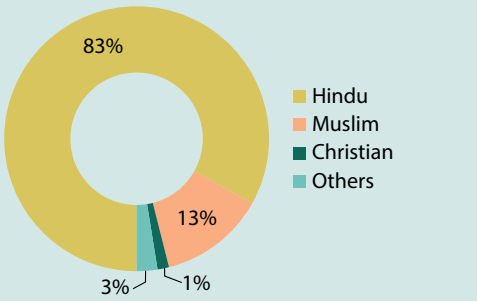
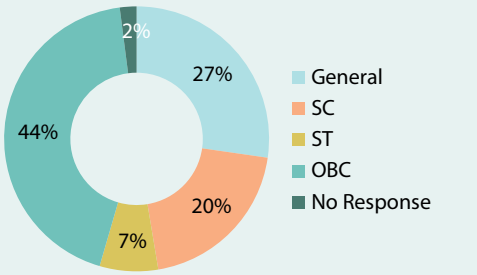
DEMOGRAPHIC AND SOCIAL PROFILE OF SAMPLE BENEFICIARIES

As per the sample selection procedure, about three-fourths of the sample beneficiaries are from the category A states, including Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. The respondents surveyed in the B and C category states accounted for 21 per cent and 6 per cent, respectively, of the total respondents surveyed under NDLM (Table 3.1). Initially, a total sample consisting of 20,000, 6670 and 3330 from the A, B and C category states, respectively, was to be selected for the survey, with the number of respondents selected being in proportion to the total population identified for training under NDLM in each of these states. However, due to the negligible number of trainees in the Andaman & Nicobar Islands, Assam, Dadra & Nagar Haveli, Goa, Meghalaya, Mizoram and Sikkim, these states were not covered for the survey. The Lakshadweep Islands too have been excluded from the survey, as NDLM training is not being imparted there. The survey data of Andhra Pradesh also includes Telangana, wherein the trainee beneficiaries were selected from Andhra Pradesh, while the training partners were selected from Telangana. Finally, therefore, a total of 27,557 beneficiaries were interviewed from 22 states and 4 Union Territories, with the majority of them being from the A category states.

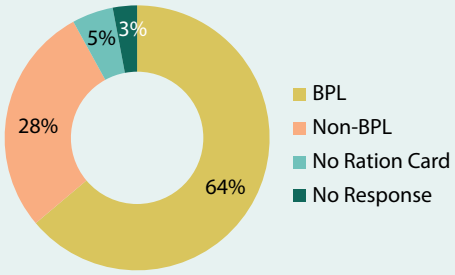
The age-wise classification of the beneficiaries reveals that the youngest lot of respondents in the age group of 14 to 25 years are the chief beneficiaries of NDLM training followed by candidates in the age bracket of 26 to 35 years, (84 per cent and 11 per cent, respectively). Nearly 4 per cent of the respondents trained were in the age group of 36 to 45 years, while the corresponding proportion in the age group of 46 to 60 years was 1 per cent. A negligible proportion of candidates in the age groups of below 14 years and above 60 years have also benefited from this training programme.

In terms of gender, the target of NDLM was to provide adequate representation to women, and the survey reveals that a substantial proportion of

TABLE 3.1: DEMOGRAPHIC AND SOCIAL PROFILE OF THE SAMPLE BENEFICIARIES

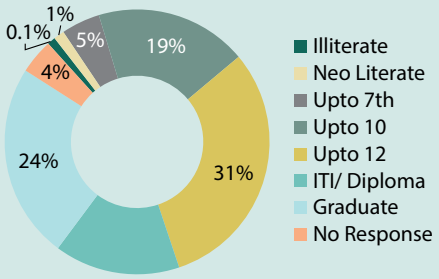
		Beneficiaries (No.)	Beneficiaries (%)
State wise Coverage 	A Category States	20,000	72.60
	B Category States	6,003	21.80
	C Category States	1,554	5.60
Age 	<14	119	0.43
	14-25	23,134	83.95
	26-35	3,033	11.01
	36-45	955	3.47
	46-60	289	1.05
	>60	27	0.10
Gender 	Male	17,043	61.85
	Female	10,514	38.15
Religion 	Hindu	22,903	83.11
	Muslim	3,569	12.95
	Christian	386	1.40
	Others	699	2.54
Caste 	General	7,516	27.27
	SC	5,538	20.10
	ST	1,968	7.14
	OBC	11,974	43.45
	No Response	562	2.04

Ration Card



BPL	17,602	63.87
Non-BPL	7748	28.12
No Ration Card	1388	5.04
No Response	816	2.96

Education Status



Illiterate	223	0.81
Neo Literate	410	1.49
Upto 7	1,306	4.74
Upto 10	5,115	18.56
Upto 12	8,529	30.95
ITI/Diploma	4,227	15.34
Graduate	6,578	23.87
No Response	1,169	4.24

Source: Survey.

the candidates trained were women (38 per cent), even though the male members were the major beneficiaries.

As regards religion, it can be observed that 83 per cent of the beneficiaries were Hindus, followed by Muslims (13 per cent), other categories (3 per cent) and Christians (1 per cent). The other categories include Sikhs, Jains, Parsis and Buddhists.

Although the NDLM training intends to offer higher representation to the SC and ST candidates, it can be observed that at the national level, a majority of the respondents were from the OBC category (44 per cent), followed by those from the general category (27 per cent). The proportion of beneficiaries from the SC and ST categories was quite low at 20 per cent and 7 per cent, respectively. About 2 per cent of the surveyed respondents did not want to reveal their caste identity.

In terms of reaching out to the BPL card-holders, the NDLM programme achieved its target in a remarkable manner, as it can be found that about 64 per cent of the candidates trained were from that category. However, the non-BPL card holders accounted for only 28 per cent of the trained population. While 5 per cent of the respondents did not have ration cards, 3 per cent did not respond to the question asking about possession of a ration card.

As far as the educational status of the candidates is concerned, the programme was mostly beneficial to the group falling in the category of the higher secondary level of education, and 31 per cent of the people trained belonged to this group. The next in this order are the people at the college level and 24 per cent of the graduates benefited from the NDLM training. In addition, 15 per cent of the Diploma holders and 9 per cent of those who had completed standards 9 and 10 were the other beneficiaries of the training programme. It can also be observed that the training programme had benefited illiterates and neo-literates too, though their proportion was comparatively low.

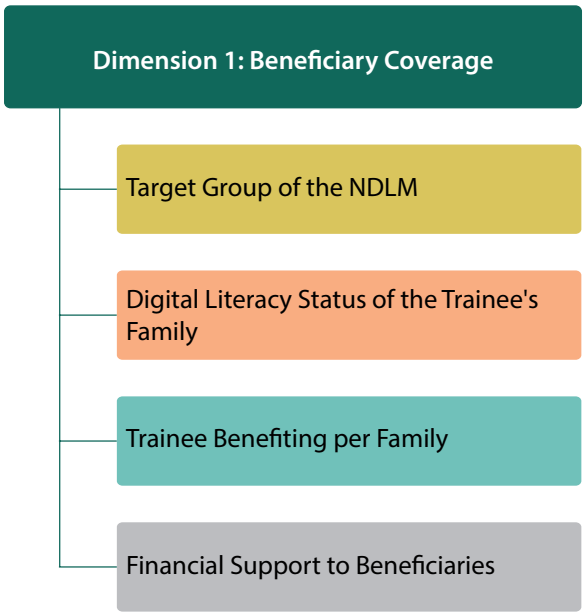
Overall, the national scenario reveals that NDLM has been remarkably successful in reaching out to the intended beneficiaries, particularly the BPL card-holders. However, the participation of women and SC/ST candidates was found to be lagging behind the target, which calls for appropriate strategies for targeting these two categories of beneficiaries in the next phase of the programme. However, state level disparities were noticed and a number of good practices were also

observed in different villages in various states. The state-wise analysis is presented in the next section, highlighting both regional discrepancies as well as some good practices which can be replicated by the other states in the next phase for ensuring better outcomes.

GROUND REALITIES: BENEFICIARY COVERAGE

This section presents the survey findings for the dimension on 'Beneficiary coverage', which is discussed in the light of the objectives of NDLM. The components that are covered under this dimension include: (i) Target group of the NDLM, (ii) Digital literacy status of the trainee's family, (iii) Trainee benefiting per family; and (iv) Financial support to beneficiaries. Following is a discussion on these indicators.

FIGURE 3.1: DIMENSIONS OF BENEFICIARY COVERAGE



Source: Prepared by the authors.

(i) Target Group of the NDLM

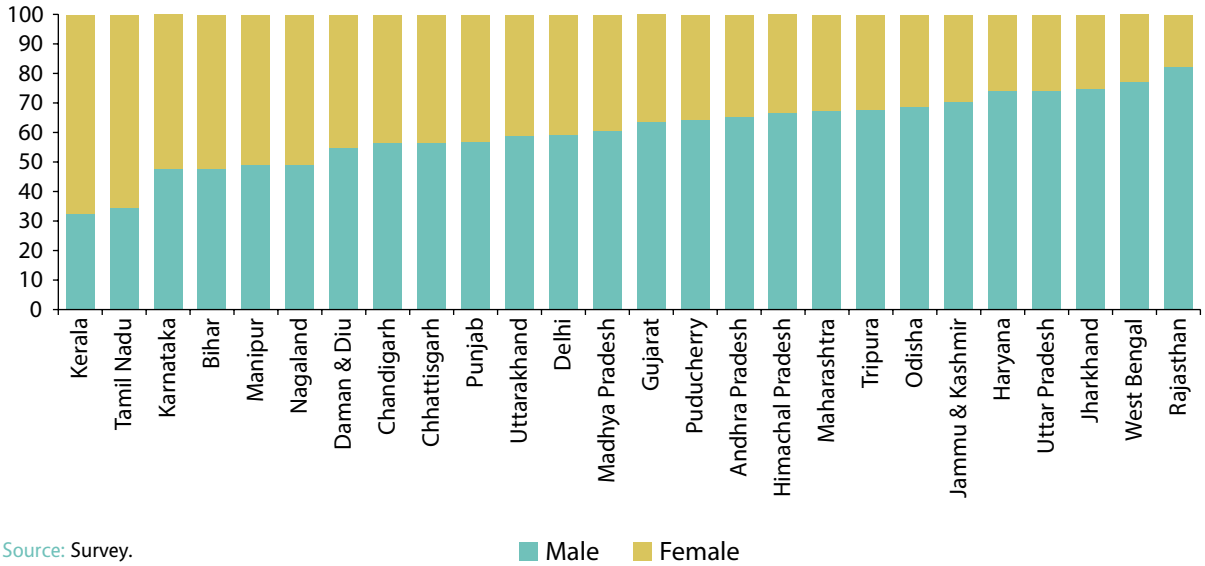
NDLM Objective: "The target group of the training is non-IT literate and illiterates in the age group of 14 to 60 years.... Reservation for SC/ST and BPL categories..... Preference to women beneficiary of an eligible household..."

The chief focus of this mission was laid on the target beneficiaries, viz. SCs/STs, BPL categories and women beneficiaries in the age group of 14 to 60 years. The discussion here presents the state-wise scenario, revealing the performance of the different states in meeting the targets.

(a) Gender

As stated earlier, the digital literacy programme intends to provide preference to women beneficiaries of the eligible households. The survey

FIGURE 3.2: NDLM TARGET GROUP: GENDER (%)



Source: Survey.

BOX 3.1: CASE STUDY OF MALLAMADUGU, TELANGANA: VILLAGE WITH MORE WOMEN REPRESENTATIVES

Strategic measures were visible in the efforts taken by the VLEs of Telangana. The appropriate candidates for the NDLM training were identified by carrying out a door-to-door survey, covering every household of the village. In the Mallamadugu village, out of 400 people who were trained, 98 per cent were women and most of them were in the age group of 25 to 35 years. Different batches of NDLM training with a time slot catering to the preference of women candidates were organised, which was critical for ensuring greater representation of women.

Source: Survey.

reveals that though male members were the major beneficiaries of the NDLM training, in some of the states, more than 50 per cent of the beneficiaries trained were women. In Kerala and Tamil Nadu, 67.3 per cent and 65.4 per cent of the trainees, respectively, were women, while the corresponding proportion in Karnataka, Bihar, Manipur and Nagaland was 50 per cent.

Female enrolment in the training is, however, low in the states of Rajasthan, West Bengal, Jharkhand and Uttar Pradesh. Gender disparity between states like Kerala, on one hand, and Haryana, Uttar Pradesh, Jharkhand, and Rajasthan, on the other hand, is indicative of the national scenario reflecting the male female literacy rate existing in our country as per NSS data. However, there are some states like Tripura and West Bengal, where the gender disparity as per NSS data is low, in contrast to our sample findings. Sex discrepancy in the coverage of NDLM can be attributed to many reasons, which need to be seen in tandem with the other findings. However, some states have taken innovative measures to increase women's participation by taking some women-friendly measures like organising the training in convenient time slots like the noon or afternoon, particularly for housewives when they are relatively free.

(b) Age

The target age group of this programme is 14 to 60 years. Similar to the national scenario, in almost all the states, young people in the age group of 14 to 25 were the chief beneficiaries (Table 3.2).

There are a number of states where more than 90 per cent of the trainees were found to be in this age group, including Chandigarh, Bihar, Daman & Diu and Delhi. Since this is the age group where people generally complete their studies and apply for jobs, this skill development training programme attracted them the most. At the same time, targeting this age bracket is also much easier in different educational institutions like schools and colleges.

Regional variations were found among the group of young professionals (that is, the age bracket of 26-35 years), whereas in some states the ratios were found to be significant, for example, Himachal Pradesh (22 per cent), followed by Tripura (17 per cent), Nagaland (16 per cent) and Jammu & Kashmir (15 per cent). There were also some states/UTs where the ratios were much lower, such as Bihar (5 per cent) and Chandigarh (3 per cent).

If the low share of beneficiaries is due to the fact that the timing of the training clashed with their busy working hours, then a separate time slot for working people can help increase their participation. Some states witnessed a surprising trend in terms of the age category of the candidates: the proportion of participants from the non-target group—children below 14 years and adults above 60 years—was high. For instance, in Odisha, 8 per cent of the candidates surveyed were below 14 years, but in other states, the figure in this category was negligible. Elderly candidates above 60 years showed an interest in acquiring the NDLM training in some of the states, viz. Haryana, Maharashtra, and Andhra Pradesh, though their proportion was small. The elderly trainees were found to be using Skype and WhatsApp to get connected with their relatives who were staying abroad.

TABLE 3.2: COVERAGE OF BENEFICIARIES: AGE (YEARS) (%)

Sl. No.	States/UTs	<14	14-25	26-35	36-45	46-60	>60
	Category A States						
1.	Andhra Pradesh	0.45	81.55	12.90	3.80	1.15	0.15
2.	Bihar	0.00	93.35	5.10	1.00	0.45	0.10
3.	Gujarat	0.25	78.30	14.50	4.15	2.70	0.10
4.	Karnataka	0.05	87.40	9.05	2.45	1.05	0.00
5.	Madhya Pradesh	0.35	82.60	12.65	3.85	0.45	0.10
6.	Maharashtra	0.35	82.35	11.50	4.65	0.85	0.30
7.	Rajasthan	0.35	89.35	8.30	1.60	0.30	0.10
8.	Tamil Nadu	0.35	78.95	13.95	5.40	1.25	0.10
9.	Uttar Pradesh	0.25	88.10	9.65	1.60	0.35	0.05
10.	West Bengal	0.25	83.40	11.35	3.85	1.05	0.10
	Category B States/UTs						
11.	Chhattisgarh	0.00	85.31	10.94	3.30	0.45	0.00
12.	Delhi	0.00	90.40	5.85	2.85	0.75	0.15
13.	Haryana	0.15	81.71	14.99	2.10	0.75	0.30
14.	Jammu & Kashmir	0.45	80.66	15.14	2.85	0.90	0.00
15.	Jharkhand	0.30	84.71	10.34	3.90	0.75	0.00
16.	Kerala	0.15	74.66	14.69	7.35	3.15	0.00
17.	Odisha	8.40	76.91	9.00	4.50	1.05	0.15
18.	Punjab	0.00	86.21	9.45	3.45	0.90	0.00
19.	Uttarakhand	0.15	84.71	10.19	3.30	1.50	0.15
	Category C States/UTs						
20.	Chandigarh	0.00	95.05	3.15	0.90	0.90	0.00
21.	Daman & Diu	0.00	94.59	4.50	0.90	0.00	0.00
22.	Himachal Pradesh	0.00	62.16	22.97	10.81	4.05	0.00
23.	Manipur	0.45	83.78	8.11	6.31	1.35	0.00
24.	Nagaland	0.00	69.82	16.22	10.81	3.15	0.00
25.	Puducherry	0.45	85.14	10.36	2.70	1.35	0.00
26.	Tripura	0.00	75.23	17.12	5.41	2.25	0.00
	All India	**0.43**	**83.95**	**11.01**	**3.47**	**1.05**	**0.10**

Source: Survey.

(c) Caste

One of the objectives of the NDLM training programme is to accord adequate representation to the SC and ST candidates, but this goal was attained only in some states. Overall, in most of the states, the representation of OBC candidates was the highest, followed by that of the General category candidates (Table 3.3).

Table 3.3 also reveals that the representation of the SC trainees was high in the states of Rajasthan, followed by Punjab, Chandigarh and Tripura. On the other hand, this percentage was low in a few states like Jammu & Kashmir, Kerala and Daman & Diu. It was also observed that the proportion of ST candidates was high in Nagaland, followed by that in Chhattisgarh, Daman & Diu and Gujarat. In contrast, the states of Bihar, Punjab, Chandigarh and Tamil Nadu witnessed a very low percentage, of ST candidates, at only 1 per cent.

TABLE 3.3: COVERAGE OF BENEFICIARIES: CASTE (%)

Sl. No.	States/UTs	General	SCs	STs	OBCs
	Category A States				
1.	Andhra Pradesh	27.25	16.65	9.35	43.85
2.	Bihar	13.15	16.10	0.95	69.10
3.	Gujarat	35.45	12.75	15.35	35.30
4.	Karnataka	39.95	18.00	6.50	34.65
5.	Madhya Pradesh	19.55	23.00	8.45	48.50
6.	Maharashtra	19.05	16.80	9.10	50.60
7.	Rajasthan	10.35	45.05	6.80	37.60
8.	Tamil Nadu	2.45	21.80	1.90	69.65
9.	Uttar Pradesh	25.65	21.15	2.40	49.30
10.	West Bengal	37.8	22.45	9.30	28.90
	Category B States/UTs				
11.	Chhattisgarh	12.29	11.69	18.14	56.97
12.	Delhi	52.77	17.39	3.90	24.89
13.	Haryana	45.73	19.49	4.50	28.04
14.	Jammu & Kashmir	69.72	5.85	2.10	12.29
15.	Jharkhand	19.79	13.34	7.50	54.27
16.	Kerala	44.53	7.50	6.45	41.38
17.	Odisha	28.64	19.94	6.30	43.18
18.	Punjab	39.13	35.38	1.05	23.99
19.	Uttarakhand	56.07	10.94	5.85	23.84
	Category C States/UTs				
20.	Chandigarh	44.14	33.33	1.80	19.37
21.	Daman & Diu	31.08	9.91	18.02	40.99
22.	Himachal Pradesh	41.89	23.87	11.71	20.72
23.	Manipur	26.58	17.57	12.16	41.44
24.	Nagaland	22.97	17.57	35.14	18.92
25.	Puducherry	3.15	13.51	3.60	78.38
26.	Tripura	30.18	27.93	4.95	34.68
	All India	**27.27**	**20.10**	**7.14**	**43.45**

Source: Survey.

