ICTA ideas actioned

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Information & Communication Technology Agency of Sri Lanka (ICTA)

Nenasala Interim Survey

Final Report

March 2008

A survey carried out for ICT Agency of Sri Lanka by MG Consultants (Pvt) Ltd.

MG CONSULTANTS

MG Consultants (Pvt) Ltd.

Acknowledgements

Firstly we would like to extend our thanks to all institutions and individuals for their valuable contributions and assistance extended to us in successfully conducting this evaluation survey.

We gratefully acknowledge the Leadership Team of the Information and Communication Technology Agency of Sri Lanka (ICTA) for the cooperation extended to us to complete this study successfully.

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Information provided by the various Nenasala Operators, Venerable Chief Incumbents of religious places of worship and users of Nenasala facilities in the sample who readily agreed and responded to our questionnaire, undoubtedly served as the nucleus of this study. We sincerely thank all of them and highly appreciate their contribution towards this venture of national importance.

The findings and recommendations in this report was prepared on the basis of an in-depth evaluation survey undertaken by M G Consultants (Pvt) Ltd., in late December 2007 through early January 2008 and subsequent meetings, consultations and interviews carried out during the month of January 2008. The views expressed herein are solely of M G Consultants and should not be attributed to the ICT Agency of Sri Lanka (ICTA).

Executive Summary

Background

It is reported that over 80% of the world's population does not have access to information and communications technology (ICT) and only 10% have access to the Internet. Of those who have access to the Internet 5% are in the Asia Pacific region.

ICT is an enabler and a tool that can help people increase their income levels in whatever fields of employment they are involved in. There is an urgent need to increase access to information and the Internet and these facilities be made available to the general masses mainly the rural folks including farmers in Sri Lanka. The "digital divide" that separates the urban areas from the rural communities in Sri Lanka is quite significant. One of the goals therefore identified under the Government's e-Sri Lanka Initiative is to facilitate access to ICT amongst the most vulnerable groups in Sri Lanka, and ensure that the benefits of ICT development flow to these groups.

Under the e-Sri Lanka initiative it was proposed to initially launch a total of 100 Tele-centres or Vishva Gnana Kendras (VGK) in 50 Grama Niladari divisions of the North & North East province and Southern province of Sri Lanka. The criterion that was used in choosing the locations in these two provinces included population spread, marketability, availability of schools and electricity. The ICT Agency selected VGK support institutions that requested private sector business, NGOs, community based companies in their allocated areas to submit written proposals to set up these centres and request for financial assistance under the VGK project.

The financial assistance package for the then potential Tele-centre operators coming under each of the VGK support institutions varied depending on whether they are located in semi urban, rural or any other specified area. The assistance scheme would start from as much as 100% to 25% scaling down to 0% by the end of the 4^{th} year.

Today this project known as Nenasalas aims to establish 1000 centers by the end of 2008, throughout the country. Out of this 1000, the 500^{th} Nenasala was recently established in Ampara. The expected impact by establishing these Nenasala centres is for it to become a hub of local, national and global information resources to provide a catalytic effect for the rural communities in poverty reduction, social and economic development and peace

building while aiming at providing these services in a sustainable manner. The majority of the Nenasalas follow a community model where the centres are established in a central place of a village such as a religious institution, public library or a community organization. Maximum effort is made to make available content essential to the rural community in both Sinhala and Tamil languages and all other users.

To solve the affordability gap, a voucher program has been introduced to offer free access to services by men, women and children. The scheme was designed by the ICTA with the objective of stimulating the use of ICT based services by residents of communities where the Nenasalas would be established at affordable costs and as an additional source of revenue for the Nenasala. The Nenasala which is proposed to act as a resource centre to the village to disseminate knowledge and to share information through the Internet has been designed with the ultimate goal of reducing poverty, peace building, economic and social development and improving the IT literacy rate of the country.

The expected project benefits:

- Increase in the IT literacy rate
- Knowledge Sharing
- Easy and affordable access to citizen services
- Access to e-commerce and ICT services leading to job growth in the rural areas thereby empowering the target groups through rural development

Even though all services and support provided by the Nenasalas are done in such a way as to guarantee long-term sustainability, survey findings reveal that centers run on a community level would require a strong business model if they are to sustain themselves in the long run. The lessons learned from the evaluation of the initial Nenasalas therefore should be taken seriously and used in the establishment of further Nenasalas across the country.