BOX 3.2: EMPOWERMENT OF ST COMMUNITY, DINDORI DISTRICT, MADHYA PRADESH


डिंडौरी की बेटी ने किया नाम रोशन

15 दिन की कम्प्यूटर ट्रेनिंग लेकर ग्राम पंचायत में खोला कामन सर्विस सेंटर

In the Dindori district of Madhya Pradesh, where the literacy rate of Scheduled Tribes (STs) is below 50 per cent, Narbadiya Maravi, a girl from the ST community opens her own Common Service Centre (CSC) in her small backward village, after clearing the NDLM training, as revealed by a training partner in Madhya Pradesh. This inspired other people from her tribal community to seek an opportunity for availing of the digital training even without moving out of the village. She is hopeful that other people from her tribal community will also become self-reliant economically in the near future after receiving the digital training.

Source: Survey.

TABLE 3.4: BENEFICIARIES OF NDLM TRAINING: BPL/NON-BPL (%)

Sl. No.	States/UTs	BPL	Non BPL	No Ration Card	No Response
	Category A States				
1.	Andhra Pradesh	82.75	13.20	3.40	0.65
2.	Bihar	79.35	14.05	5.50	1.10
3.	Gujarat	58.45	29.50	7.35	4.70
4.	Karnataka	82.05	14.00	3.55	0.40
5.	Madhya Pradesh	61.65	25.35	5.80	7.20
6.	Maharashtra	67.60	32.40	0.00	0.00
7.	Rajasthan	57.25	40.25	1.60	0.90
8.	Tamil Nadu	79.90	18.60	0.55	0.85
9.	Uttar Pradesh	74.80	12.40	9.20	3.60
10.	West Bengal	46.70	49.50	1.75	2.00
	Category B States/UTs				
11.	Chhattisgarh	74.21	16.49	8.25	1.05
12.	Delhi	43.78	29.84	14.54	11.84
13.	Haryana	35.23	58.02	2.40	4.35
14.	Jammu & Kashmir	46.03	51.42	1.20	1.35
15.	Jharkhand	46.78	33.58	14.39	5.25
16.	Kerala	51.27	47.83	0.75	0.15
17.	Odisha	53.82	34.48	7.95	3.75
18.	Punjab	63.87	25.94	6.15	4.05
19.	Uttarakhand	51.87	41.08	3.60	3.45
	Category C States/UTs				
20.	Chandigarh	57.66	14.86	17.57	9.91
21.	Daman & Diu	45.95	32.43	9.01	12.61
22.	Himachal Pradesh	45.95	48.65	1.80	3.60
23.	Manipur	36.94	27.93	22.07	13.06
24.	Nagaland	13.06	24.32	44.14	18.47
25.	Puducherry	55.41	33.33	1.35	9.91
26.	Tripura	50.45	45.50	2.70	1.35
	All India	**63.87**	**28.12**	**5.04**	**2.96**

Source: Survey.

(d) BPL/Non-BPL

One of the targets of the NDLM training is to provide adequate representation to the BPL card-holders in the digital training. The survey reveals that almost all the states have performed well in terms of meeting this target: more than 40 per cent of the respondents were BPL card-holders, as illustrated in Table 3.4.

As far as the state wise-scenario is concerned, Andhra Pradesh and Karnataka account for more than 80 per cent of the beneficiaries possessing BPL cards while the corresponding figure is 79 per cent and in Tamil Nadu and Bihar. On the other hand, in Nagaland, only 13 per cent of the beneficiaries had a BPL background while 44 per cent of the respondents in these states said that they did not own a ration card. Manipur ranks second in terms of respondents with no ration card, followed by Chandigarh, Delhi and Jharkhand. The number of non-BPL cardholders, who received NDLM training, was the highest in Haryana, followed by Jammu & Kashmir, West Bengal and Himachal Pradesh.

On the whole, in terms of reaching the intended target groups, the performance of Karnataka, West Bengal, Andhra Pradesh, Rajasthan and Gujarat is quite good. While medium level

performance is exhibited by Bihar, Uttarakhand, Kerala and Punjab, some of the states and UTs still have to catch up with the remaining states in reaching the intended target groups. The states and UTs which have the lowest record for this parameter are Daman & Diu, Manipur, Nagaland and Himachal Pradesh.

(ii) Digital Literacy Status of Trainee's Family

NDLM Objective: "All the households where none of the persons in the age group of 14 to 60 years is IT-literate would become eligible ..."

The objective of NDLM is to provide digital literacy to a family wherein not a single member of the family has been introduced to IT. The survey reveals that this aim has been successfully fulfilled in most of the states/UTs. From Table 3.5, it can be observed that in Punjab, Uttarakhand, Kerala and Tripura, more than 90 per cent of the respondents stated that their respective families did not have digital literacy status before availing of the training. The all-India picture reveals that 74.3 per cent of the trained beneficiaries belong to families with one IT literate member, and almost 12 states have crossed the national average.

TABLE 3.5: BENEFICIARIES REPORTING ABOUT THEIR FAMILY'S STATUS REGARDING DIGITAL LITERACY (%)

Sl. No.	States/UTs	None	Less than 2 Members	2-4 Members	More than 4
	Category A States				
1.	Andhra Pradesh	50.60	35.55	11.35	2.50
2.	Bihar	24.80	15.00	57.20	3.00
3.	Gujarat	29.25	51.35	17.35	2.05
4.	Karnataka	66.25	22.85	9.35	1.55
5.	Madhya Pradesh	31.05	28.40	30.15	10.40
6.	Maharashtra	30.20	42.35	23.35	4.10
7.	Rajasthan	63.00	18.05	15.70	3.25
8.	Tamil Nadu	59.30	15.65	23.65	1.40
9.	Uttar Pradesh	33.80	38.20	26.20	1.80
10.	West Bengal	51.95	36.80	7.80	3.45
	Category B States/UTs				
11.	Chhattisgarh	20.99	45.43	28.19	5.40
12.	Delhi	19.94	37.33	38.68	4.05
13.	Haryana	21.74	46.48	27.44	4.35
14.	Jammu & Kashmir	49.18	27.74	21.74	1.35
15.	Jharkhand	36.28	36.88	23.69	3.15
16.	Kerala	66.87	23.84	6.30	3.00
17.	Odisha	24.59	40.63	25.94	8.85
18.	Punjab	13.49	69.87	15.14	1.50
19.	Uttarakhand	52.47	40.18	3.90	3.45
	Category C States/UTs				
20.	Chandigarh	34.68	49.10	13.96	2.25
21.	Daman & Diu	19.82	22.07	56.76	1.35
22.	Himachal Pradesh	21.17	48.20	17.12	13.51
23.	Manipur	13.96	40.09	37.84	8.11
24.	Nagaland	26.13	34.68	34.23	4.95
25.	Puducherry	71.62	22.07	5.41	0.90
26.	Tripura	49.10	44.59	5.41	0.90
	All India	**41.25**	**33.10**	**22.12**	**3.54**

Source: Survey.

However, it came to light that families with members having knowledge of IT have also benefited from the NDLM training. The survey revealed that 22.12 per cent of the beneficiaries belong to families with 2 to 4 members who already have digital literacy.

In some states/UTs like Kerala, Karnataka, and Puducherry, the norm of meeting the family with no digital literacy background was rightfully met, due to the measures taken by the Village Level Entrepreneurs (VLEs). The potential households for the training were properly verified through door-to-door surveys before their members were enrolled enrolling the students into the training programme.

(iii) Trainee Benefiting per Family

NDLM Objective: "All the households where none of the persons in the age group of 14 to 60 years is IT-literate would become eligible.... Of the eligible households, one person would be selected for the training..."

The study reveals that at the national level, 76.3 per cent of the respondents had only one family member to attend the computer training programme, whereas, 24 per cent reported that

TABLE 3.6: TRAINEE BENEFITING PER FAMILY (%)

Sl. No.	States/UTs	One per Family	More than one per Family
	Category A States		
1.	Andhra Pradesh	79.65	20.35
2.	Bihar	78.60	21.40
3.	Gujarat	75.95	24.05
4.	Karnataka	79.40	20.60
5.	Madhya Pradesh	80.80	19.20
6.	Maharashtra	85.20	14.80
7.	Rajasthan	29.05	70.95
8.	Tamil Nadu	85.80	14.20
9.	Uttar Pradesh	71.25	28.75
10.	West Bengal	79.00	21.00
	Category B States/UTs		
11.	Chhattisgarh	69.27	30.73
12.	Delhi	85.91	14.09
13.	Haryana	86.21	13.79
14.	Jammu & Kashmir	75.11	24.89
15.	Jharkhand	82.01	17.99
16.	Kerala	91.30	8.70
17.	Odisha	86.66	13.34
18.	Punjab	85.76	14.24
19.	Uttarakhand	86.81	13.19
	Category C States/UTs		
20.	Chandigarh	80.18	19.82
21.	Daman & Diu	62.16	37.84
22.	Himachal Pradesh	70.27	29.73
23.	Manipur	84.23	15.77
24.	Nagaland	81.08	18.92
25.	Puducherry	50.45	49.55
26.	Tripura	86.49	13.51
	All India	**76.33**	**23.67**

Source: Survey.

more members from their families had availed of the IT training.

In states such as Kerala, Uttarakhand, Odisha, Tripura, Haryana and Delhi, more than 80 per cent of the respondents stated that only one member from each of their respective families had attended the NDLM training. However, in several states/UTs such as Rajasthan, Puducherry and Daman & Diu, more than one member per family had been trained.

This particular finding has to be analysed in the cultural context of joint families. For instance, in Rajasthan, it was informed by several of the respondents that more than 2 to 3 members from their family has availed the NDLM training. When further inquiry was made, it was informed that they live in a joint family set up and by showing the separate ration cards of the cousin brothers and sisters they got enrolled into the programme.

(iv) Financial Support to Beneficiaries

NDLM Objective: "For SC/ST/BPL Households, no training fee payable and for General candidates, course fee of Rs. 125 applicable".

The ground reality with respect to the fee structure and financial assistance was verified in the different states, and is depicted in Figure 3.3. At the national level, it can be observed that, more than 85 per cent of the respondents from both the SC/ST communities and the General/ OBC categories have received free training. Only a small proportion of the sample beneficiaries from these communities were paying the prescribed fee of Rs.125, while more than the prescribed amount was also paid by some.

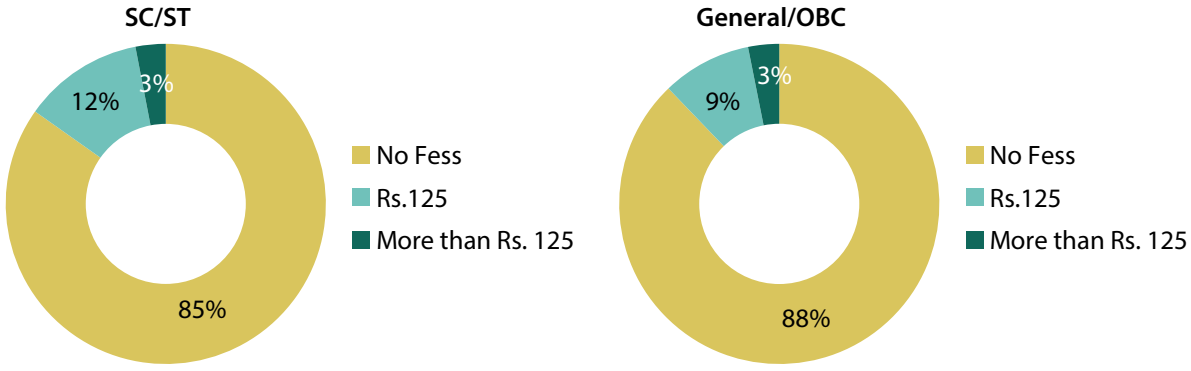
Among the 27,557 respondents interviewed, the response to the question on the fee structure was received from 26,996 respondents. Although financial support was prescribed only for the SC/ST and BPL candidates, it was found that this financial support was also being availed of by 87.8 per cent of the total OBC and General candidates. While the OBC and General candidates students are supposed to be paying a fee of Rs.125, only 9.04 per cent of the total OBC and General candidates reported of paying the prescribed fee. Further, 3.13 per cent of the OBC/ general candidates revealed that they were asked to pay more than the prescribed fee levied by the training centre.

(a) SC/ST and General Candidates

One of the surprising revelations of the Impact Assessment Study is that the intended fee structure was not maintained at every level of the NDLM programme. It was found that the training was provided free of cost to different candidates irrespective of their caste status while some of the training centres charged a fee from all the different categories of candidates irrespective of their caste status.

Table 3.7 presents the state-wise scenario regarding the financial assistance offered to

FIGURE 3.3: FINANCIAL SUPPORT TO SC/ST AND GENERAL/OBC CANDIDATES (%)



Source: Survey.

TABLE 3.7: BENEFICIARIES REPORTING ABOUT FREESHIPS AND FEES PAID (%)

Sl. No.	States	SC/ST			General and OBC		
		No Fees	Rs. 125	Fees above Rs. 125	No Fess	Rs. 125	Fees above Rs. 125
	Category A States						
1.	Andhra Pradesh	89.92	4.46	5.62	88.13	6.68	5.19
2.	Bihar	34.55	63.38	2.07	55.54	41.75	2.71
3.	Gujarat	94.26	4.55	1.19	94.67	4.03	1.30
4.	Karnataka	81.41	14.46	4.13	80.67	16.01	3.32
5.	Madhya Pradesh	84.65	7.01	8.34	84.47	6.58	8.95
6.	Maharashtra	97.24	1.68	1.09	96.77	1.61	1.61
7.	Rajasthan	84.26	11.89	3.85	87.03	9.68	3.29
8.	Tamil Nadu	95.91	2.61	1.48	96.34	2.37	1.29
9.	Uttar Pradesh	90.40	6.60	3.01	90.34	7.15	2.51
10.	West Bengal	93.50	3.85	2.65	94.15	3.33	2.52
	Category B States/UTs						
11.	Chhattisgarh	81.71	13.41	4.88	79.56	13.62	6.81
12.	Delhi	90.53	3.16	6.32	84.40	10.70	4.90
13.	Haryana	87.56	7.66	4.78	88.24	6.31	5.45
14.	Jammu & Kashmir	93.75	3.13	3.13	94.17	3.10	2.73
15.	Jharkhand	95.87	2.18	1.94	95.42	2.88	1.70
16.	Kerala	92.04	5.73	2.23	94.98	4.29	0.73
17.	Odisha	97.55	1.53	0.92	98.21	1.20	0.60
18.	Punjab	73.05	22.16	4.79	79.83	16.14	4.03
19.	Uttarakhand	88.89	10.10	1.01	88.71	8.64	2.65
	Category C States/UTs						
20.	Chandigarh	97.83	0.00	2.17	95.54	3.82	0.64
21.	Daman & Diu	99.24	0.00	0.76	98.97	0.69	0.34
22.	Himachal Pradesh	81.69	14.08	4.23	79.67	14.75	5.57
23.	Manipur	92.44	5.04	2.52	92.39	5.80	1.81
24.	Nagaland	97.50	2.50	0.00	96.93	2.30	0.77
25.	Puducherry	96.70	2.20	1.10	96.46	2.65	0.88
26.	Tripura	95.45	3.41	1.14	94.72	2.82	2.46
	All India	**84.80**	**12.16**	**3.04**	**87.83**	**9.04**	**3.13**

Source: Survey.

different categories of beneficiaries. It can be observed that across the states, the NDLM course was offered free of cost to most of the candidates, irrespective of their caste categories. It can be further noticed that more than 90 per cent of the SC/ST respondents in the states/UT of Daman & Diu, Chandigarh, Odisha, Nagaland, Maharashtra, Puducherry, Tamil Nadu, Jharkhand and Tripura reported of availing this training free of cost. Although the stipulation of imparting training free of cost to the marginalised groups had a relatively significant impact, as seen from Table 3.7, the corresponding impact on the respondents belonging to the general and OBC categories was also notably high.

In the states and UTs of Daman & Diu, Odisha, Nagaland, Maharashtra, Puducherry, Tamil Nadu, Chandigarh and Jharkhand, more than 90 per cent of the General category and OBC

trainees revealed that they got free training. Further, a fee of Rs. 125 was also collected from the SC/ST candidates as alleged by them, and the percentage of such candidates was high in Bihar and Punjab. Similar was the case with the OBC and general candidates, and this proportion was high in the states of Bihar, Punjab and Karnataka.

There were also incidences of candidates reporting having paid extra fees and such candidates belonged to all the categories (SC/ST, OBC and General). The proportion of such students was particularly high in Madhya Pradesh and Delhi in the case of SC/ST candidates whereas the corresponding percentage was high for the General candidates in the states of Madhya Pradesh, Chhattisgarh, Himachal Pradesh and Haryana.

It can thus be concluded that the financial benefit often got diverted to groups other than the targeted beneficiaries. Other malpractices occurring at some of the training centres also came to light, pointing to the need for better monitoring and checking at all the training centres.

(b) BPL and non-BPL candidates

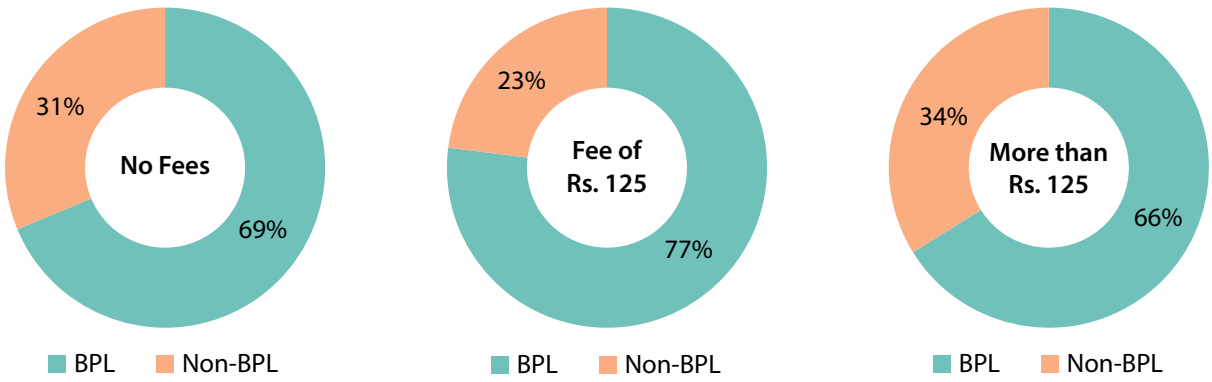
Figure 3.4 and Table 3.8 present the national scenario pertaining to the financial support provided to the BPL and non-BPL beneficiaries. It can be observed from the 'No fee' category that the training was provided free of cost to 68 per cent and 31 per cent of the BPL and non-BPL trainees, respectively.

Among the group of people who paid a fee of Rs. 125, 77 per cent belong to the BPL and 23 per cent to non-BPL categories. Further, among the candidates who reported paying extra fees, 66.1 per cent and 33.9 per cent belong to the BPL and non-BPL categories, respectively.

Overall, the state-wise picture as depicted in Table 3.8 indicates that in almost all the states, persons belonging to the BPL categories are the major beneficiaries, receiving free. In Andhra Pradesh, Chhattisgarh, Karnataka, Tamil Nadu and Uttar Pradesh, more than 80 per cent of the BPL students reported that they were provided free training. However, the survey also reveals that a fee of Rs. 125 was charged from candidates belonging to the BPL categories, and the proportion of such candidates was high in Nagaland, Bihar, Chandigarh, Chhattisgarh, Odisha, Karnataka and Uttar Pradesh.

Similarly, excess fee was also charged from the candidates is some cases, and this incidence was higher in the states of Andhra Pradesh, Gujarat, Karnataka and Uttar Pradesh, as also in the UTs of Chandigarh, Daman & Diu, Nagaland and Puducherry. There is thus a need to develop proper mechanisms to ensure that the training partners do not indulge in corrupt practices like charging of fees from candidates exempted from paying it.

FIGURE 3.4: FINANCIAL SUPPORT TO BPL AND NON-BPL BENEFICIARIES



Source: Survey.

TABLE 3.8: BPL AND NON-BPL BENEFICIARIES REPORTING ABOUT FREESHIPS AND FEES PAID (%)

Sl. No.	States	No Fees		Rs. 125		More than Rs. 125	
		BPL	Non-BPL	BPL	Non-BPL	BPL	Non-BPL
	Category A States						
1.	Andhra Pradesh	86.91	13.09	78.57	21.43	84.00	16.00
2.	Bihar	72.91	27.09	97.91	2.09	66.67	33.33
3.	Gujarat	66.27	33.73	67.11	32.89	80.00	20.00
4.	Karnataka	86.10	13.90	82.83	17.17	83.33	16.67
5.	Madhya Pradesh	71.59	28.41	62.28	37.72	68.67	31.33
6.	Maharashtra	67.85	32.15	51.43	48.57	70.37	29.63
7.	Rajasthan	61.57	38.43	35.67	64.33	39.29	60.71
8.	Tamil Nadu	81.97	18.03	53.33	46.67	45.83	54.17
9.	Uttar Pradesh	86.02	13.98	83.64	16.36	80.49	19.51
10.	West Bengal	48.72	51.28	38.81	61.19	56.82	43.18
	Category B States/UTs						
11.	Chhattisgarh	81.93	18.07	80.49	19.51	80.00	20.00
12.	Delhi	60.05	39.95	57.14	42.86	54.17	45.83
13.	Haryana	39.08	60.92	32.61	67.39	20.69	79.31
14.	Jammu & Kashmir	46.96	53.04	61.90	38.10	42.11	57.89
15.	Jharkhand	58.56	41.44	50.00	50.00	50.00	50.00
16.	Kerala	52.67	47.33	35.48	64.52	42.86	57.14
17.	Odisha	60.73	39.27	83.33	16.67	60.00	40.00
18.	Punjab	72.54	27.46	64.37	35.63	68.18	31.82
19.	Uttarakhand	55.09	44.91	60.71	39.29	64.29	35.71
	Category C States/UTs						
20.	Chandigarh	78.95	21.05	85.71	14.29	100.00	0.00
21.	Daman & Diu	58.38	41.62	0.00	0.00	100.00	0.00
22.	Himachal Pradesh	48.82	51.18	42.86	57.14	57.14	42.86
23.	Manipur	59.40	40.60	33.33	66.67	0.00	100.00
24.	Nagaland	33.33	66.67	100.00	0.00	100.00	0.00
25.	Puducherry	62.11	37.89	66.67	33.33	100.00	0.00
26.	Tripura	53.47	46.53	16.67	83.33	60.00	40.00
	All India	**68.70**	**31.30**	**77.00**	**23.00**	**66.14**	**33.86**

Source: Survey

OVERALL SCENARIO OF BENEFICIARY COVERAGE

Overall, the programme has covered the beneficiaries quite well, particularly the BPL targets. However, the implementation of some more appropriate measures like separate timings for housewives (noon or afternoon), and working people (late evening or weekend slots) could have further increased the coverage. It has also been observed that some more measures are required to adequately cover the SC population. The socio-cultural context of the joint family makes it difficult to evaluate whether one person or more than one person can be trained in an eligible family. As regards financial assistance as well as the other indicators, there are significant regional variations. Hence, an overall composite index has been constructed to determine the standing and achievement levels of the individual states/UTs.

The index, covering the indicators of the target group of NDLM, digital literacy status of the beneficiary family, the trainee benefiting per

FIGURE 3.5: RANKING OF STATES/UTs BASED ON OVERALL PERFORMANCE: COVERAGE OF BENEFICIARIES

Category A States	Tamil Nadu	0.71
	Karnataka	0.70
	Gujarat	0.67
	Maharashtra	0.66
	West Bengal	0.66
	Andhra Pradesh	0.63
	Uttar Pradesh	0.59
	Bihar	0.51
	Rajasthan	0.49
	Madhya Pradesh	0.44
Category B States	Kerala	0.76
	Uttarakhand	0.71
	Odisha	0.64
	Jharkhand	0.62
	Punjab	0.60
	Jammu & Kashmir	0.57
	Haryana	0.53
	Delhi	0.53
	Chhattisgarh	0.52
Category C States	Tripura	0.72
	Chandigarh	0.72
	Puducherry	0.70
	Nagaland	0.64
	Manipur	0.59
	Himachal Pradesh	0.55
	Daman & Diu	0.50
National Average		**0.61**

Source: Computed by the authors.

Notes: The cumulative index includes the target group of NDLM, Digital Literacy Status of the Trainee's Family, Trainee Benefiting per Family, and Financial Support to the Beneficiaries. In the table, the green light indicates 'good performing' states while the yellow and red lights have been used to mark the 'moderate performers' and 'low performing states', respectively.

family and financial support to the beneficiaries, shows a value of 0.61. The states/UTs have been grouped into three categories on the basis of their performance derived from the index value, that is, the 'good, 'moderate' and 'low' performing states/UTs.

Figure 3.5 shows that five states/UTs, categorised as the 'good states' have performed well in reaching out to the target beneficiaries, that is, including Kerala, Tripura, Chandigarh, Tamil Nadu and Uttarakhand. Their performance was commendable in terms of reaching the target beneficiaries, especially in identifying the appropriate families for NDLM training and in targeting women candidates for the programme. In targeting the BPL families, the performance of West Bengal, Tamil Nadu and Karnataka was good. States/UTs that fall in the 'moderate' performing

category include Karnataka, Puducherry, Gujarat, and Maharashtra, among others.

States/UTs such as Madhya Pradesh, Rajasthan, Daman & Diu, Bihar and Chhattisgarh fall in the low performing category, as they lag behind the others in terms of the indicators of 'gender', digital literacy status, and the trainee benefiting per family.

Of all the states in the 'good performing' category, Tamil Nadu belongs to the category A states, Kerala and Uttarakhand belong to the category B states, while Chandigarh and Tripura fall under the category C states. Similarly in the low performing category, Rajasthan, Madhya Pradesh and Bihar belong to the A category states, while Chhattisgarh and Daman & Diu belong to the B and C categories, respectively.

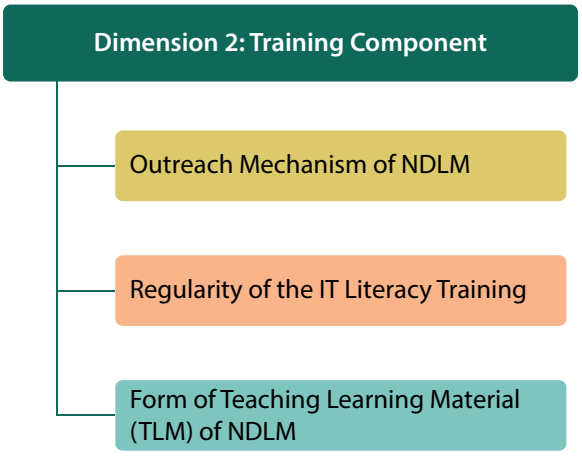
4
Training Component

INTRODUCTION

The components of training that cover critical aspects on the supply side, viz. training design, curriculum and training infrastructure are very important for its successful implementation. A training programme should be designed in such a way that it embraces multiple approaches of teaching, learning and even mobilising the intended target so that the objective of a mission is accomplished. To that effect, this chapter makes an analysis of the training components of NDLM that contribute to setting the platform for its implementation.

While the forthcoming chapter discusses the component of the training infrastructure, this chapter makes a detailed assessment of the training component, which covers indicators such as the outreach mechanism of NDLM training, regularity of IT literacy training, and the form of the Teaching and Learning Material (TLM) of NDLM, which has been presented in Figure 4.1.

FIGURE 4.1: DIMENSION OF TRAINING COMPONENTS



Source: Prepared by the authors.

GROUND REALITIES: TRAINING COMPONENT

The outreach mechanism of NDLM training, its regularity, and the form of NDLM content and material are important components, which, if designed and executed properly, contribute to half the success of the implementation of NDLM. Some states and UTs had taken extensive measures for taking the programme to the people's doorstep, while others lagged behind in their efforts.

The modes of delivery of the TLM of NDLM are important aspects that attract the interest of common citizens, motivating them to participate in such a training programme. All these components have been assessed here and a snapshot of state performance is presented in the following analysis.

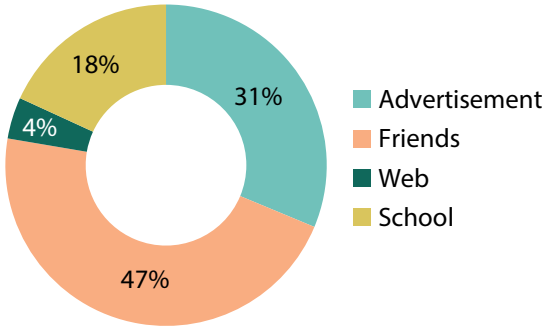
(i) Outreach Mechanism of NDLM

Publicising the programme is considered to be an important aspect of the training component because it is through proper publicity that it can reach the target beneficiaries. In order to assess the publicity for NDLM training, responses

were sought from the trainees on the outreach mechanism and the sources of information for their registration in the programme.

The national picture, as depicted in Figure 4.2, shows that 39.22 per cent of the candidates got to know about the training through friends, and they registered for the programme on the basis of this information. Similarly, 26.44 per cent of the trainees stated that they came to know about the programme through the advertisements released by training centres in the forms of hoardings and banners in public places, and distribution of pamphlets, among other forms of publicity. Another 15.35 per cent of the respondents affirmed that they had obtained information on the programme from schools. While there was no response from 15.46 per cent, only 3.53 per cent of the respondents stated that they got the information online.

FIGURE 4.2: SOURCES OF INFORMATION ON NDLM TRAINING: ALL INDIA (%)



Source: Survey.

TABLE 4.1: SOURCES OF INFORMATION ON NDLM TRAINING (%)

Sl. No.	States	Advertisement	Friends	Web	School	No Response
	Category A States					
1.	Andhra Pradesh	17.75	36.25	3.35	24.05	18.60
2.	Bihar	26.80	60.70	1.90	2.80	7.80
3.	Gujarat	16.80	33.90	4.00	21.80	23.50
4.	Karnataka	33.50	18.50	0.90	9.65	37.45
5.	Madhya Pradesh	29.50	45.90	5.70	6.00	12.90
6.	Maharashtra	27.65	36.30	2.60	22.25	11.20
7.	Rajasthan	56.25	32.95	1.45	2.55	6.80
8.	Tamil Nadu	6.25	24.35	1.00	40.00	28.40
9.	Uttar Pradesh	34.45	49.75	4.45	3.10	8.25
10.	West Bengal	28.65	43.80	3.90	16.80	6.85
	Category B States/UTs					
11.	Chhattisgarh	29.54	41.38	4.80	18.14	6.15
12.	Delhi	23.84	44.53	6.00	7.35	18.29
13.	Haryana	30.88	41.38	5.10	4.95	17.69
14.	Jammu & Kashmir	21.14	49.63	1.80	14.39	13.04
15.	Jharkhand	25.64	45.73	3.45	6.30	18.89
16.	Kerala	5.70	37.33	0.45	38.08	18.44
17.	Odisha	35.38	43.33	6.75	3.30	11.24
18.	Punjab	17.39	25.19	15.44	31.33	10.64
19.	Uttarakhand	29.54	63.12	1.95	1.65	3.75
	Category C States/UTs					
20.	Chandigarh	22.97	15.77	2.70	40.09	18.47
21.	Daman & Diu	30.18	50.45	4.95	7.21	7.21
22.	Himachal Pradesh	10.81	56.76	8.11	2.25	22.07
23.	Manipur	22.97	43.69	1.35	10.81	21.17
24.	Nagaland	8.11	6.76	6.31	63.51	15.32
25.	Puducherry	8.56	30.18	5.41	46.40	9.46
26.	Tripura	19.37	43.69	8.56	15.32	13.06
	All India	**23.83**	**39.28**	**4.32**	**17.70**	**14.87**

Source: Survey.

BOX 4.1: CREATIVE INITIATIVES TO INCREASE OUTREACH OF NDLM IN DIFFERENT VILLAGES

Madhya Pradesh:

- Village Level Entrepreneurs (VLEs) ensured mass advertisement through Nukkad Natak (street theatre) and printing materials.
- VLEs belonging to particular communities were involved in increasing the outreach among those communities.

Telangana:

- VLEs conducted door-to-door visits to convince and motivate the people to undergo NDLM training by carrying laptops to explain the advantages of digital literacy.
- The Village Development Committee chairperson, along with the CSC VLE, conducted awareness camps involving every single eligible household.

Source: Survey.

The influence of friends seemed to be the main reason for registration under NDLM in almost all states, which is visible from the national average of 39.28 per cent (Table 4.1), and this proportion was high in Uttarakhand, Bihar, Himachal Pradesh and Daman & Diu. As far as the state-wise scenario is concerned, more than 13 states attained a figure above the national average of 23.83 per cent in terms of spreading information through advertisements. As reported by the beneficiaries, in Rajasthan, Odisha, Uttar Pradesh, Karnataka and Haryana advertisements in newspapers, television, radio, and other media were the main source through which the students got to know about the training.

Registration through website played a very small role in attracting the students for training as per the survey response, which is reflected in the low national average (4.32 per cent). However, states like Punjab, Tripura, Himachal Pradesh and Odisha were found to be spreading the information on the NDLM training through websites. The influence of schools was higher in Nagaland, Puducherry, Tamil Nadu, Chandigarh and Kerala.

The study illustrated that the success of registration had a significant connection with the outreach measures taken by the training centres and the training partners to spread information about the NDLM training. Wherever the training

BOX 4.2: OUTREACH MEASURES OF TRAINING PARTNERS AND TRAINING CENTRES

Pamphlets Banners Posters Awareness camps Door to door canvassing Workshops in schools Campaigns Meeting in *Gram Panchayat* Meeting with *Mandals* Contacted local leaders Counselling at school level Advertisement in local newspapers Approaching Farmers Club Sending messages	TRAINING PARTNERS TRAINING CENTRES	Banners Posters Seminars Personal calls Workshop in schools Contacting social group Camps in slums Benefit awareness camps

Source: Field Survey with Training Partners and Training Centres.

centres had played a proactive role in promoting the programme and spreading the message of free training in schools, there was a higher rate of registration for the programme.

(ii) Regularity of NDLM Training

Regular training is integral to enhancement of the level of understanding among candidates. Participants of the NDLM training programme were questioned on the regularity component. At the national level, more than 90 per cent of the respondents stated that the training used to take place on a regular basis and only 6.39 per cent of them stated that it was irregular. Only 1.54 per cent of the total respondents did not respond on this component.

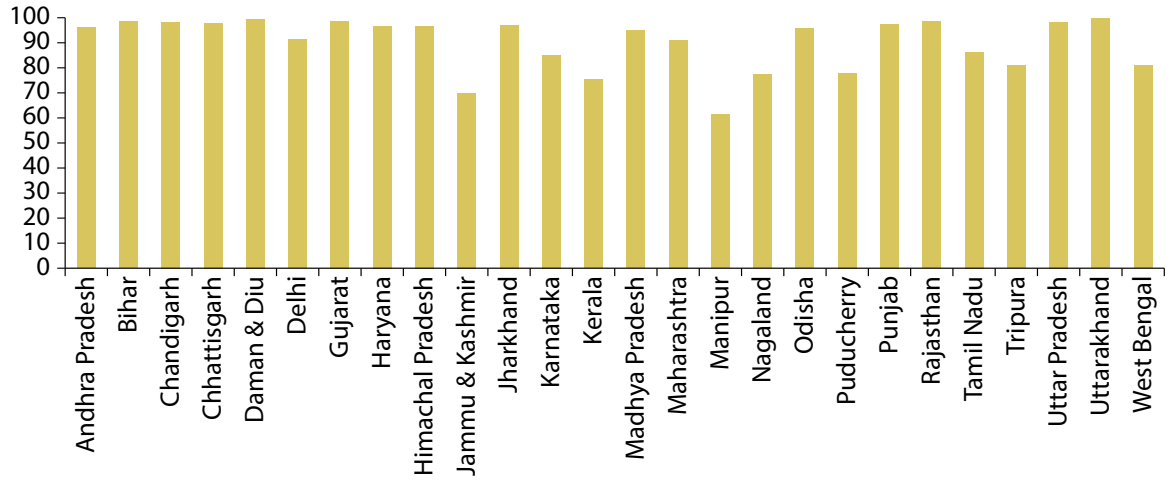
Figure 4.3, which presents the cross-state scenario of the regularity of the NDLM training, indicates that most of the states were successful in maintaining this component. However, irregularity of training was visible in some of the states/UTs, viz. Jammu & Kashmir, Manipur, Kerala, West Bengal, Puducherry and Tripura. Interaction with the training centres revealed that some of the students were irregular in attending the class, and the centres had to take extra measures to motivate the students. It was also observed that hilly areas and conflict zones faced the problem of irregularity of training. Regions with frequent power cuts also faced problems in conducting regular trainings.

(iii) Form of TLM of NDLM

The form of delivery of the course content and material is very important for the success of a training programme. Hence, the TLM was analysed for assessing the NDLM content. The respondents of the survey revealed that videos of the course material were shown in classrooms, which taught the fundamentals of computers. On the whole, 65.24 per cent of the students stated that the course materials were in the form of videos (Table 4.2). Some of them reported that though the videos were interesting to watch, it was difficult to retain the thoughts for long and they were not available when revision of the material was required.

At the national level, about 49.40 per cent of the respondents stated that books were provided by the training centres, with the corresponding proportion crossing 70 per cent in Bihar, Uttarakhand, Chandigarh, Gujarat and Uttar Pradesh. The survey and interaction with the training centres indicated that provision of written materials in book form was not part of the NDLM training. Since they had already run many other computer courses, including the National Skill Development Corporation (NSDC) course on computers, they were able to provide other materials to the students while 35.42 per cent of the respondents stated that they also had access to the e-book. Booklets for the course on Appreciation of Computer Concepts (ACC) were

FIGURE 4.3: RESPONSE OF BENEFICIARIES ON REGULARITY OF NDLM TRAINING (%)



Source: Survey.