ICTA has 2 types of models depending on the complexity and the type of services that will be offered.

- Business Model
- Community Model

Objectives

The purpose of this assignment has been to identify necessary variables, collect the appropriate data, and generate a comprehensive evaluation report on the current situation of Nenasalas (NS) established under the ICTA Nenasala Project. The evaluation report provides information on the current operation and utilisation of Nenasalas, to what extent the objectives of these establishments have been achieved, and their level of sustainability. Additionally the information will also be used (i) to learn lessons from existing Nenasala establishments and (ii) to provide information on possible adaptations of future approaches for establishing more Nenasalas.

Specifically the findings of the survey provide detailed information and data for the ICT Agency as the key implementing agency of the Nenasala project on the following:

- to collect data and information required to measure achievement of expected results under the Nenasala project and
- to collect data and information for potential triangulation of regular monitoring indicator related data

Methodology Overview

The survey was designed and implemented with the guidance of the ICT Agency of Sri Lanka and overseen by an internal committee comprising of ICTA officials. The research was both qualitative and quantitative, conducted on a scientific basis. The agency selected 70 Nenasalas in the sample, out of which, 50 Nenasalas were used as the proper sample and the rest were used as the buffer. During the survey, some centres were found to be non-operating or closed for which replacements were taken from the buffer in consultation with the agency.

A comprehensive process was designed and monitored to ensure successful implementation of the survey. Two questionnaires; an operator questionnaire and a user questionnaire developed and provided by the agency and subsequently translated into both Sinhala and Tamil languages were used for the survey.

According to the guidelines of the agency, it was planned to interview all operators of the selected Nenasalas and 5 users per Nenasala totalling to 250 users by using the Operator Questionnaire and User Questionnaire respectively. However, due to temporary closure, non-operation or lack of visitors of certain centers, it was impossible to find the expected 250 users from those selected centers. No users were found in 11 centers and thus 170 users were found from only 43 Nenasalas.

At the end, a total of 54 operators and 170 users were interviewed during the survey. Face to face interviews were conducted by survey enumerators who were trained on survey methodology, objectives and background of Nenasala centers.

Completed questionnaires were quality checked and entered into a database for analysis using SPSS. The results (estimates) are within plus or minus 10% of the true values at the 95% confidence level. Results generated were examined and validated by a qualified statistician. For further details about the survey methodology please refer to the section 2.0 under “Survey Methodology”.

Table of Contents

List of Tables

List of Charts

Abbreviations

ICT	-	Information and Communications Technology
ICTA	-	Information and Communications Technology Agency
VGK	-	Vishva Gnana Kendra
SME	-	Small and Medium Enterprises
M & E	-	Monitoring and Evaluation
LGN	-	Lanka Government Network
IT	-	Information Technology
UPS	-	Uninterrupted Power Supply
ICBP	-	ICT Capacity Building Program
ITES	-	Information Technology Enabled Services
HR	-	Human Resource
CSR	-	Corporate Social Responsibility
MS	-	Microsoft
ICDL	-	International Computer Driving License
TV	-	Television
CD	-	Compact Disc
SPSS	-	Statistical Package for Social Sciences

1.0 Introduction

In general, the term Tele-centre is understood to mean a fusion of communications, information, multimedia and computing functions that help to address various community related problems and needs. In the West, there are examples of successful Tele-centres being "owned" by community cooperatives, small businesses, government agencies as well as educational institutions. In Sri Lanka a similar diversity of organizational forms have taken place under the Government's e-Sri Lanka initiative with these centres initially named as Vishva Gnana Kendra (VGK) or Knowledge Centres and in the recent past renamed to be known as Nenasalas. This evaluation survey seeks to find out the different levels of operation and the utilisation of these Nenasalas and to what extent the objectives of their establishment in various parts of the country have been achieved, and their current sustainability.

This evaluation report presents the overall status of Nenasalas operated in the country including both successful and unsuccessfully operated centers; the quality of courses conducted for operators and support extended by the ICTA including help desk facilities; information on users of these centers; quality and level of acceptance of training courses conducted by these centers; information on the level of usage of these centers and its facilities by SMEs and other business people; types of training programs conducted for schoolchildren and; a general assessment of overall training programs from the point of view of the general public.