TABLE 4.2: FORM OF TEACHING LEARNING MATERIAL (TLM) OF NDLM*

Sl. No.	State/UTs	Audio-Video Mode	Booklets	e-Book	Photocopy
	Category A States				
1.	Andhra Pradesh	65.45	50.65	16.95	19.50
2.	Bihar	84.00	85.15	75.80	66.10
3.	Gujarat	89.00	79.25	57.95	65.15
4.	Karnataka	44.90	32.50	39.20	34.25
5.	Madhya Pradesh	65.95	65.05	59.10	48.25
6.	Maharashtra	73.30	39.55	44.05	32.85
7.	Rajasthan	90.00	62.25	44.85	38.10
8.	Tamil Nadu	24.30	19.05	9.30	29.90
9.	Uttar Pradesh	82.95	70.20	30.45	36.25
10.	West Bengal	23.40	1.80	1.80	28.35
	Category B States/UTs				
11.	Chhattisgarh	79.46	34.93	30.88	32.08
12.	Delhi	73.46	51.42	34.48	20.39
13.	Haryana	84.86	59.07	45.73	33.73
14.	Jammu & Kashmir	61.62	60.72	15.44	49.48
15.	Jharkhand	38.38	10.19	9.60	29.69
16.	Kerala	35.38	59.37	43.33	56.97
17.	Odisha	77.51	55.32	35.83	26.54
18.	Punjab	81.11	31.63	9.45	8.25
19.	Uttarakhand	86.96	83.81	34.18	5.10
	Category C States/UTs				
20.	Chandigarh	73.42	82.43	51.35	40.99
21.	Daman & Diu	98.65	6.31	54.50	32.88
22.	Himachal Pradesh	89.64	43.69	35.59	75.68
23.	Manipur	37.84	19.82	29.28	40.09
24.	Nagaland	19.82	10.36	9.01	35.59
25.	Puducherry	34.23	20.27	10.81	48.65
26.	Tripura	90.99	54.50	10.36	41.44
	All India	**65.24**	**49.40**	**35.42**	**37.82**

Note: *Multiple Responses.
Source: Survey.

provided in e-form to the students by the training centres, though not everyone had access to them, due to the lack of digital devices at home. However, 37.82 per cent of the trainees stated that photocopies of the course material were also made available by the training centres.

Table 4.2 shows that more than 85 per cent of the respondents in Daman & Diu, Gujarat, Himachal Pradesh, Rajasthan, Tripura and Uttarakhand were taught via the audio-video mode. Students from Bihar, Chandigarh and Uttarakhand stated that course materials were given to them in the book form. Among the trained population, about 75 per cent in Bihar and 60 per cent of the respondents in Madhya Pradesh stated that the e-book of the course material was provided by the training centre. On the other hand, the use of photocopies of the material was the maximum in the states of Himachal Pradesh, Bihar and Gujarat.

On the whole, the key point to be observed here is that though e-Books were provided by

the training centres, the students were not able to access them due to the non-availability of computers and Internet facilities at home. With the distribution of photocopies, it was thus easier for them to revise the material, when required. As highlighted by the students of the programme, if teaching learning material is provided in hard copy, it will be very much helpful for the beneficiaries for future references.

OVERALL SCENARIO OF THE TRAINING COMPONENT

Overall, the composite index for this dimension, covering indicators like the outreach mechanism of NDLM, regularity of training, and form of content and material shows an index value of 0.55. The states/UTs have been grouped into three based on the value

FIGURE 4.4: RANKING OF STATES/UTs BASED ON OVERALL PERFORMANCE: TRAINING COMPONENT

Category A States	Bihar	0.79
	Rajasthan	0.72
	Gujarat	0.72
	Uttar Pradesh	0.70
	Madhya Pradesh	0.69
	Maharashtra	0.56
	Andhra Pradesh	0.54
	Karnataka	0.43
	West Bengal	0.35
	Tamil Nadu	0.32
Category B States	Uttarakhand	0.70
	Haryana	0.67
	Odisha	0.66
	Chhattisgarh	0.63
	Punjab	0.59
	Delhi	0.58
	Jharkhand	0.52
	Jammu & Kashmir	0.38
	Kerala	0.37
Category C States	Himachal Pradesh	0.71
	Daman & Diu	0.68
	Chandigarh	0.63
	Tripura	0.52
	Puducherry	0.33
	Nagaland	0.24
	Manipur	0.23
National Average		**0.55**

Note: Cumulative index of this dimension include outreach mechanism of NDLM, regularity of IT Literacy Training, Form of TLM of NDLM. In the table, the green light indicates 'good performing' states while the yellow and red lights have been used to mark the 'moderate performers' and 'low performing states', respectively.

Source: Computed by authors.

obtained as 'good, 'moderate' and 'low' performing states.

Figure 4.4 shows that the performance of Bihar has been particularly high in this dimension. The states/UTs of Rajasthan, Gujarat, Himachal Pradesh, and Uttar Pradesh have performed well in terms of establishing the basic requirements that are required for providing the training. In particular, in spreading the message of NDLM training, Odisha, Uttar Pradesh and Uttarakhand played a vital role. These states were also regular in conducting the training programme. Although the material was not available in book form in these states, a majority of the respondents said that notes and photocopies were supplied by the training centres. All these factors enabled these states to perform well in this dimension.

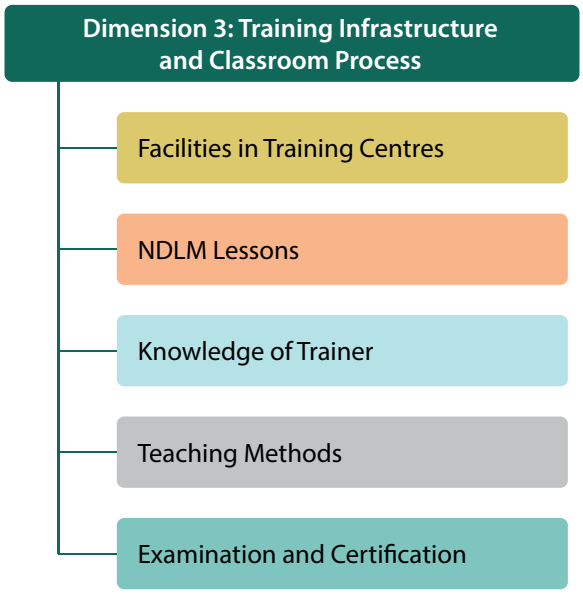
States such as Punjab, Delhi and Maharashtra recorded a moderate performance. All these states have registered an average performance in all the three indicators of this dimension. West Bengal, Puducherry, Tamil Nadu, Nagaland and Manipur fall under the low performing category, and it is thus critical for these states/UTs to devise strategies for better implementation of the next phase of NDLM.

5
Training Infrastructure and Classroom Process

INTRODUCTION

The NDLM programme stipulated certain requirements for the training centres, which are critical for imparting digital literacy training. Therefore, some of the key requirements, including physical facilities and classroom processes in the training centres have been assessed in this evaluation study. This chapter presents the findings of the survey with regard to the dimension on 'Training Infrastructure and Classroom Process'. The findings pertaining to various indicators under this dimension are depicted in Figure 5.1.

FIGURE 5.1: DIMENSION OF TRAINING INFRASTRUCTURE AND CLASSROOM PROCESSES



Source: Prepared by the authors.

(i) Facilities in the Training Centre

The availability of adequate and appropriate physical facilities is important in any digital training programme. Thus, the respondents were questioned on the availability and condition of primary facilities in the training centres, namely computers, Internet connection, and power back-up in case of electricity failure, as well as secondary or supportive facilities like conditions of other equipment such as web cameras, printers and scanners. Given that the computer training programmes are of a short duration, the availability and conditions of basic facilities like toilets and drinking water were not included in the assessment.

The respondents were asked whether these facilities were good, average or low in their respective training centres. Thereafter, in order to translate those micro level responses for the states at a macro level, a 'facilities matrix' was constructed (Table 5.1). The national averages for all the facilities were calculated separately against the 'good', 'moderate' and 'low' indicators. The responses were rated as 'good' if they were above 10 per cent of the national average, 'moderate' if they were 10 per cent above and below the national average, and 'low' if they were below 10 per cent of the national average.

From the matrix, it can be observed that on an average, most of the states have similar conditions of both primary and secondary facilities, except

for a few states like Bihar, Haryana, Jammu and Kashmir, Odisha and West Bengal.

States/UTs like Chhattisgarh, Delhi, Gujarat, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal have good facilities at both the primary and secondary levels. In states/UTs like Andhra Pradesh, Chandigarh and Himachal Pradesh, the essential computer facilities are better than the supportive secondary facilities. However, in the case of Jharkhand and Kerala, a completely opposite picture can be noticed, as here the condition of facilities like web cameras and scanners is better than that of the essential facilities like Internet and power back-up. Further, states like Bihar, Manipur, Nagaland, Odisha, Puducherry and Tripura lack both primary and secondary facilities in their training centres

TABLE 5.1: RESPONSES OF THE BENEFICIARIES ON THE TRAINING INFRASTRUCTURE – MULTIPLE RESPONSES (%)

States	Primary Facilities			Secondary Facilities		
	Computers	Internet Connectivity	Power Back-Up	Printer	Web-Cam	Scanner
Category A States						
Andhra Pradesh	95.20	61.65	60.75	58.35	71.20	57.00
Bihar	67.30	45.36	34.88	41.27	64.32	61.32
Gujarat	94.63	88.12	86.11	84.31	91.44	79.50
Karnataka	82.40	77.70	72.25	62.35	57.25	57.25
Madhya Pradesh	78.61	86.35	71.10	63.21	68.31	61.23
Maharashtra	83.40	77.90	73.95	73.90	60.60	60.60
Rajasthan	93.25	90.85	85.70	82.25	73.60	72.90
Tamil Nadu	74.45	63.90	60.70	61.75	50.50	49.40
Uttar Pradesh	92.30	91.85	91.35	91.20	90.40	89.35
West Bengal	92.15	51.70	61.70	38.95	11.80	17.25
Category B States/UTs						
Chhattisgarh	88.46	86.21	86.66	85.91	85.31	84.71
Delhi	90.10	91.30	85.79	90.40	88.32	83.70
Haryana	74.63	84.31	68.03	51.29	49.63	49.38
Jammu & Kashmir	73.31	37.93	41.68	41.53	25.04	24.89
Jharkhand	86.66	68.22	70.01	75.41	70.01	65.97
Kerala	73.31	68.37	63.12	76.76	68.67	79.16
Odisha	22.19	13.34	15.14	20.69	11.69	11.69
Punjab	93.40	94.75	92.50	90.40	88.91	87.41
Uttarakhand	98.95	99.10	98.05	97.00	97.75	96.25
Category C States/UTs						
Chandigarh	92.79	76.88	79.31	88.12	89.32	86.13
Daman & Diu	87.21	72.51	74.23	74.21	87.21	81.21
Himachal Pradesh	95.05	91.89	45.50	40.54	35.14	27.48
Manipur	57.66	50.45	50.00	54.95	39.64	53.15
Nagaland	66.67	40.09	45.50	62.16	35.14	35.14
Puducherry	65.32	70.27	59.46	59.46	40.09	44.14
Tripura	65.32	39.19	35.14	44.14	17.57	18.47

Good
Moderate
Low

Source: Survey.

whereas in the states of Andhra Pradesh, Bihar, Jharkhand, and Karnataka the conditions of facilities in the training centres can be rated as 'moderate'.

(ii) NDLM Lessons

The NDLM course—Appreciation of Computer Concepts (ACC)—was intended to provide basic knowledge to the trainees for operating different kinds of digital devices, browsing the Internet, communicating with people through the Internet, and using it for day-to-day purposes.

The responses of the trainees clearly show that the lessons taught in the class covered basic computer applications, use of smartphones and tablets, accessing the Internet, and government

TABLE 5.2: RESPONSES OF THE BENEFICIARIES ON THE LESSONS TAUGHT UNDER NDLM - MULTIPLE RESPONSES (%)

States	Basic Computer Application	Use of Mobile/ Smart Phones for Internet Browsing	Use of Tablets for Internet Browsing	Use of Internet	Accessing Online Government Services
Category A States					
Andhra Pradesh	87.25	86.45	84.90	91.25	70.10
Bihar	97.75	96.15	95.80	96.80	85.05
Gujarat	67.95	66.30	65.90	94.15	85.80
Karnataka	79.45	77.40	49.45	75.25	42.95
Madhya Pradesh	93.95	89.80	90.00	90.90	89.35
Maharashtra	84.50	61.70	49.95	52.60	56.20
Rajasthan	69.35	84.80	72.35	67.85	47.75
Tamil Nadu	78.45	80.70	44.95	72.90	19.45
Uttar Pradesh	82.20	79.10	78.00	84.15	70.30
West Bengal	73.35	73.35	4.90	61.80	9.90
Category B States/UTs					
Chhattisgarh	80.66	47.53	46.63	87.41	35.68
Delhi	90.25	84.86	84.56	82.61	80.96
Haryana	97.60	94.15	90.25	79.31	78.11
Jammu & Kashmir	61.17	77.06	63.12	81.56	13.34
Jharkhand	93.40	93.40	30.13	88.91	16.04
Kerala	82.31	79.61	46.93	64.02	35.38
Odisha	92.95	91.75	85.46	81.71	81.11
Punjab	75.41	22.64	17.39	67.77	15.44
Uttarakhand	91.00	84.86	90.25	89.51	38.98
Category C States/UTs					
Chandigarh	97.30	93.24	81.98	98.20	59.46
Daman & Diu	99.55	99.10	99.10	99.55	99.10
Himachal Pradesh	70.27	43.69	43.24	86.49	81.53
Manipur	80.18	75.23	34.68	45.05	29.73
Nagaland	71.17	76.13	26.13	62.61	19.82
Puducherry	85.14	86.94	35.14	65.77	20.72
Tripura	82.43	79.28	3.15	44.14	4.05

Good
Moderate
Low

Source: Survey.

services. A matrix has been developed for the lessons taught under NDLM (Table 5.2), which includes all these components. The micro level responses for particular training centres have been translated into a macro picture at the state level in the same way as discussed above for facilities in the training centres.

Larger state-wise disparities have been found in terms of the lessons provided. In states/UTs like Bihar, Chandigarh, Daman & Diu, Madhya Pradesh Gujarat and Madhya Pradesh, a majority of the respondents stated that all types of lessons, viz. computer applications, usage of tablets, smartphones, accessing government services, and using the Internet were taught in class. As regards the lessons on computer applications, the response of the beneficiaries was moderate in Andhra Pradesh, whereas in Haryana and Odisha, the response on the lessons on Internet usage was moderate. The remaining states presented a mixed picture. However, the common trend was that most of these states laid greater focus on computer training and different usages of the Internet.

On the whole, the respondents expressed satisfaction with the different lessons taught under NDLM. However, most of the respondents in the school- and college-going category stated that it would be more useful for the students if advanced lessons were included in the curriculum. Similarly, the working group requested for a different content that could contribute to career advancement. The students exhibited a preference for programmes like tally, MS Office, and web designing.

TABLE 5.3: TRAINEES' ASSESSMENT OF THE TRAINERS' KNOWLEDGE (%)

Sl. No.	States	Good	Bad	Average
	Category A States			
1.	Andhra Pradesh	89.30	9.05	1.65
2.	Bihar	98.05	1.80	0.15
3.	Gujarat	98.60	1.40	0.00
4.	Karnataka	62.70	33.05	4.25
5.	Madhya Pradesh	85.05	7.30	7.65
6.	Maharashtra	95.45	3.75	0.80
7.	Rajasthan	97.80	2.15	0.05
8.	Tamil Nadu	63.60	32.5	3.90
9.	Uttar Pradesh	96.90	2.55	0.55
10.	West Bengal	73.95	22.80	3.25
	Category B States/UTs			
11.	Chhattisgarh	96.25	3.45	0.30
12.	Delhi	87.86	11.69	0.45
13.	Haryana	95.20	2.55	5.10
14.	Jammu & Kashmir	69.27	25.04	5.70
15.	Jharkhand	76.61	18.89	4.50
16.	Kerala	80.06	13.34	6.60
17.	Odisha	86.06	9.30	4.65
18.	Punjab	98.95	1.05	0.00
19.	Uttarakhand	99.10	0.60	0.30
	Category C States/UTs			
20.	Chandigarh	98.2	0.90	0.90
21.	Daman & Diu	100.00	0.00	0.00
22.	Himachal Pradesh	99.55	0.00	0.45
23.	Manipur	55.41	24.77	19.82
24.	Nagaland	67.57	22.07	10.36
25.	Puducherry	72.07	12.61	15.32
26.	Tripura	81.08	15.32	3.60
	All India	**87.48**	**11.13**	**2.69**

Source: Survey.

(iii) Knowledge of the Trainer

Trainers constitute the soul of any training programme. Therefore, responses were also solicited from the students on the knowledge of the trainers. In most states, the respondents gave positive responses about the knowledge of the trainers, which pointed to the apt selection of the training partners and also that the students were happy with the training being imparted by their trainers.

Almost 100 per cent of the respondents in many of the states averred that the knowledge of trainers on the course content was good (Table 5.3) . This finding is further emphasised by the fact that the national average with regard to the appreciable knowledge of the trainers on the course content is as high as 87 per cent.

(iv) Teaching Methods

Apart from physical facilities and knowledge of the trainer, there is another significant parameter that decides the quality of a training programme, which is a well-balanced combination of effective methods like theory, hands-on-training on digital devices, audio–video learning tools and use of projectors. From the national picture relating to the various teaching methods practised (Table 5.4) it can be observed that various initiatives have been taken to create a well-balanced combination of methods.

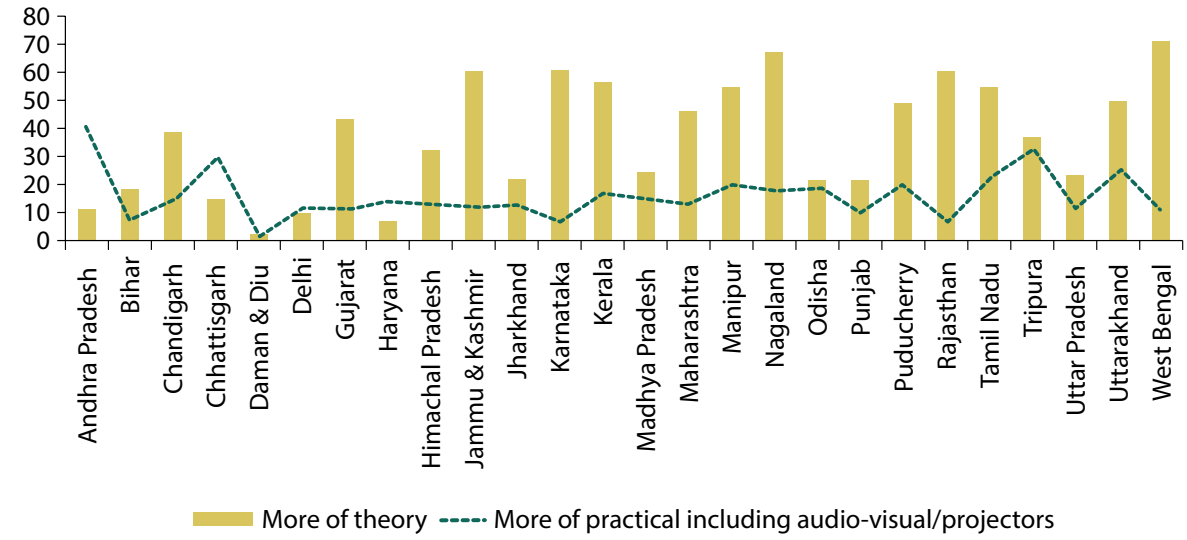
However, an analysis of the different teaching methods throws up state-wise disparities. In states like Andhra Pradesh and Chhattisgarh, emphasis had been laid on practical training

TABLE 5.4: RESPONSES OF THE BENEFICIARIES ON THE TEACHING METHODS PRACTISED (%)

Sl. No.	States/UTs	Theory	Practical by using Devices	Audio-visual/ Projectors
	Category A States			
1.	Andhra Pradesh	11.07	31.23	8.08
2.	Bihar	18.22	4.66	2.63
3.	Gujarat	43.48	8.59	2.58
4.	Karnataka	60.74	4.87	2.21
5.	Madhya Pradesh	24.47	11.23	2.85
6.	Maharashtra	46.20	7.97	5.02
7.	Rajasthan	60.59	4.71	1.69
8.	Tamil Nadu	54.68	12.03	10.22
9.	Uttar Pradesh	23.20	8.28	2.30
10.	West Bengal	71.07	5.02	4.71
	Category B States/UTs			
11.	Chhattisgarh	14.88	26.53	3.37
12.	Delhi	9.63	6.81	4.49
13.	Haryana	7.02	9.01	4.73
14.	Jammu & Kashmir	60.42	8.61	2.72
15.	Jharkhand	21.74	9.90	2.40
16.	Kerala	56.54	8.57	7.97
17.	Odisha	21.52	15.17	2.94
18.	Puducherry	49.09	14.09	5.91
19.	Uttarakhand	49.63	19.79	6.30
	Category C States			
20.	Chandigarh	38.64	10.91	2.73
21.	Daman & Diu	2.26	0.00	1.36
22.	Himachal Pradesh	32.41	8.80	3.70
23.	Manipur	54.75	9.95	9.95
24.	Nagaland	67.27	9.55	7.73
25.	Punjab	21.67	8.94	0.76
26.	Tripura	36.82	22.27	10.00
	All India	**38.75**	**10.52**	**4.27**

Source: Survey.

FIGURE 5.2: RESPONSES OF THE BENEFICIARIES ON THE TEACHING METHODS PRACTISED (%)



Source: Survey.

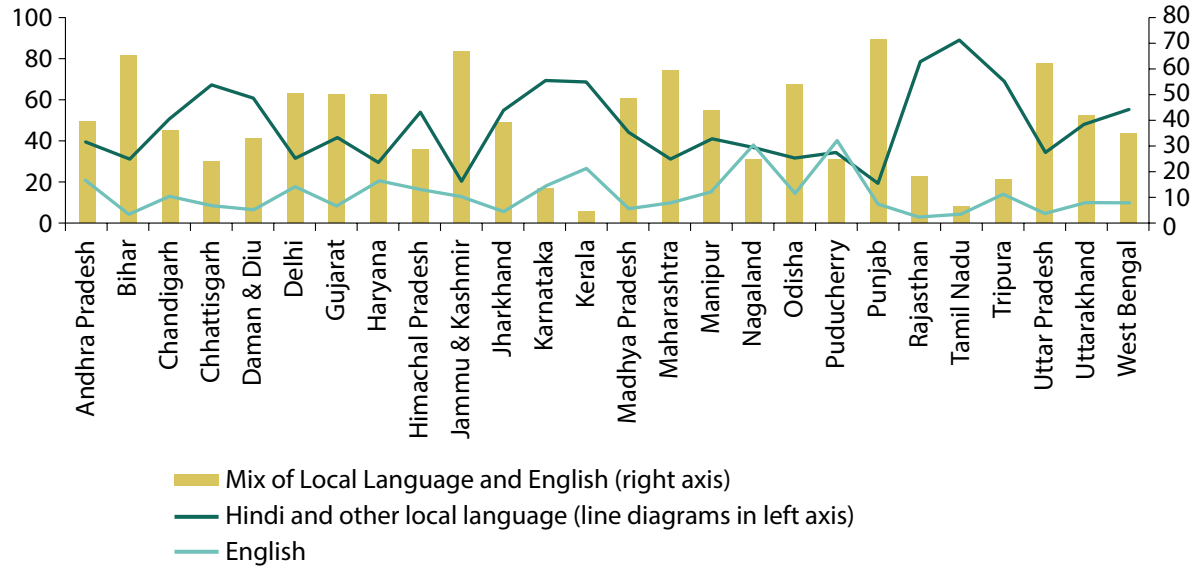
sessions but Nagaland, West Bengal, Karnataka and other states focused on theoretical lessons.

(v) Language

Language plays an important role in any training programme as it is the medium through which a lesson is taught and absorbed to a large extent. In a multi-lingual country like India, which is characterised by the existence of many vernacular languages, the issue of language becomes very critical.

Table 5.5 and Figure 5.3 show that in states like Chhattisgarh, Kerala, Karnataka, Rajasthan, Tamil Nadu and Tripura, the training was mostly conducted in local languages. In other states where English was used as the medium of training, the approach needs to be modified. A mix of English and vernacular languages would be more conducive for better absorption of the course content by the students.

FIGURE 5.3: RESPONSES OF THE BENEFICIARIES ON THE LANGUAGE OF TRAINING (%)



Source: Survey.

TABLE 5.5: RESPONSES OF THE BENEFICIARIES ON THE LANGUAGE OF TRAINING (%)

Sl. No.	States/UTs	Hindi	Local Language	English
	Category A States			
1.	Andhra Pradesh	3.15	36.41	20.72
2.	Bihar	30.23	0.35	4.30
3.	Gujarat	15.44	26.14	8.32
4.	Karnataka	7.43	61.85	17.47
5.	Madhya Pradesh	43.12	1.14	7.37
6.	Maharashtra	15.12	15.54	9.89
7.	Rajasthan	77.39	1.18	3.13
8.	Tamil Nadu	2.32	86.88	4.49
9.	Uttar Pradesh	32.81	0.72	4.55
10.	West Bengal	5.79	49.43	9.93
	Category B States/UTs			
11.	Chhattisgarh	67.33	0.31	8.28
12.	Delhi	31.69	0.00	17.97
13.	Haryana	29.15	0.16	20.53
14.	Jammu & Kashmir	11.79	8.58	13.02
15.	Jharkhand	52.32	2.85	5.70
16.	Kerala	0.45	68.43	26.74
17.	Odisha	8.70	23.10	14.24
18.	Punjab	12.58	6.67	9.39
19.	Uttarakhand	47.38	0.60	10.04
	Category C States/UTs			
20.	Chandigarh	50.45	0.45	13.18
21.	Daman & Diu	53.39	7.24	6.33
22.	Himachal Pradesh	53.99	0.47	16.90
23.	Manipur	3.60	37.39	15.32
24.	Nagaland	1.81	35.29	38.01
25.	Puducherry	5.43	29.41	40.27
26.	Tripura	8.64	60.45	14.09
	All India	**24.58**	**24.54**	**10.75**

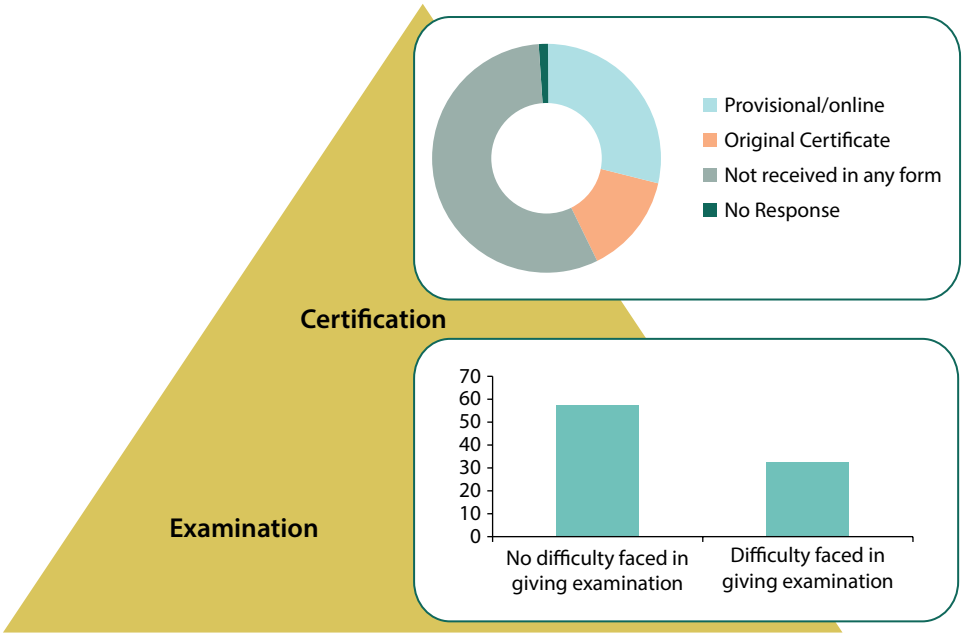
Source: Survey.

(vi) Examination and Certification

Any training programme is incomplete unless the trainees can pass the examination/ evaluation process confidently and receive the acknowledgement of their learning in the form of certificates. During the survey, it was found that nationally 63 per cent of the students faced no difficulty in giving the exam while 37 per cent of the respondents claimed to face multiple difficulties. After completing the training, 43 per cent of the students received certificates and 56 per cent did not receive it in any form, whereas 1 per cent did not respond to this question.

The state-wise scenario presents a diverse picture (Figure 5.5). In terms of difficulties faced in giving the exam, the states can be classified into the following two broad categories: a) most of the states where the respondents hardly faced any difficulties, and b) a few states like Kerala, Karnataka, Tamil Nadu, West Bengal and Maharashtra, where the respondents faced multiple problems while appearing for the exam.

FIGURE 5.4: NATIONAL STATUS OF EXAMINATION AND CERTIFICATION



BOX 5.1: SERVER PROBLEM — A MAJOR CONSTRAINT IN THE NDLM TRAINING

We faced server problems while opening the site for exam.
- Interview with Training Centre, Andhra Pradesh

Servers stopped functioning in the middle of the exams.
- Focus Group Discussion (FGD) with students of NDLM, South-west Delhi

The portal was so slow that we had to wait for more than five hours to complete the online exam.
- Interview with students, Delhi

There is long gap between the date of completion and the date of examination, and we lost interest in giving the exam because of the long waiting period.
- Telephonic Interview with Beneficiaries, Puducherry

Source: Survey.

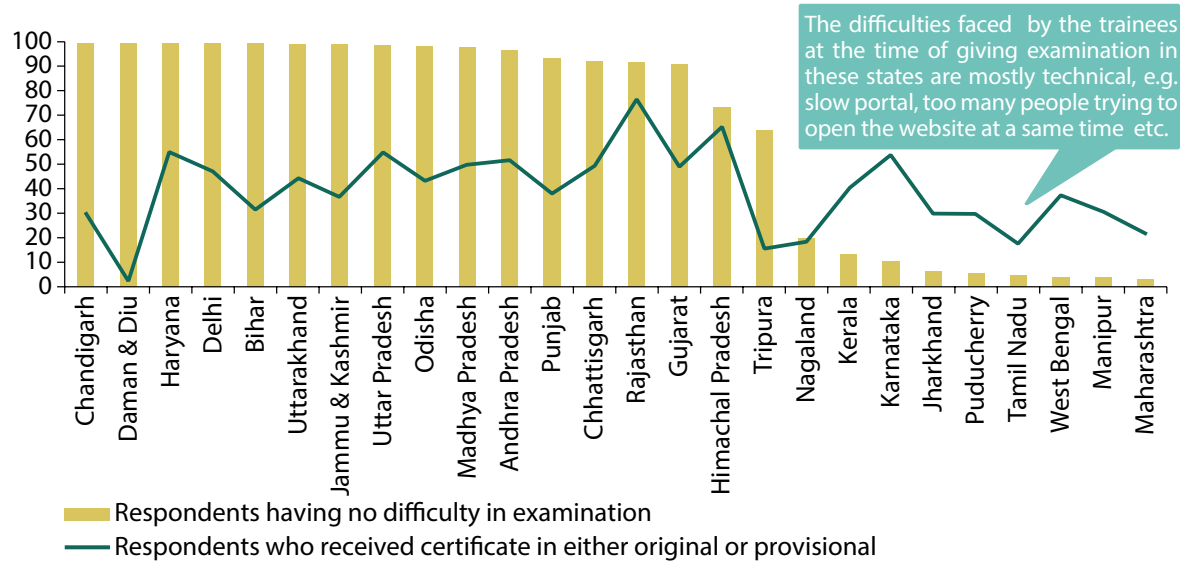
When the respondents were questioned about the reasons for these problems, it was found that the problems were mostly technical, such as slow portals, and too many people trying to open the website at the same time.

The state-wise status of certification was also diverse. For example, in Daman and Diu, candidates did not face any problem in giving the exam, but they did not receive certificates in any form. Similarly, certification emerged as a problem in Tripura too. On the other hand, in states like Kerala, Karnataka and West Bengal, where the examination process was delayed due to technical reasons, the certification process was comparatively better. Rajasthan and Himachal Pradesh are the two states which performed well on both the indicators.

(vii) Overall Scenario of Training Infrastructure and Classroom Process

The findings regarding the above-mentioned indicators under this particular dimension have been combined together to get a composite index. Overall, the composite index for this dimension, covering the indicators of physical infrastructure and classroom processes, shows an index value of 0.55.

FIGURE 5.5: STATE-WISE SCENARIO OF EXAMINATION AND CERTIFICATION



Source: Survey.

Figure 5.6 shows that states/UTs such as Uttarakhand, Uttar Pradesh, Chhattisgarh, and Delhi perform well in this dimension and the training centres in all these states have performed well in terms of providing appreciable physical infrastructure and classroom processes. The responses of the survey participants clearly show that they were mostly happy with the training facilities, lessons taught and the manner of teaching. The states of Himachal Pradesh, Odisha, and Punjab, among others fall under the category of moderate performers. On the other hand, states such as Manipur, Nagaland, West Bengal, and Tamil Nadu have not performed well in this dimension. In most of these states, secondary facilities such as the quality and condition of printers, web-cams and scanners were better than those of the primary facilities like computers and Internet connection. The common issue mostly faced

BOX 5.2: INNOVATIVE MEASURES USED IN THE VILLAGES TO TACKLE INFRASTRUCTURE-RELATED CONSTRAINTS

Telangana

- Most of the villages did not have Internet connectivity. The VLEs thus set up Hotspots using 3g/4G dongle for the Internet.
- In order to accommodate a large number of trainees, different timings were scheduled by forming different groups. In some villages, the classes were scheduled in the morning for students, in the evenings for youth, and in the afternoons for women. Further, in order to accommodate farmers, who are busy throughout the day, even late night classes were conducted during the time slot of 9 p.m. to 11 p.m.

Madhya Pradesh

- VLEs arranged for mobile vans equipped with necessary training infrastructure to organise training programmes in the remote villages.
- Examinations were conducted during early morning or late evening to avoid portal problems.

Source: Survey.

FIGURE 5.6: RANKING OF STATES/UTs BASED ON THE OVERALL PERFORMANCE: TRAINING INFRASTRUCTURE AND CLASSROOM PROCESSES

Category A States	Uttar Pradesh	0.75
	Andhra Pradesh	0.72
	Gujarat	0.70
	Rajasthan	0.69
	Madhya Pradesh	0.68
	Bihar	0.65
	Maharashtra	0.49
	Karnataka	0.39
	Tamil Nadu	0.29
	West Bengal	0.28
Category B States	Uttarakhand	0.76
	Chhattisgarh	0.72
	Delhi	0.72
	Haryana	0.71
	Odisha	0.59
	Punjab	0.53
	Jharkhand	0.49
	Kerala	0.44
	Jammu & Kashmir	0.35
Category C States	Chandigarh	0.71
	Daman & Diu	0.71
	Himachal Pradesh	0.63
	Puducherry	0.46
	Tripura	0.34
	Nagaland	0.24
	Manipur	0.22
National Average		**0.55**

Note: The Cumulative index for this dimension include facilities in the training centre, knowledge of the trainer, teaching methods, examination and certification. In the table, the green light indicates 'good performing' states while the yellow and red lights have been used to mark the 'moderate performers' and 'low performing states', respectively.

Source: Computed by the authors.

across the state is the problem of a slow portal due which caused a delay in the examination and certification processes. Different measures can be adopted to deal with the problem and one common solution can be the conduction of the examination during different time slots for different regions to ensure that the portal does not get frequent hits at the same time.

6
Training Outcome

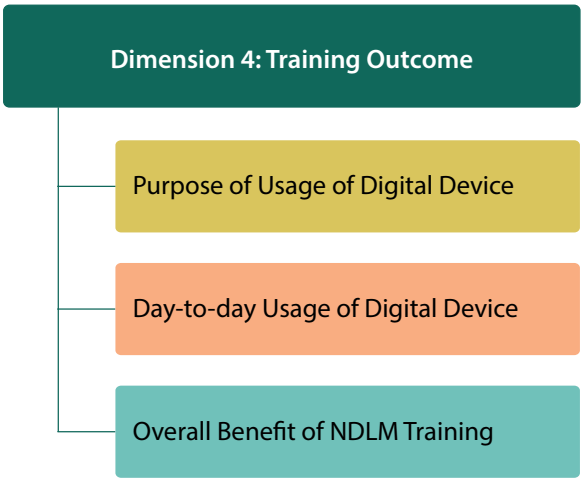
INTRODUCTION

The purpose of the Impact Assessment Study was to determine the overall outcome of this training for the beneficiaries and their lives in terms of knowledge and skill enhancement in the usage of digital devices, which has been covered in this chapter.

GROUND REALITIES: TRAINING OUTCOME

This chapter presents an analysis made on three indicators such as the extent of usage of digital devices by the beneficiaries after completion of the training programme, application of the training in their day-to-day lives, and the overall benefits enjoyed by them.

FIGURE 6.1: DIMENSION OF THE TRAINING OUTCOME



Source: Prepared by the author.

(i) Purpose of Usage of the Digital Device

The IT literacy training can be claimed to be successful only if the trained candidates are able to use digital devices effectively. According to the responses of the trainees, after the completion of the programme, they were able to use different digital devices such as computers/laptops, smartphones, and tablets for one or the other purpose, as depicted in Table 6.1. Most of the respondents were found to be using a device for various purposes such as sending e-mails, browsing the website, checking Facebook, chatting in WhatsApp, playing games, accessing government and other services, and playing games.