The ICT Agency has identified Monitoring and Evaluation (M&E) as a critical function in order to measure the development effectiveness and impact of the e-Sri Lanka initiative in general and specifically through these evaluation surveys to facilitate project implementation for quality assurance purposes, and to provide necessary resources to stakeholders, interest groups and partners, facilitate better informed decision making and adaptation of programme design. Information from this particular survey will be used to learn lessons from existing Nenasala establishments and to provide information on possible adaptations of future approaches for establishing Nenasalas.

1.1 Broad Objectives of the Survey

The Nenasala project in general is intended to empower rural communities all across Sri-Lanka with affordable access to computers and the Internet. It is intended to provide a catalytic effect for the rural communities in poverty reduction, social and economic development and peace building while aiming at providing services in a long term sustainable manner.

The objective of this particular assignment is to identify necessary variables, collect the appropriate data, and generate a comprehensive evaluation report on the situation of Nenasalas established under the ICTA Nenasala Project.

2.0 Survey Methodology

This survey with its key objective of collecting appropriate data according to given indicators, based on which, this comprehensive report has been compiled and it would be used to learn lessons from currently operated Nenasalas, and to provide information on possible adaptations of future approaches for establishing new Nenasalas. At the time of conducting this survey, the 500th Nenasala was established in Ampara.

2.1 Study Population

The Nenasala project aims to establish 1000 centers throughout the country by end of 2008. Out of this proposed total, 500 Nenasalas have already been established. There are 2 models of Nenasalas promoted by the agency depending on their complexity and service offered.

1. Business Model
2. Community model

Centers in each of the above different models in the sample frame (district wise) are given in the Nenasala website (www.nenasala.lk). The list of selected Nenasalas was provided to M G Consultants on being awarded the contract to implement the survey.

2.2 Sample Selection

Out of the 500 Nenasala centers, first 200 centers that were established had already been studied. Hence, the present study focuses only on the balance 300 centers. Accordingly, centers for the sample were selected only from the balance 300 centers. Seventy Nenasala centers were selected randomly, out of which, 50 Nenasalas were used as the proper sample and the rest were used as the buffer. In fact some centres were found to be non-operating or closed for which replacements were taken from the buffer in consultation with the agency.

The exact sample size was determined to obtain the estimates within plus or minus 10% of the true values at 95% confidence level. The number of centers under the entrepreneur model in the sample was 20 and the balance 50 centers were community model based Nenasalas.

In order to obtain expected information from user point of view, the users were also interviewed at selected Nenasala centers. According to the guidelines of the agency, 5 visitors were planned to be interviewed per selected Nenasala center. However, due to temporary closure, non-operation or lack of visitors of certain centers, it was impossible to find the expected 250 users from those selected centers. At the end, a total of 54 operators and 170 users were interviewed and an equal amount of questionnaires were completed. Although 54 operators were interviewed, users were not found in all these centers. No users were found in 11 centers and thus 170 users were found only from 43 Nenasalas. The operator and user sample sizes including and excluding buffer and the return rates achieved are shown below in Table 1. Overall, the return rate for operators was 100% while it was 68% for users.

Table 1: Sample Sizes of Nenasalas

Population Size	Sample size (excluding buffer)	Sample size (including buffer)	Completed
300	50	70	54

Note that all identified 70 Nenasalas were visited. Out of them, information could be obtained only from 54 centers. Of the remaining 16 centers, 8 Nenasalas were closed, 1 center refused to provide information and the rest were temporarily closed on the day of the visit.

2.3 Indicators – Operators

- ***Status of Nenasalas in the sample and about the Respondents***

  The sample included centers established under the business model and community model. Centers operated by private individuals were located at premises either owned by them or rented out and community based centers were operated within the premises of temples, public schools and religious

schools, community centers and societies. Respondents to the questionnaires ranged from owners to managers of private centers and high priests to instructors/instructresses in religious centers.

- ***Information on Training Programs and Teaching Staff at Nenasalas***

  This section deals with training courses provided to users of Nenasalas and information on the teaching staff/instructors. Training is one of the major income generators for Nenasalas especially centers that do not offer services such as telephone, fax and photocopy services. Therefore, teachers/instructors form an integral part of the center. In most centers established under the community model, training is provided free of charge to students who attend weekly religious classes.