On the whole, 63.03 per cent of the respondents who underwent the training, stated that they were able to use the digital device to check and send emails. The response rate for this particular usage was high in the states of Rajasthan, Gujarat, Delhi, Punjab, Kerala and Maharashtra. However, the response was medium in Manipur, Jharkhand, Odisha and Tamil Nadu, as the beneficiaries in these states claimed that they were unable to perform email-related activities mainly due to the lack of availability of computers at home to practise the digital skills they had learnt during the NDLM training. About 60 per cent of the

TABLE 6.1: RESPONSES OF BENEFICIARIES ON PURPOSE OF USAGE OF DIGITAL DEVICE (%)

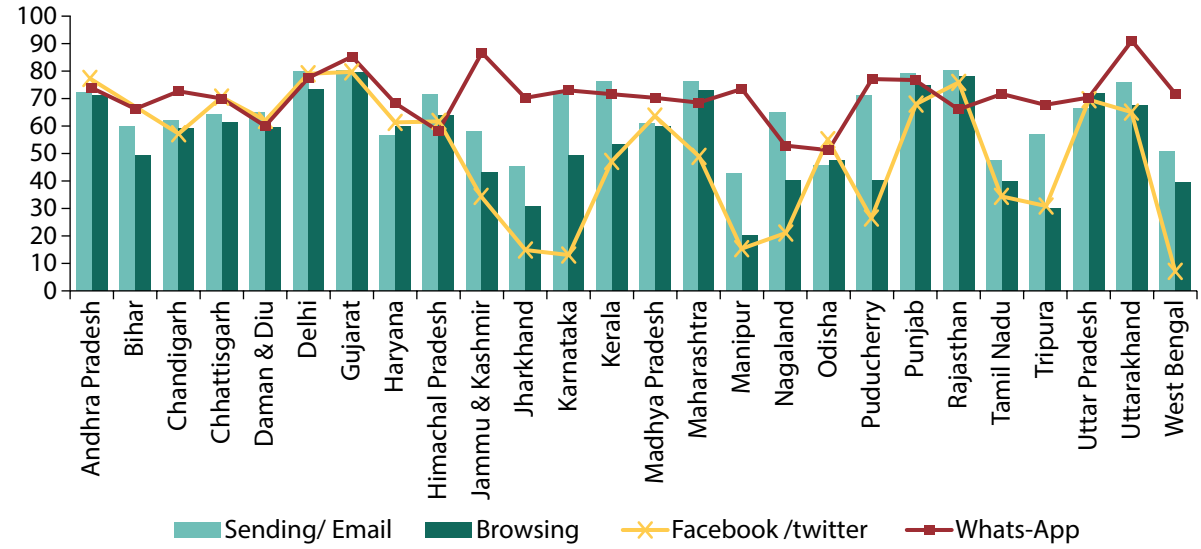
States/UTs	Sending/ Receiving Mail	Browsing	Facebook/ Twitter	Whats-App	Paint	Jobs Search	Availing of Govt. Services	Games
Category A States								
Andhra Pradesh	72.30	71.40	76.50	73.80	67.75	36.15	43.25	50.65
Bihar	59.85	49.35	65.55	66.15	5.55	26.35	17.05	51.05
Gujarat	80.40	79.65	79.70	85.20	65.00	43.50	41.80	58.75
Karnataka	72.30	49.45	12.90	72.95	33.55	23.90	12.90	63.45
Madhya Pradesh	61.10	59.90	63.55	70.20	9.20	47.95	34.35	54.05
Maharashtra	76.20	72.85	49.25	68.45	55.85	24.90	23.35	43.80
Rajasthan	80.45	78.15	75.80	65.95	69.80	34.85	30.00	47.65
Tamil Nadu	47.75	39.70	34.35	71.60	44.35	22.90	27.25	44.45
Uttar Pradesh	66.60	71.90	69.35	70.30	65.70	31.05	24.85	56.80
West Bengal	50.85	39.35	7.80	71.65	17.30	6.90	5.55	6.90
Category B States/UTs								
Chhattisgarh	64.17	61.47	70.01	69.87	67.92	27.29	26.39	61.02
Delhi	80.06	73.31	78.41	77.51	7.65	39.13	39.43	70.76
Haryana	56.52	59.82	61.17	68.22	1.20	42.58	45.13	58.32
Jammu & Kashmir	58.02	43.03	34.03	86.66	52.62	31.93	29.54	56.67
Jharkhand	45.28	30.58	15.14	70.16	35.23	12.74	9.90	31.78
Kerala	76.31	53.37	46.78	71.51	64.02	20.24	10.19	38.83
Odisha	45.54	47.53	54.87	51.12	2.40	19.79	13.94	29.69
Punjab	79.31	74.81	67.77	76.61	57.42	25.19	28.64	38.68
Uttarakhand	75.86	67.32	64.92	91.00	66.27	11.84	6.75	44.98
Category C States/UTs								
Chandigarh	62.16	59.01	57.21	72.52	8.56	37.85	35.14	55.86
Daman & Diu	64.86	59.46	61.26	59.91	6.31	35.14	21.62	36.49
Himachal Pradesh	71.62	63.96	62.16	58.11	57.66	22.07	29.73	37.39
Manipur	42.79	20.27	15.32	73.42	39.19	21.62	20.27	39.64
Nagaland	64.86	40.09	20.72	52.70	38.74	3.60	4.05	44.59
Puducherry	71.17	40.09	26.13	77.03	26.13	10.81	15.32	15.32
Tripura	57.21	30.18	30.18	67.57	44.14	5.41	3.60	40.09
All India	**66.03**	**59.29**	**52.94**	**71.74**	**41.87**	**28.35**	**25.02**	**47.25**

Source: Survey.

students in the surveyed states/UTs said that they were using digital devices for browsing various websites. The proportion of this category of respondents was the highest in Gujarat, Rajasthan, Punjab and Delhi.

The all-India picture is quite interesting in terms of the usage of applications like Facebook and WhatsApp. The usage of WhatsApp is relatively high as compared to any other usage, and the respondents were seen to be using smartphones more for WhatsApp than for any other purpose. Figure 6.2 indicates that the purpose of usage of digital devices varied to a greater extent even in the same state. In Andhra Pradesh, Gujarat, Rajasthan and Uttarakhand, the beneficiaries were found to be using the digital devices for various purposes. However, in Karnataka, the beneficiaries were more interested in using the devices for sending mails, WhatsApp and for browsing, while they elicited considerably less interest in using Facebook and Twitter.

FIGURE 6.2: APPLICATION OF DIGITAL TRAINING: USAGE OF EMAIL, FACEBOOK AND BROWSING

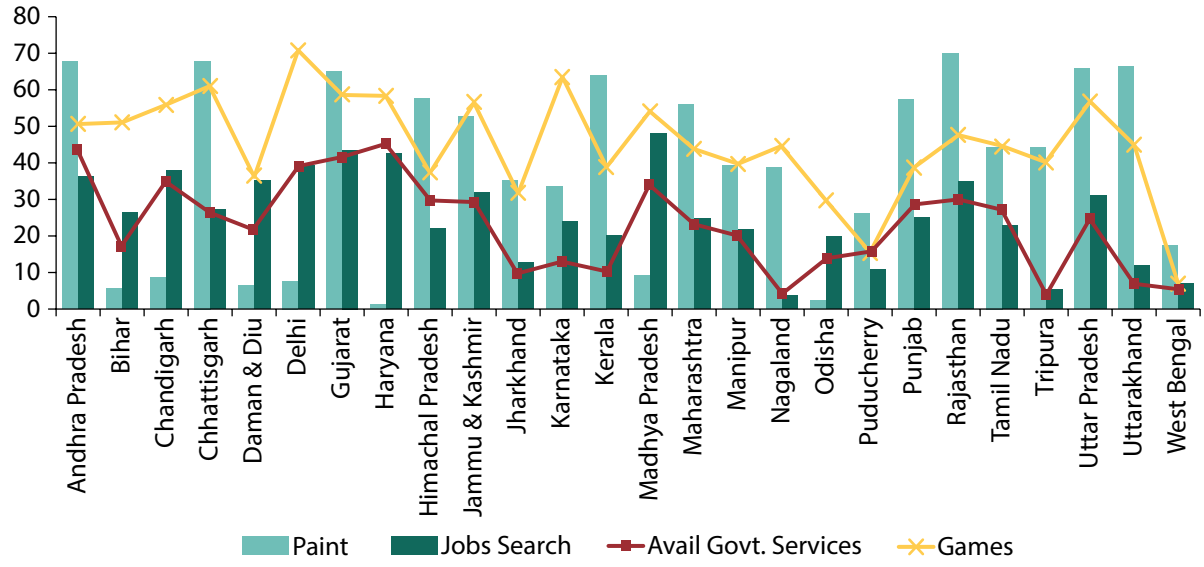


Source: Survey.

Nearly 50 per cent of the trainees also asserted that they use digital devices for playing games while 40 per cent claimed to be using them for the application Paint. While 28.35 per cent of the trainees affirmed that they were using the Internet for job searches, a majority of them, that is, 65.87 per cent averred that they were not using it for this purpose.

Since most of the trainees were in the age group of 14-25 years, their interests mostly lay in using the device for playing games and using the paint application in computers, while less interest was shown in job searches and accessing government services. The proportion of students using the Internet for job searches was high in Madhya Pradesh, Gujarat, Haryana and Delhi. Nearly 30 per cent of the trainees also stated that they were using the Internet for accessing government and other services like booking of railway tickets, and online shopping, and the proportion of such respondents was high in the states of Haryana, Andhra Pradesh, Gujarat, Delhi and Chandigarh.

FIGURE 6.3: APPLICATION OF DIGITAL TRAINING: PAINT, JOB SEARCH, GAMES, AVAILING GOVERNMENT SERVICES



Source: Survey.

(ii) Day-to-day Application of Digital Devices

This section deals with the day-to-day application of digital devices by the beneficiaries. Out of the total number of trainees who responded for the survey, 6.22 per cent did not respond to this question, and 48.07 per cent stated that they were unable to use the applications on a day-to-day basis due to the unavailability of digital devices at home. They also said that since they got the opportunity to use digital devices only occasionally, they could not use them proficiently due to lack of practice.

Regarding the usage of digital devices on a day-to-day basis, Table 6.2 shows that, 29.63 per cent of the respondents, stated that they use it for school/college work, while 8 per cent were found to be using it for official purposes. The survey revealed that the beneficiaries improved significantly in terms of IT knowledge and started using digital devices in schools after the training.

TABLE 6.2: RESPONSES OF THE BENEFICIARIES ON THE DAY-TO-DAY APPLICATIONS OF DIGITAL DEVICES (%)

Sl. No.	States	Doing School/ College Work	Doing Office Work	Not Able to Use/ No Access to Digital Devices	Others
	Category A States				
1.	Andhra Pradesh	48.90	16.70	24.15	8.75
2.	Bihar	86.15	3.30	4.35	4.80
3.	Gujarat	43.50	8.05	28.70	6.70
4.	Karnataka	7.25	4.45	65.10	22.90
5.	Madhya Pradesh	41.70	19.9	14.15	10.60
6.	Maharashtra	11.75	9.45	68.10	7.90
7.	Rajasthan	33.30	5.30	27.00	2.80
8.	Tamil Nadu	6.10	6.05	75.65	11.05
9.	Uttar Pradesh	29.70	5.25	58.20	4.85
10.	West Bengal	4.45	2.25	85.60	4.45
	Category B States/UTs				
11.	Chhattisgarh	14.99	9.75	59.07	12.44
12.	Delhi	42.73	14.69	24.89	8.40
13.	Haryana	39.58	22.94	27.44	6.15
14.	Jammu & Kashmir	18.29	4.80	67.02	8.10
15.	Jharkhand	7.35	2.10	78.86	11.09
16.	Kerala	2.85	3.15	90.10	2.70
17.	Odisha	35.08	4.80	34.93	11.54
18.	Punjab	34.03	8.55	51.57	3.30
19.	Uttarakhand	13.34	5.10	67.47	10.34
	Category C States/UTs				
20.	Chandigarh	95.95	0.90	0.90	0.00
21.	Daman & Diu	84.68	11.26	3.60	0.00
22.	Himachal Pradesh	14.86	10.36	68.47	3.60
23.	Manipur	14.86	3.60	79.28	1.80
24.	Nagaland	15.32	5.41	69.82	4.05
25.	Puducherry	3.60	1.80	92.79	0.90
26.	Tripura	5.41	4.95	82.43	5.41
	All India	**29.63**	**8.00**	**48.07**	**8.07**

Source: Survey.

BOX 6.1: APPLICATION OF DIGITAL DEVICES IN EVERYDAY LIFE IN THE VILLAGES OF TELANGANA

Akoli Village:

Akoli village serves as a model village, where there is 100 per cent digital literacy. Innovative outreach measures and household surveys helped identify the potential trainee per family. Training programmes in the village were customised to suit the needs of different stakeholders, viz., students, housewives and farmers. Trainees are not only theoretically aware of the advantages of the computer and Internet but have also started applying digital devices in day-to-day life. For instance, the trainees form part of a WhatsApp group created by the training centre. Career or farming-related information is shared in the group and more than 70 members are very active in this group.

Mukhra Village:

Like Akoli, Mukhra has also achieved 100 per cent digital literacy. Moreover, every villager in Mukhra has opened Jan Dhan bank accounts, and 100 per cent of the farmers are registered for MKisan, a portal they use for crop advisories on a regular basis. Village youth are active on the Facebook page and the WhatsApp group, not only for the socialisation process but also for using it as platform for sharing useful information.

Source: Survey.

It can also be seen from Table 6.2 that the states of Bihar and Andhra Pradesh top the list in terms of the use of digital devices for school work, while a relatively high proportion of trainees from Haryana, Madhya Pradesh, Andhra Pradesh, and Delhi use the devices for office work.

A housewife from Andhra Pradesh pointed out that she uses digital devices for helping her children with their homework and project work. She said that she had started browsing the website to find information related to school assignments as that way she would be better able to guide her children. Similarly a farmer stated that he had started using digital devices to check the agricultural market price. On the whole, therefore, it was observed that the beneficiaries were able to use the digital devices for a variety of purposes based on their requirements.

(iii) Overall Benefit of the NDLM Training

This indicator under the dimension of training outcomes highlights the benefits of the NDLM training for the beneficiaries in terms of improvement in confidence levels, knowledge and awareness. Apart from these aspects, the outcome of the training was also assessed in terms of the other benefits generated by it such as getting jobs, promotions, and increase in incomes. The

BOX 6.2: TRAINING OUTCOME: PERCEPTION OF TRAINING PARTNERS AND TRAINING CENTRES

Source: Field survey with training partners and training centres.

TABLE 6.3: RESPONSES OF THE BENEFICIARIES ON THE OVERALL BENEFITS OF NDLM TRAINING (%)

Sl. No.	States/UTs	Improved General Awareness	Improved My ICT Knowledge	Increased My Confidence Level	Got a Job	Got Promotion in Job	Got More Income	Able to Teach Others on Computer Application
	Category A States							
1.	Andhra Pradesh	91.65	83.45	77.45	30.30	16.4	15.70	40.60
2.	Bihar	66.55	69.35	69.70	18.20	9.75	5.05	40.70
3.	Gujarat	78.75	82.85	78.50	22.90	20.50	20.55	38.90
4.	Karnataka	57.45	67.40	63.55	3.450	2.20	1.95	11.10
5.	Madhya Pradesh	61.20	61.05	55.10	10.65	2.35	1.10	50.55
6.	Maharashtra	72.30	67.85	45.05	2.80	2.25	1.75	7.80
7.	Rajasthan	70.85	69.20	61.35	14.40	12.65	11.80	33.60
8.	Tamil Nadu	49.85	49.85	36.65	2.70	1.10	1.40	2.10
9.	Uttar Pradesh	74.40	63.45	53.85	9.75	7.60	8.45	24.60
10.	West Bengal	32.70	34.90	21.65	2.85	1.95	1.15	2.05
	Category B States/UTs							
11.	Chhattisgarh	68.52	56.22	44.53	5.25	2.85	3.60	14.39
12.	Delhi	74.66	73.01	74.81	16.19	13.34	13.64	58.32
13.	Haryana	59.52	57.57	49.63	7.20	4.20	3.60	44.23
14.	Jammu & Kashmir	28.04	40.63	25.34	2.85	0.90	1.35	10.19
15.	Jharkhand	63.27	68.52	23.69	7.35	3.45	2.40	2.70
16.	Kerala	55.32	54.72	57.57	1.20	0.60	0.90	6.75
17.	Odisha	49.93	52.32	34.03	4.05	1.95	2.85	47.68
18.	Punjab	72.11	63.87	50.67	5.70	3.45	4.95	17.39
19.	Uttarakhand	68.37	62.52	95.80	2.70	1.80	1.20	10.04
	Category C States/UTs							
20.	Chandigarh	71.17	72.52	77.93	6.31	2.70	4.05	56.31
21.	Daman & Diu	72.52	63.51	68.02	0.00	0.90	0.45	48.65
22.	Himachal Pradesh	54.95	57.66	42.34	2.70	0.90	0.90	1.35
23.	Manipur	43.69	71.17	55.41	1.35	0.90	0.90	15.32
24.	Nagaland	44.14	65.32	44.14	3.60	2.25	2.25	8.11
25.	Puducherry	63.96	77.48	45.95	2.70	1.35	0.90	20.27
26.	Tripura	70.72	39.19	39.19	0.00	0.00	0.00	15.32
	All India	**64.05**	**63.54**	**54.89**	**9.97**	**6.43**	**5.91**	**24.75**

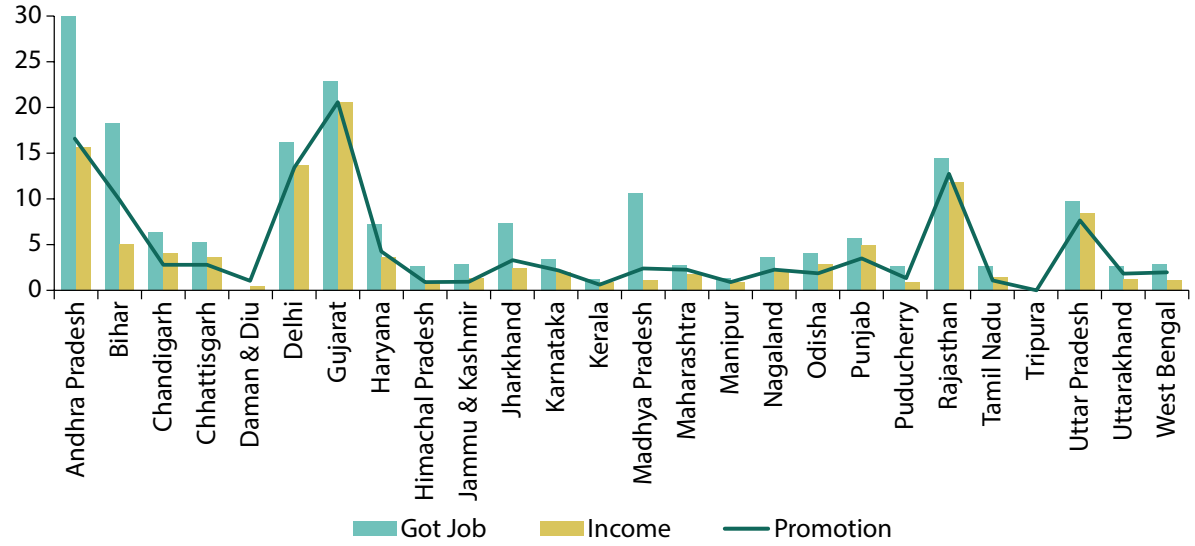
Source: Survey.

responses of some of the candidates clearly show that the beneficiaries were able to realise higher benefits in their personal and professional lives after attending the training.

The survey results as depicted in Table 6.3 show that about 60 per cent of the respondents at the national level reported improvements in general awareness, ICT knowledge and confidence levels.

The trainees reported that the NDLM training was beneficial to them as they were able to learn something new, which is necessary for everyday life. Out of the total candidates trained,

FIGURE 6.4: OVERALL BENEFITS OF NDLM TRAINING (LIVELIHOOD BASED)



Source: Survey.

63.54 per cent felt that the NDLM training helped them enhance their knowledge. The proportion of trainees who claimed to have augmented their knowledge with the help of the training was high in Andhra Pradesh, Gujarat, Puducherry, and Delhi, among other states/UTs. About 50 per cent of the respondents stated that the IT literacy training had boosted confidence levels while 24.75 per cent of them affirmed that they were also able to teach their family members to use digital devices after attending the programme. More than 90 per cent of the respondents in Himachal Pradesh, West Bengal, Tamil Nadu, Jharkhand, Kerala, Maharashtra and Nagaland revealed that they could not engage in teaching, as they were neither so familiar with nor well-versed in the usage of digital devices to be able to teach other family members at home.

Though providing job opportunities or income generation was not the main objective of NDLM, Figure 6.4 shows that some of the trainees benefited from this training in terms of livelihood opportunities. In Andhra Pradesh, Gujarat and Delhi, more than 15 per cent of the respondents said that they were able to get jobs after attending the training.

Again in Gujarat, Delhi and Rajasthan, some of the respondents informed that they had managed to increase their incomes after undergoing the training. In Gujarat, Rajasthan and Uttar Pradesh, some beneficiaries also stated that they had succeeded in getting promotions at work after acquiring digital literacy.

(iv) Overall Scenario of Training Outcome

Overall, the composite index for this dimension shows an index value of 0.41. On the basis of the index value obtained, the states/UTs have been grouped into three categories: good, moderate, and low performing states.

Under the dimension of Training Outcome, some states/UTs like Andhra Pradesh, Delhi, and Chandigarh performed better than the other states and UTs. On the other hand, states/UTs like Chandigarh, Madhya Pradesh, and Rajasthan fall in the category of moderate performance whereas West Bengal, Tripura, and Jharkhand registered a low performance with regard to this dimension. The responses of the trainees in these states indicate that the respondents were not using the digital device much on a day-to-day basis.

(v) Overall Assessment

The analysis undertaken on various dimensions in the previous chapters thus throws light on the extent of implementation of the NDLM training

BOX 6.3: CASE STUDIES ON OVERALL BENEFITS OF NDLM FOR THE BENEFICIARIES

Case Study 1: Job opportunity after NDLM training in New Delhi

Anita, a 21-year old girl from Neb Sarai, New Delhi, said that she was able to get a job in the training centre where she was provided the training. Although she had a B.Pharm degree, she could not opt for computer training classes due to her family background. She thus enrolled herself for the NDLM training, when she got to know of the free training for non-IT literates. After completing the training, she was recruited by the training partner to take care of the maintenance of the training centre. She stated that this training provided her the opportunity to realise her interests in digital technologies and later she registered herself for a web designing course to acquire another skill. Currently Anita has been absorbed as a trainer in the same centre.

Case Study 2: Improvement in confidence for a locomotive disabled women, Tamil Nadu

From a rural village of Virudhunagar district, Amudha, a 34-year old locomotive disabled woman revealed that she enrolled in the training after being motivated by her friends who suggested that this government certified programme would bring job opportunities. After undertaking the basic training under NDLM, she enrolled herself for advanced programmes in computers and is now confident of getting a job.

Case Study 3: Democratic participation of a shepherd in Telangana

A shepherd from Gimma village in the Jainath block of Adilabad district, after undertaking the NDLM training, started using a smartphone and has been an active user of WhatsApp. He took a picture of a damaged road of his locality and uploaded the photograph in the 'WhatsApp group on Grievance Redressal' of a local newspaper. Three days after the photo got published in the newspaper, road repair activities were initiated and the road was repaired in a day. The boy thus expressed his happiness for making his contribution in a small way towards the betterment of his locality.

Road After

Road Before

Source: Survey.

in different states/UTs and the impact on the beneficiaries. It was observed that no state or UT was constantly at the top or bottom in all the indicators. Some of the states/UTs performed better in implementing the designed formats of the programme while others showed efficiency in installing the required logistics for providing the training. Despite their low performance in terms of training component and infrastructure, several states were able to ensure a better impact on the overall outcome. For instance, in Madhya Pradesh, quiz competitions and rapid tests were conducted among students on emailing content and sending information on WhatsApp, and the student, who was able to do it at a faster pace was rewarded with a tablet. On the other hand, in Andhra Pradesh, a WhatsApp group was created with the students, wherein information related to their village or job or education opportunities were shared. Such innovative measures initiated by different states contributed to a strong overall impact on the beneficiaries.

FIGURE 6.5: RANKING OF STATES/UTs BASED ON THE OVERALL PERFORMANCE: TRAINING OUTCOME

Category A States	Andhra Pradesh	0.78
	Madhya Pradesh	0.61
	Rajasthan	0.60
	Bihar	0.58
	Gujarat	0.53
	Uttar Pradesh	0.48
	Maharashtra	0.39
	Karnataka	0.31
	Tamil Nadu	0.24
	West Bengal	0.10
Category B States	Delhi	0.73
	Haryana	0.59
	Punjab	0.50
	Chhattisgarh	0.41
	Uttarakhand	0.40
	Odisha	0.33
	Jammu & Kashmir	0.28
	Kerala	0.26
	Jharkhand	0.19
Category C States	Chandigarh	0.62
	Daman & Diu	0.58
	Himachal Pradesh	0.35
	Puducherry	0.25
	Manipur	0.22
	Nagaland	0.21
	Tripura	0.17
National Average		**0.41**

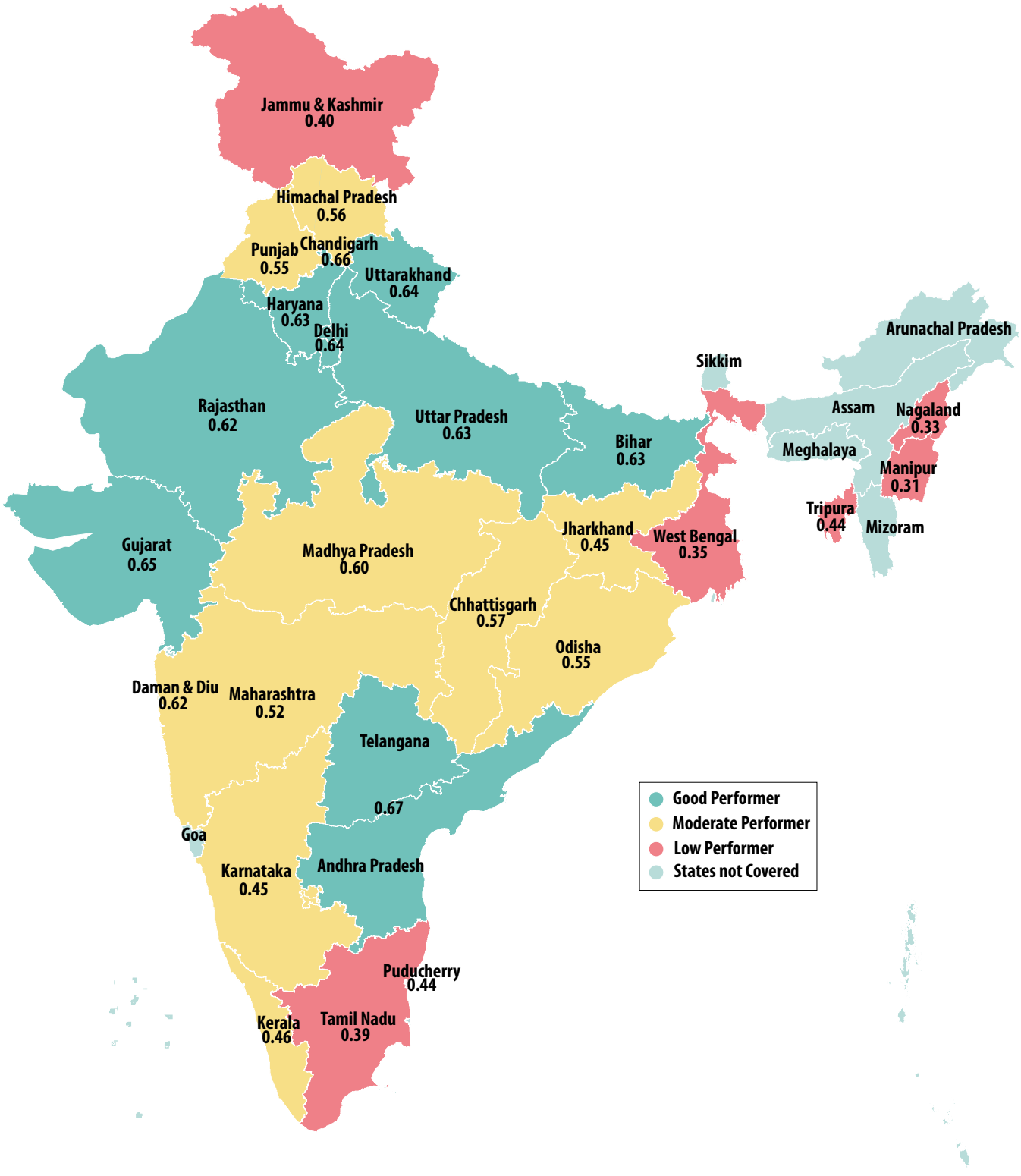
Note: The cumulative index for this dimension include: purpose of usage of digital devices, day-to-day usage of digital devices and overall benefit of training to beneficiaries. In the table, the green light indicates 'good performing' states while the yellow and red lights have been used to mark the 'moderate performers' and 'low performing states', respectively.

Source: Computed by authors.

Overall, the performances of various states with regard to most of the indicators were good. However, gaps were identified in certain areas and corrective measures on those aspects will help in enhancing the work to be undertaken in the next phase of the NDLM, as discussed in the concluding chapter.

Digital Literacy Index

State wise Map of Digital Literacy Status



Map may not be accurate to scale. These are mere representations;
States are shaded based on index value.

7

Enhancing the Next Phase of Digital Literacy Mission

INTRODUCTION

The preceding chapters analysed the various aspects of NDLM training provided to citizens across the country, viz. the chief beneficiaries of the training programme, the components of training, the training outreach mechanism, regularity of training, the content of the training, facilities of the training centre, and the lessons taught, as also and the outcome of the NDLM training. The chapters outlined the impact of the intervention across the states and Union Territories, in varying degrees in different states. Even in the same state/UTs, the performance of the states was good, moderate or low on different indicators.

This chapter presents a cross-country scenario on the overall effect of the training and highlights the states registering good, moderate and low performances. This chapter highlights the gaps in the design and implementation of the training programme on the basis of this assessment, and provides suggestions and recommendations for improving outcomes in the next phase of the digital literacy training.

OVERALL IMPACT OF NDLM TRAINING

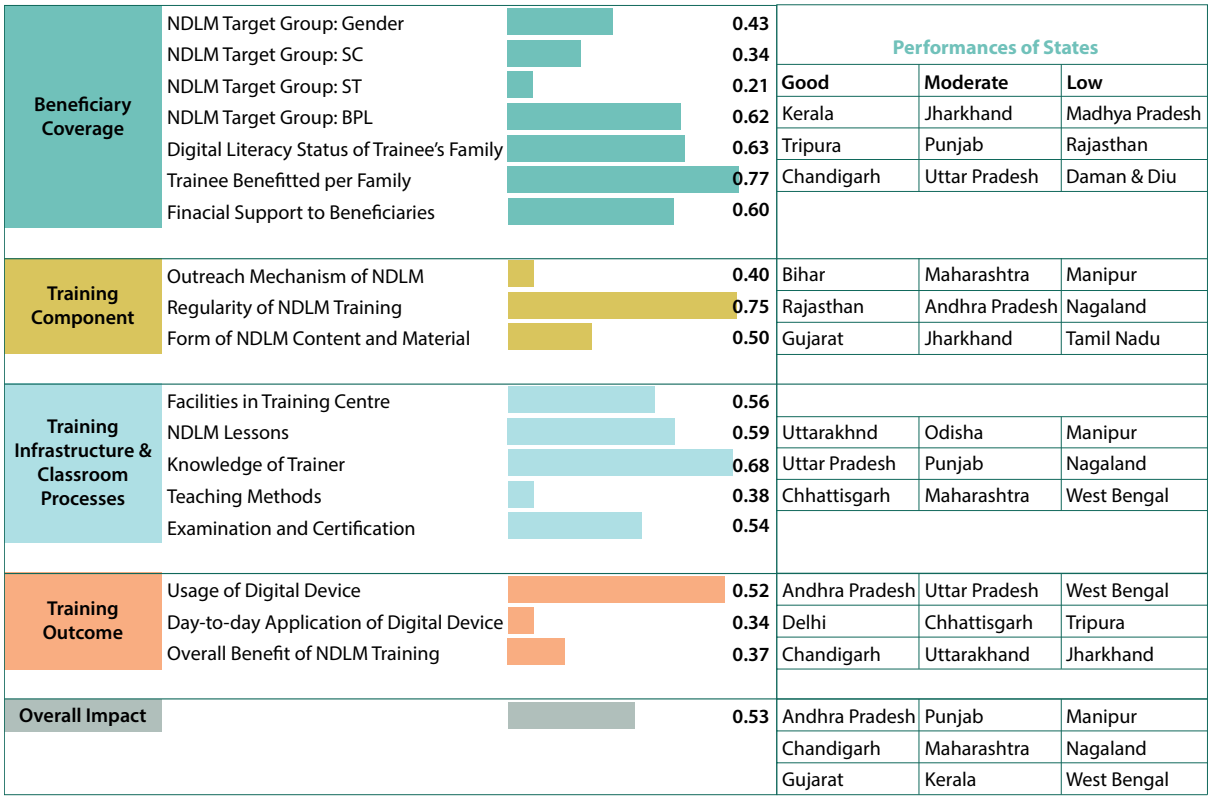
The study found positive impacts of the NDLM in varying degrees in different states/UTs. The performance of each state varied from 'good', 'moderate' to 'low' in terms of different indicators. The key findings of this study are presented below.

Figure 7.1 and Table 7.1 present a composite index of the overall impact of the NDLM training across different dimensions and indicators on a scale of 0 to 1. Overall, it can be observed that the performance at the national level was positive, with an index value of 0.53. The states/UTs of Andhra Pradesh, Chandigarh and Gujarat appear in the category of 'good' performers in terms of the overall impact of the NDLM. On the other hand, Punjab, Maharashtra and Kerala are moderate performers, while Manipur, Nagaland and West Bengal rank low on the performance scale in terms of the overall impact.

Andhra Pradesh, which tops the list, has good performances in two of the dimensions, viz., training infrastructure and classroom processes, and the training outcome. In Andhra Pradesh, 86 per cent of the respondents stated that the NDLM training had contributed to increasing their knowledge and awareness, and in building their confidence.

Although Kerala, Karnataka, Tamil Nadu and West Bengal are the states with better human, social and economic development, their performance seems to be moderate or low in terms of NDLM training due to various reasons. For instance, the state government of Kerala did not show any interest in implementing NDLM in the beginning. It was only at a later stage that the implementation of NDLM was initiated by

FIGURE 7.1: OVERALL IMPACT OF NDLM TRAINING



Source: Computed by authors.

the Common Service Centres (CSCs) of Kerala. However West Bengal, Tamil Nadu and Karnataka performed well in targeting BPL families. Further, strong outreach measures were not initiated in these states to publicise about the NDLM training. According to the perception of the beneficiaries, the infrastructure and training components such as regularity and the form in which the NDLM content and materials were available, were not up to the mark in these states. All these aspects also impacted the training outcome.

The key findings with respect to the dimensions and indicators are detailed below.

(i) Beneficiary Coverage

In terms of meeting the targeted group under NDLM, the programme had attained its objectives by adhering to the norms and standards fixed for catering to the different sections of the society to whom the IT training was meant for. However, there are certain outliers, in terms of both good and low performances. The good practices of the best performing states can be replicated in the low- performing states to enable the latter to take corrective actions. The key findings on specific indicators are as follows:

- *Gender:* NDLM gives adequate representation to women candidates for the digital literacy training. Although at the national level, 39 per cent of the target beneficiaries were women, the representation was low in some states. Target-specific interventions are thus needed to increase the enrolment of women in the low-performing states.
- *Age:* The programme reaches out to people in the age group of 14 to 60 years. However, in most of the states/UTs, senior citizens above the age of 60 years had shown an interest in pursuing the digital literacy training and some of the senior citizens were also found to be active users. For instance, one of the senior citizens was found to be making Skype calls to Dubai to talk to her son. More than 80 per cent of

TABLE 7.1: OVERALL PERFORMANCE OF STATES/UTs ON DIMENSIONS AND INDICATORS

States	Beneficiary Coverage				Training Component			Training Infrastructure & Classroom Processes					Training Outcome			Overall Index Value
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Andhra Pradesh	0.47	0.81	0.86	0.51	0.32	0.91	0.39	0.57	0.78	0.76	0.71	0.76	0.82	0.65	0.86	0.67
Chandigarh	0.47	0.82	0.82	0.74	0.22	0.96	0.71	0.81	0.85	0.96	0.37	0.58	0.66	0.67	0.53	0.66
Gujarat	0.41	0.75	0.76	0.71	0.31	0.98	0.85	0.85	0.63	0.97	0.32	0.72	0.25	0.49	0.85	0.65
Uttarakhand	0.33	0.93	0.98	0.67	0.52	1.00	0.57	1.00	0.74	0.98	0.37	0.70	0.63	0.19	0.37	0.64
Delhi	0.32	0.91	0.32	0.55	0.47	0.79	0.48	0.85	0.78	0.73	0.50	0.74	0.87	0.60	0.73	0.64
Bihar	0.48	0.80	0.00	0.64	0.49	0.97	0.92	0.30	0.94	0.96	0.44	0.59	0.50	0.66	0.57	0.63
Uttar Pradesh	0.37	0.68	0.60	0.66	0.53	0.96	0.61	0.89	0.70	0.93	0.45	0.80	0.67	0.29	0.47	0.63
Haryana	0.23	0.92	0.53	0.49	0.47	0.92	0.63	0.48	0.84	0.89	0.54	0.80	0.69	0.70	0.39	0.63
Rajasthan	0.45	0.00	0.77	0.63	0.51	0.97	0.67	0.79	0.53	0.95	0.18	0.97	0.78	0.41	0.59	0.62
Daman & Diu	0.41	0.53	0.04	0.75	0.52	1.00	0.54	0.72	1.00	1.00	0.50	0.33	0.57	0.77	0.40	0.62
Madhya Pradesh	0.45	0.83	0.36	0.28	0.51	0.87	0.68	0.60	0.88	0.66	0.46	0.79	0.70	0.71	0.41	0.60
Chhattisgarh	0.51	0.65	0.49	0.47	0.46	0.95	0.48	0.82	0.48	0.92	0.67	0.73	0.62	0.30	0.30	0.57
Himachal Pradesh	0.39	0.66	0.55	0.57	0.50	0.93	0.71	0.43	0.50	0.99	0.39	0.82	0.59	0.27	0.19	0.56
Odisha	0.34	0.93	0.47	0.73	0.55	0.89	0.53	0.22	0.82	0.69	0.52	0.70	0.32	0.38	0.29	0.55
Punjab	0.50	0.34	1.00	0.57	0.52	0.94	0.32	0.90	0.21	0.98	0.32	0.25	0.75	0.38	0.37	0.55
Maharashtra	0.40	0.90	0.61	0.71	0.37	0.78	0.52	0.62	0.46	0.90	0.28	0.17	0.63	0.25	0.30	0.52
Kerala	0.44	1.00	0.94	0.71	0.18	0.36	0.55	0.59	0.49	0.55	0.21	0.38	0.51	0.04	0.22	0.46
Karnataka	0.54	0.81	0.91	0.62	0.26	0.62	0.40	0.57	0.53	0.16	0.18	0.49	0.43	0.17	0.31	0.45
Jharkhand	0.25	0.85	0.62	0.69	0.43	0.93	0.20	0.63	0.60	0.48	0.47	0.26	0.21	0.08	0.26	0.45
Tripura	0.38	0.92	1.00	0.66	0.49	0.52	0.54	0.11	0.26	0.58	0.45	0.33	0.23	0.11	0.18	0.44
Puducherry	0.31	0.91	0.81	0.73	0.27	0.43	0.29	0.38	0.47	0.37	0.47	0.63	0.41	0.02	0.33	0.44
Jammu & Kashmir	0.19	0.74	0.69	0.62	0.39	0.23	0.51	0.17	0.42	0.31	0.22	0.64	0.56	0.21	0.08	0.40
Tamil Nadu	0.59	0.91	0.65	0.71	0.12	0.66	0.18	0.44	0.47	0.18	0.24	0.14	0.40	0.15	0.15	0.39
West Bengal	0.31	0.80	0.91	0.64	0.45	0.51	0.09	0.28	0.28	0.42	0.10	0.32	0.21	0.05	0.05	0.35
Nagaland	0.49	0.84	0.39	0.73	0.15	0.42	0.16	0.25	0.34	0.27	0.15	0.19	0.20	0.20	0.23	0.33
Manipur	0.41	0.89	0.26	0.69	0.35	0.00	0.33	0.28	0.36	0.00	0.22	0.25	0.26	0.13	0.26	0.31
All India	**0.40**	**0.77**	**0.63**	**0.63**	**0.40**	**0.75**	**0.49**	**0.56**	**0.59**	**0.68**	**0.37**	**0.54**	**0.52**	**0.34**	**0.37**	**0.53**

Note: 1. NDLM Target Group; 2. Digital Literacy Status of Trainee's Family; 3. Trainee Benefitted per Family; 4. Financial Support to Beneficiaries; 5. Outreach Mechanism of NDLM; 6. Regularity of NDLM Training; 7. Form of NDLM Content and Material; 8. Facilities in Training Centre; 9. NDLM Lessons; 10. Knowledge of Trainer; 11. Teaching Methods; 12. Examination and Certification; 13. Usage of Digital Device; 14. Day-to-day Application of Digital Device; 15. Overall Benefit of NDLM Training.