- ***Information on Nenasala Users***

  Users of these centers vary from children who attend religious classes on weekends to surf the net, to children and adults who attend training courses, to the occasional visit by the youth looking for job opportunities and business information.

- ***Outcomes from Use of Nenasalas by SMEs, business people and others***

  This section concentrates on the outcomes of using Nenasala facilities by business oriented people including SMEs, businessmen and others. As a majority of the Nenasalas in the sample represent the community model, the location and opening/closing times of these centers, are not favourable to businessmen. As a result, the Nenasalas are mostly frequented by school children attending computer classes and unemployed youth looking for jobs.

- ***Sustainability Issues***

  Can Nenasalas sustain themselves in the long term? This section probes the attitudes of operators of Nenasalas established under the business model as well as the community model, towards achieving self sufficiency within a given time frame. It also provides insight on their plans and how they plan to develop the centers in the future.

- ***Quality of training courses and support extended by the ICTA***

  This section provides data and information on the training courses conducted directly by the ICT Agency. Training has been given mainly on management of Nenasalas and some specific courses including the use of the Internet, hardware courses, etc. Detailed information is provided on ICTA-conducted programs, their usefulness towards successfully operating Nenasala centers, their achievements to date and impediments faced by them including extended support from ICTA.

2.4 Indicators – Users

- ***Information on User Respondents***

  Nenasalas cannot achieve their objectives without the patronage of the user community. Therefore, users are critical to the success of a Nenasala. This section provides basic information on gender distribution, different levels of ICT skills, and language barriers in using services provided at the Nenasala including the use of the Internet. Furthermore, information on the kinds of services and equipment available at their homes along with a background of their current employment and/or vocation has also been captured in the survey.

- ***User frequencies, services used and offered at Nenasalas***

  The level of effectiveness of a Nenasala on the community depends on how often the center is visited by the users and on the different types of services offered to the user community. Do they visit the center once, twice or thrice a week or is it a daily visit.

- ***ICT skills training programs and quality of training***

  Training programs whilst being most popular with users also bring in required funds that help the Nenasalas to sustain themselves. This is so especially with centers established under the community model. Responses also show training courses offered by the centers to be the most used service predominantly by students.

  This section also provides details on the different types of training courses followed by the users, availability of teaching staff and the quality of teaching.

- ***The use of Internet and price competition***

  The setting up of Nenasalas and providing access to the Internet is one way of fulfilling the urgent need to increase access to information by the general masses, mainly villagers including farmers in rural Sri Lanka. Information is provided from a user point of view on download time, speed of access and most importantly on the purpose of using the Internet.

  In certain areas where Nenasalas are established, there exist other competing cyber cafes and communication centers providing similar services. If so, is there a price or service advantage? How far are these other centers from the Nenasalas? Do the centers require any improvements to facilities? The findings in this survey provide answers to the above questions.

- ***Social impact of Nenasalas on Users***

  Services provided at the Nenasalas have contributed significantly to the lives of the users in general with improvement of general knowledge, learning new skills, access to Government information and services, and the drive to join social/political groups and societies as the main contributions. However, there has been minimal impact on improving existing business, finding new business opportunities and contacts, and to making direct sales for business people.

2.5 Survey Implementation

ICTA officials directed and guided the survey implementation. A comprehensive process was designed and monitored to ensure successful implementation of this survey. The field tested questionnaires; both operator and user questionnaires was developed by the ICTA. Enumerators were trained on the objectives and the relevance of the questions. The questionnaires in all three languages were hand carried by the enumerators and extensive one on one interview with operators was scheduled for the enumerators to assist the respondents complete and also to validate the questionnaire. Users were randomly picked at the time of the visit to the Nenasala and interviewed during the visit.

2.6 Data analysis, interpretation and reporting

While the user questionnaires were verified and validated at the time of the interview, the operator questionnaires were verified and validated during the quality checking process and entered into a database. Data was analyzed using SPSS and tabulated according to the requirements laid out in the outline of the Final Report. The initial findings were presented to the ICTA Steering Committee for their comments and after several meetings with representatives of ICTA consequent to whose approval the findings are presented in this document.

3.0 Results

3.1 Results Based on Operator Responses

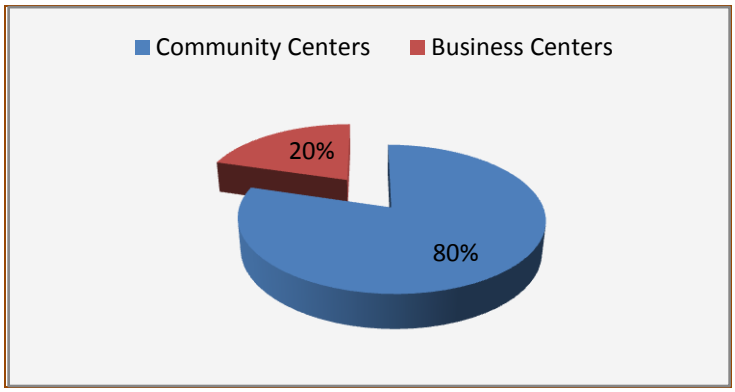
3.1.1 Introduction to the Government's Nenasala Project

Prior to the liberalization of telecommunications in Sri Lanka, acquiring a telephone connection meant a waiting time of over an year or maybe even two years even in the popular Colombo district. Setting up of Tele-centers in rural areas of Sri Lanka was considered a suitable alternative to communities without access to any form of communications. This dates back several years before the dawn of the e-Sri Lanka initiative. Thanks to the efforts made by a cluster of IT savvy professionals and an equally tech savvy government, Sri Lanka has an ICT Roadmap known as the e-Sri Lanka initiative.

The Nenasala Project, formerly known as the Vishva Gnana Kendra (VGK) is one of the projects implemented under the e-Sri Lanka Initiative. The ICT Agency has incorporated it under the "Nenasala" label to introduce different models of Tele-centers or knowledge centers to be established in all parts of Sri-Lanka to spread ICT services to the rural and semi-urban population.

Chart 1 shows the breakdown of Nenasalas in the sample. 80% of Nenasalas were community centers including temples/ schools and 20% were business centers.

Chart 1: Breakdown of Nenasalas



According to the table below, 9% of the premises where the Nenasalas were located were rented premises, whereas another 11% was owned by the operators themselves. Nenasala centers in the balance 80% were located in premises of religious centers, schools and societies.

Table 2: Breakdown of Ownership of property

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Property Ownership	Rented			*5*	*45.6*	*5*	*9.3*
	Owned by Operator	*4*	*9.3*	*2*	*18.2*	*6*	*11.1*
	Other	*39*	*90.7*	*4*	*36.4*	*43*	*79.6*
Total		*43*	*100.0*	*11*	*100.0*	*54*	*100.0*

3.1.2 Information on Respondents

According to Chart 2 below 48% of the respondents are paid employees, who manage the center on behalf of the owner and 52% are actual owners of Nenasalas. A point to be noted is that Nenasalas owned by private individuals manage the centers by themselves whereas paid employees are instructors hired to conduct training programs by mostly religious centers.

Chart 2: Breakdown of Paid Employee and Owner

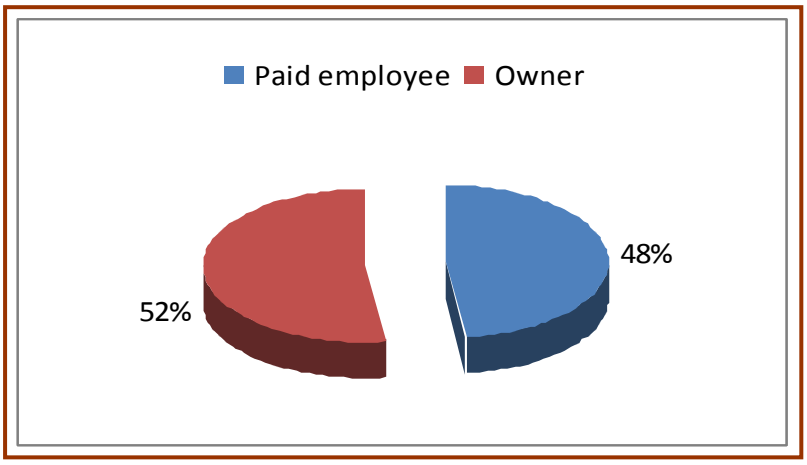


Table 3 below gives the different levels of ICT skills possessed by respondents to the questionnaire from centers in both the community and business models. They fall into the categories of either being a paid employee or the owner himself.