Source: Computed by authors.

the beneficiaries in all the states/UTs are in the age group of 14-35 years. Next in this order are people in the age group of 36 to 45 years.

- *Social Groups:* The proportion of SC users was high only in a few states such as Rajasthan, Chhattisgarh and Punjab. Similarly, the proportion of STs was high in Nagaland and Chhattisgarh. In the other states, however, the SC and ST enrolment is quite low in spite of the provision of financial assistance to these categories. It was reported by Madhya Pradesh that establishing training kiosks for the SC and *adivasi* communities and the hiring of SC and ST trainers from their localities boosted the interest of the SC/ST candidates.
- *BPL/Non-BPL:* More than 60 per cent of the beneficiaries across the states/UTs are from a BPL background and the NDLM programme had achieved one of its major goals by reaching out to the target group in this category. However, the maximum numbers of non-BPL card holders were seen to have benefited from the programme in the states of Jammu & Kashmir, West Bengal and Himachal Pradesh.
- *Financial Support to the Beneficiaries:* Out of the total SC/ST and BPL candidates, more than 80 per cent of the respondents stated that financial assistance by way of complete fee waiver was provided to these beneficiaries. However, it also came to light that in most of the states, the programme was also being offered free to members of the general and non-BPL categories. It was also observed that some of the training partners and centres were charging fees from the SC/ST and BPL communities, and that fee higher than the stipulated amount was also charged by the training centres.
- *Digital Literacy Status of Trainee's Family:* More than 70 per cent of the respondents at the national level stated that no one in their families had acquired digital literacy before registering for NDLM. The programme was thus successful in meeting the mandates with respect to digital literacy status. However, in states/UTs such as Bihar, Delhi, and Manipur, the respondents that some of the members in the family had computer knowledge even before of availing the training under NDLM.
- *One per Family Norm:* At the national level, 76 per cent of the respondents reported that only one member from their family attended the NDLM training. However, in Rajasthan, Punjab and Daman & Diu, a larger proportion of students reported that more than one member from their family attended the training. As reported in Rajasthan, many such families, who have availed of this training, are living in a joint family set-up.

(ii) Training Components

Good performances under this dimension were visible in about 12 states, while 6 fall under the category of moderate performers and 8 in the low performing category. Overall, most of the states/UTs exhibited positive outcomes in terms of both designing and implementing the basic components necessary for the programme. Under this dimension too, there were variations across states/UTs. The key findings are as follows:

- *Sources of Information on NDLM Training:* Different kinds of outreach measures were initiated in states such as Andhra Pradesh and Madhya Pradesh, such as advertisements in televisions, approaching farmers' clubs, consultation with *gram panchayats*, *mandals*, and camps in slums, among other initiatives. In almost all the states, friends constituted the chief source through which many students got to know about the NDLM training, while advertisements and schools were the major sources of information.
- *Regularity of Training:* At the national level, more than 90 per cent of the respondents stated that the NDLM training used to take place on a regular basis and only 6.39 per cent complained about any irregularity in

the training. The main states/UTs where the training was not regular included Jammu & Kashmir (29.99 per cent), Manipur (29.28 per cent), and Kerala (23.24 per cent). It was observed that hilly areas and conflict zones largely faced the problem of irregularity of training. Regions with frequent power cuts also faced problems with regard to the conduction of regular trainings. Another reason for irregularity of training was the lack of interest exhibited by the students in attending the training on a regular basis.

- *Teaching Learning Material under NDLM:* The Teaching Learning Material (TLM) of NDLM was in audio-video mode while the e-book of the same was also available. Some of the students reported that though the videos were interesting to watch, it was difficult to retain the lessons for long as the videos were not handy for revision.

(iii) Training Infrastructure and Classroom Processes

In the dimension on 'Training Infrastructure and Classroom Processes', the performances of most of the states seem to be good and states/UTs such as Uttarakhand, Uttar Pradesh, Chhattisgarh and Delhi fall in the category of good performers. Himachal Pradesh, Punjab, and Maharashtra, among others, are the states with moderate performance whereas the states with low performance include Manipur, Nagaland, West Bengal and Tamil Nadu. The key highlights are as follows:

- *Facilities in the Training Centre:* In Andhra Pradesh, Chandigarh, Himachal Pradesh and West Bengal, the essential computer facilities are better than the supportive secondary facilities. In the case of Jharkhand and Kerala, however, a completely opposite picture is seen as here, facilities like web cameras and scanners are in better condition than the essential facilities like Internet and power back-up.
- *NDLM Lessons:* While 83 per cent of the respondents said that lessons were taught on computers, 77 per cent reported having lessons on the usage of smart phones, 58 per cent stated that they had received lessons on the usage of tablets, Internet (77 per cent) and accessing government services (49 per cent). Some of the students also recommended that advanced computer courses be offered in the near future based on the education levels of the students.
- *Teaching Methods:* In Andhra Pradesh and Chhattisgarh, emphasis has been laid on the adoption of practical teaching methods as compared to states like Nagaland, West Bengal, Karnataka and many others where classes have been more theoretical.
- *Knowledge of Trainer:* In many of the states, 100 per cent of the respondents asserted that the trainers had appreciable knowledge of the course content, and the national average for such respondents is as high as 87 per cent.
- *Examination and Certification:* It was observed that 63 per cent of the students faced no difficulty in giving the exam while 37 per cent claimed to be of facing difficulties, and 40 per cent stated that they had received the certificate either in original or through online. The issue of certificates was prompt in the states of Rajasthan, Himachal Pradesh, and Uttar Pradesh, as revealed by 55 per cent of the respondents. In Kerala, Karnataka and West Bengal, where the examination process was delayed due to technical reasons, the certification process was comparatively better.

(iv) Training Outcome

The key highlights in the dimension of 'Training Outcome' are as follows:

- *Usage of Digital Device:* As many as 63.03 per cent of the respondents who received the training stated that they are able to use the digital devices to check and send emails. The response rate for this was high in the states of Rajasthan, Gujarat,

Delhi, Punjab, Kerala and Maharashtra. In Manipur, Jharkhand, Odisha and Tamil Nadu, however, some of the students trained stated that they were unable to use digital devices due to the lack of practice at home.

- *Day-to-day Application of Digital Device:* It was found that 51.9 per cent of the respondents were able to use digital devices for day-to-day applications like doing office work, and school/college work, while 48 per cent are not able to use the devices as they do not have them at home.
- *Overall Benefit of NDLM Training:* As many as 64.05 per cent of the respondents across the states/UTs averred that the NDLM training had contributed in improving their awareness, while this proportion was high in Andhra Pradesh and Gujarat. Some of the respondents also reported about getting jobs, promotions and increase in incomes.

Recommendations

Overall, the performances of various states with regard to most of the indicators were good. However, gaps were identified in certain areas and corrective measures on those aspects will help in improving the next phase of the NDLM. Following are the key suggestions made on the various components.

(i) Beneficiary Coverage

- In some states, more than one member from the targeted family was selected. In a number of states, non-eligible families were also selected. Hence, there is need for more prudent and accurate selection of beneficiaries to ensure adequate coverage of the target population.
- The educational backgrounds of the trainees varied. Some of them were graduates while others had only studied up to the 10th standard. Both their levels of understanding as well as the levels of use of the training acquired by them varied. Accordingly, it is recommended that different training modules should be designed for beneficiaries with different levels of education.
- In a number of states, elderly people in the age group of 60 plus years also showed an interest in the digital training for their day-to-day usage. The eligibility criteria should thus be modified to include the elderly population, but the training modules should be different for them.
- A number of states adopted innovative methods of targeting the BPL/SC/ST and women beneficiaries. Elected representatives of the panchayats in the villages were also involved in identifying eligible beneficiaries. The best practices adopted in some of the states can, therefore, be replicated in the other states.
- There is need for strict monitoring of the implementation of programme for SC/ST and BPL candidates, especially in terms of fee waiver for various groups. Further, proper mechanisms should be developed to ensure that the training partners and training centres do not charge extra fees from the candidates.
- The outreach measures in a few states included advertising in local newspapers and radios, campaigns in slum areas, meetings with *panchayat* leaders and working population groups (for example, farmers' clubs, teachers, and MGNREGA workers), and the use of mobile vans. These practices should also be adopted by the other states.

(ii) Training Component

- The training modules should be designed as per the needs of the beneficiaries belonging to diverse age and educational groups. Accordingly, different modules of training need to be developed.

(iii) Training Infrastructure and Classroom Processes

- Proper scrutiny of training partners and centres, before the commencement of the training programme is essential, in order to ensure that the training centres are equipped with proper computers, internet connectivity and other requisite infrastructure.
- Due to the prevalence of server and technical problems such as crowding on the portal, the examination was not conducted on time in some states. This indicates that the range of the bandwidth should be enhanced to prevent the portal from hanging due to multiple hits at a time. The examination can thus be conducted for different zones in different time slots.
- The examination should be conducted immediately after the training. There should be a minimum time gap between the closure of training and conduction of the examination.
- The process of issuing of certificates should be expedited.

(iv) Training Outcomes

- Some of the students were not able to use the digital devices due to lack of access to the equipments, especially after completion of their training. As a result, they also forget their lessons. Hence, the PMU may instruct the training centres to allow the students to use the facilities at the training centres for limited purposes, even after training period.
- Students, who have taken training, mostly use digital devices for WhatsApp, Facebook and playing of games. The training should also orient them for using it for other purposes. Emphasis should also be laid on the usage of digital devices for accessing government services and other utility based services such as booking of railway tickets, applying for pan-card, passport, aadhaar card, etc.

8
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Annexes

ANNEX-1

NDLM SURVEY
Interview Schedule for Trainees

INSTRUCTIONS

1. Please read carefully the following notes as well as note(s) against each question.

2. Please tick (√) the appropriate box against each question/information sought, unless mentioned otherwise. Tick (√) indicates 'Yes' (means positive selection). Please make multiple selections, if needed. If a box is not ticked, it will be treated as 'No' filled in that box.

3. The respective codes for each response have been mentioned within the relevant section. Where the respondents have other answers apart from the given choice, the answer can be elaborated under 'others' under 'code 9'.

4. Please give explanatory notes/observations wherever required.

5. In the course of the conversation with the respondents, special aspects that can be covered under 'case study' can be highlighted.

6. The information sought in this exercise is for research and survey purposes only.

7. Section I is a qualifying question to initiate the survey. Please assess and proceed further.

QUALIFYING CRITERIA

Particulars	Response
Have you attended the computer course under NDLM project? (If yes, proceed further)	

1. SECTION I: GENERAL INFORMATION

Sl. No.	Questions	Responses
1.	What is your age?	
2.	What type of ration card do you have?	
	BPL (1)	
	Non-BPL(2)	
	No ration Card (3)	
	No Response(4)	
3.	What is your community?	
	SC (1)	
	ST (2)	
	OBC (3)	
	General (4)	
	No response (5)	
4.	What is your educational qualification?	
	Illiterate (1)	
	Neo literate (2)	
	up to 7th standard (3)	
	up to 10th standard (4)	
	up to 12th standard (5)	
	Diploma (6)	
	Graduation (7)	
	Other (9)	
5.	How many members in your family are digitally literate?	
	None (1)	
	Less than 2 members (2)	
	2 to 4 members (3)	
	5 to 6 members (4)	
	more than 6 members (5)	
6.	How did you get registered in the NDLM programme?	
	Advertisements (1)	
	Friends (2)	
	Websites (3)	
	School (4)	
	Others (9)	
7.	Do other members of your family attend this training program? Yes (1), No (2)	
8.	When did you enroll in this course? (MM/YYYY)	
9.	When did you appear for final examination? (MM/YYYY)	
10.	Was there a gap in giving the exam? If yes, mention reason(s) No (1), Yes (9)	
11.	Mode in which you have received your certificate?	
	Provisional Online/Print version (1)	
	Certificate in original (2)	
	not received in any form (3)	
12.	How much fee did you pay for the course?	
	No fees (1)	
	Rs. 125 (2)	
	More than Rs. 125 (3)	

2. SECTION II: SATISFACTION IN TRAINING

Sl. No.	Questions	Responses		
1.	Did you have your classes on a regular basis?			
	Always regular (1)			
	Mostly regular (2)			
	Irregular (3)			
2.	What is your opinion on the basic IT facilities in the training centre?	**GOOD (1)**	**AVERAGE (2)**	**BAD (3)**
a.	Computers			
b.	Internet Connectivity			
c.	Power Back-Up			
d.	Printer			
e.	Web-Cam			
f.	Scanner			
3.	What was taught in class?			
a.	Basic computer application (Yes-1, No-2)			
b.	Use of mobile/Smartphones for internet browsing (Yes-1, No-2)			
c.	Use of tablet for internet browsing (Yes-1, No-2)			
d.	Use of internet (Yes-1, No-2)			
e.	Accessing online government service (Yes-1, No-2)			
f.	Others (9)			
4.	What were the ways in which the course material was supplied under NDLM?			
a.	Through projectors/Audio-video mode (Yes-1, No-2)			
b.	Booklet (Yes-1, No-2)			
c.	e-Content of Book (Yes-1, No-2)			
d.	Photocopy of Study Materials (Yes-1, No-2)			
e.	Others (Yes-1, No-2)			
5.	What is your opinion on the knowledge of your trainer?	**GOOD (1)**	**AVERAGE (2)**	**BAD (3)**
6.	What were the teaching methods practiced?			
	More of theory (1)			
	More of practical by using devices (2)			
	More of audio-visual/Projectors (3)			
	Mix of all (4)			
7.	What is the language of instruction in class?			
	Hindi (1)			
	Local language (2)			
	English (3)			
	Mix of all (4)			
8.	Did you face difficulty in giving online examination?	**Yes (1)**		**No (2)**
	If yes, give reasons			

3. SECTION III: TRAINING OUTCOME

Sl. No.	Questions	Responses		
1.	Which device can you operate effectively after the NDLM training?	**GOOD (1)**	**AVERAGE (2)**	**BAD (3)**
a.	Computer/Laptop			
b.	Tablets			
c.	Mobile/Smartphones			
d.	Others			
2.	For what purpose do you use the digital device?			
a.	Sending/receiving mail (Yes-1, No-2)			
b.	Search internet for information (Yes-1, No-2)			
c.	Facebook/twitter (Yes-1, No-2)			
d.	Paint (Yes-1, No-2)			
e.	Searching for jobs (Yes-1, No-2)			
f.	Availing of Government services (for example, Aadhar card, booking of tickets, etc.) (Yes-1, No-2)			
g.	Games (Yes-1, No-2)			
h.	Others (Yes-1, No-2)			
3.	In what ways is the training helpful in day-to-day activities?			
a.	Doing School/College Work (1)			
b.	Doing Office Work (2)			
c.	Not able to use/No access to digital device (3)			
d.	Other (9)			
4.	What is the overall benefit of the NDLM training?			
a.	Improved General Awareness (Yes-1, No-2)			
b.	Improved my ICT knowledge (Yes-1, No-2)			
c.	Increased my confidence level (Yes-1, No-2)			
d.	Got a job (Yes-1, No-2)			
e.	Got promotion in Job (Yes-1, No-2)			
f.	Got more income (Yes-1, No-2)			
g.	Able to teach others on computer application (Yes-1, No-2)			
h.	Others (Yes-1, No-2)			
5.	What is your suggestion on infrastructure, course material, exam pattern, course duration, trainers, etc. of the NDLM training/course? (kindly provide answer to the section sheet/column/row)			

ANNEX 2: STATUS OF SURVEY RESPONSE

Sl. No.	States	Busy/No Response/ No Answer	Switched Off/Not Reachable	Wrong Nos.	Call Back	Not Available	On Training	Others	Not Attended	Incomplete	Completed Interviews	Total
1.	Andhra Pradesh	949	797	224	1409	2408	2	5	489	9	2000	8292
2.	Bihar	3229	1789	188	79	1549	0	8	239	3	2000	9084
3.	Chandigarh	892	293	37	5	462	0	0	85	4	222	2000
4.	Chhattisgarh	1074	182	16	585	479	0	0	169	0	667	3172
5.	Daman & Diu	181	61	7	1	27	0	0	2	2	222	503
6.	Delhi	684	402	145	57	455	0	3	62	2	667	2477
7.	Gujarat	2038	282	182	863	3159	0	88	256	20	2000	8888
8.	Haryana	452	245	65	26	215	0	1	8	0	667	1679
9.	Himachal Pradesh	724	332	179	268	22	9	0	143	0	222	1899
10.	Jammu & Kashmir	466	89	32	42	16	1	1	56	2	667	1372
11.	Jharkhand	523	91	12	18	12	2	2	489	1	667	1817
12.	Karnataka	1890	1299	121	1355	1223	2	2	2589	8	2000	10489
13.	Kerala	1567	861	148	1242	1135	3	3	1689	7	667	7322
14.	Madhya Pradesh	2098	1321	410	220	1123	0	15	310	9	2000	7506
15.	Maharashtra	1876	917	512	1792	1489	4	4	2985	8	2000	11587
16.	Manipur	188	58	12	15	8	1	1	36	1	222	542
17.	Nagaland	128	58	14	17	6	0	0	59	1	222	505
18.	Odisha	935	678	108	18	184	0	0	42	1	667	2633
19.	Puducherry	112	84	16	16	12	0	0	65	1	222	528
20.	Punjab	889	275	133	127	249	0	4	36	5	667	2385
21.	Rajasthan	1914	700	67	152	231	0	3	3440	5	2000	8512
22.	Tamil Nadu	3197	1012	338	1222	1212	5	4	1985	7	2000	10982
23.	Tripura	123	98	8	4	2	1	1	23	1	222	483
24.	Uttar Pradesh	3051	2126	228	1768	280	0	0	683	3	2000	10139
25.	Uttarakhand	473	73	3	55	13	0	0	1012	0	667	2296
26.	West Bengal	5467	1245	455	1689	988	4	4	2248	9	2000	14109
	All India	**35120**	**15368**	**3660**	**13045**	**16959**	**34**	**149**	**19200**	**109**	**27557**	**131201**

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