Table 3: Different Levels of Computer Expertise of Respondents

Particulars	Community Model		Business Model		Total	
	No	%	No	%	No	%
None at all	5	*12.0*	1	*9.1*	6	*11.3*
Basic ICT skills	17	*40.5*	1	*9.1*	18	*33.9*
Medium (Diploma level)	19	*45.2*	8	*72.7*	27	*51.0*
High level (Degree level)	1	*2.3*	1	*9.1*	2	*3.8*
	42	*100.0*	11	*100.0*	53	*100.0*

3.1.3 An Inventory of Hardware and Software at Nenasalas

Basically all Nenasalas had computers and printers. Additionally the centers also had other hardware items such as cameras, scanners, head phones and UPS. Only a few centers had photocopiers and fax machines. The inventory of these hardware items is given in below.

Table 4: Breakdown of Hardware items in the sample

Particulars			Functioning	Not Functioning
Community Model	Hardware	Computers	144	27
		Printers	49	6
		Speakers	21	.
		Camera	24	1
		Head Phones	18	.
		Sat. Antenna	3	.
		UPS	54	1
		Scanner	3	.
		Photocopier	3	.
		Fax Machine	2	.
Business Model	Hardware	Computers	67	6
		Printers	21	3
		Speakers	.	.
		Camera	7	.
		Head Phones	6	.
		Sat. Antenna	.	.
		UPS	6	.
		Scanner	5	.
		Photocopier	7	.
		Fax Machine	3	.

It is useful to note from the table above that, out of 144 computers available in centers under the community model, 27 computers (19%) are not functioning. In the case of centers established under the business model, of the 67 computers, 6 of them (9%) are not functioning.

It was found that while all centers in the sample were provided with proprietary operating systems, a few of the centers had ventured into open source operating systems. However, the base operating system at these centers was proprietary.

Table 5 shows the software application packages installed in centers under both models. These include MS Office, graphic designing software such as Photoshop and Corel Draw and other packages such as Dream Weaver, Nero, PageMaker, Illustrator and Adobe Acrobat. Note that some centers have not responded with respect to the availability of software packages.

Table 5: Different Types Software Packages Available At Nenasalas

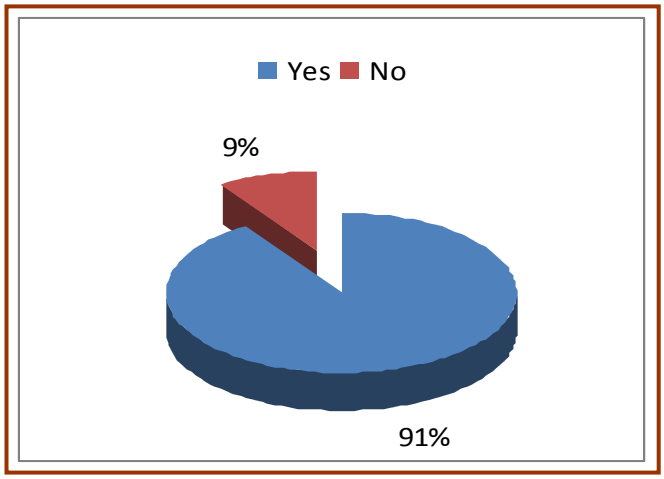
Particulars		Community Model	Business Model
Software Package	MS Office	33	8
	Photoshop	27	7
	Corel Draw	17	3
	Dream Weaver	4	
	Nero	2	2
	PageMaker	6	3
	Illustrator	1	
	Adobe Acrobat	9	1
	Visual Basic	2	
	Dictionary	1	

3.1.4 Information on Training and Teaching Staff at the Nenasalas

Almost all Nenasalas irrespective of whichever model they fall into conduct ICT training programs as this is one of their main income generators. Although the sustainability criteria differs from the business model to the community model promoted under the Nenasala project, the fact remains that these centers provide

yeoman service to the community in contributing to bridging the digital divide to extent possible by providing access to computers and the Internet.

Chart 3: Training Provided by Nenasalas



In general, members of the community both young and old appreciate the services provided by the Nenasalas. With regards to the training conducted at the centers, 91% of the operators in the sample confirmed having provided training with only 9% not providing training.

According to data gathered, Table 6 below gives details of training programs conducted by the Nenasalas in the sample and average number of contact hours, duration of training and numbers trained. On an average the most numbers trained are in ICDL, MS Office package, Computer for Kids, Basic course, Graphic and Web Designing courses. Average minimum numbers trained are in Hardware and Computer Systems Engineering courses. Note that there was no significant difference between the two models with regard to training courses and hence information given in the table below is for both models.

Table 6: Details of Training Courses conducted by Nenasalas

Course	Average Contact (Hours)	Average Duration (Weeks)	Average Number Trained
MS Office	98	27	49
Computer for Kids	34	17	41
Basic Course	83	22	40
Graphic Design	165	47	20
Hardware	77	16	7
Web Design	32	16	20
ICDL	243	22	60
Internet	87	10	20

Computer instructors attached to Nenasalas are not permanent employees. Retaining these instructors is quite a challenge to these centers, especially to the ones located in

religious centers, as no sooner a better paying job is offered, they prefer to leave. Enumerators on numerous occasions have faced situations where no details of training programs, instructors, etc., can be collected due to instructors having left the centers in search of greener pastures. However, based on the available data collected during the survey, Table 6 below gives details on the average age, gender distribution and their basic qualifications, whether they were trained or not and if they have undergone ICTA training.

ICT teaching staffs form an integral part of a successful Nenasala. Even though Table 7 below provides details of all positions possible in Nenasalas, special note should be taken of information given on instructors.

Table 7: Details of Management Staff of Nenasalas

Particulars		Community Model		Business Model		Total	
		Count	%	Count	%	Count	%
Age	<24	31	*46.3*	14	*63.6*	45	*50.6*
	25-35	25	*37.3*	8	*36.4*	33	*37.1*
	36+	11	*16.4*			11	*12.4*
Total		67	*100.0*	22	*100.0*	89	*100.0*
Position	Instructor	43	*64.2*	17	*77.3*	60	*67.4*
	Manager	7	*10.4*	1	*4.5*	8	*9.0*
	Operator	10	*15.0*	2	*9.1*	12	*13.5*
	Owner	7	*10.4*	2	*9.1*	9	*10.1*
Total		67	*100.0*	22	*100.0*	89	*100.0*
Education	Primary	2	*3.0*	1	*4.5*	3	*3.4*
	Junior Secondary	30	*44.8*	12	*54.5*	42	*47.2*
	Senior Secondary	25	*37.3*	4	*18.2*	29	*32.6*
	University	10	*14.9*	5	*22.8*	15	*16.9*
Total		67	*100.0*	22	*100.0*	89	*100.0*
Training	Trained	57	*85.1*	20	*90.9*	77	*86.5*
	Untrained	10	*14.9*	2	*9.1*	12	*13.5*
Total		67	*100.0*	22	*100.0*	89	*100.0*
Trained by ICTA	Yes	29	*43.3*	5	*22.7*	34	*38.2*
	No	38	*56.7*	17	*77.3*	55	*61.8*
Total		67	*100.0*	22	*100.0*	89	*100.0*
Sex	Male	39	*58.2*	13	*59.1*	52	*58.4*
	Female	28	*41.8*	9	*40.9*	37	*41.6*
Total		67	*100.0*	22	*100.0*	89	*100.0*

3.1.5 Information on Nenasala Users

Monthly records maintained show irregularities in most cases to the extent that no effort has been taken to maintain proper record of usage and in certain cases no records whatsoever has been maintained. Privately run centers or Nenasalas operated on a commercial basis have taken some effort to maintain regular records of usage patterns.

Details of average number of sessions and usage hours of Nenasalas given in Table 8 below are based on information provided by operators within the sample.

Table 8: Average Number of Sessions and Usage Hours of Nenasalas by Users – 2007

Details	Dec	Nov	Oct	Sep	Aug	Jul	June	My	Apr	Mar	Feb	Jan
Hours of Computer Use (Hrs)	220	223	236	229	232	215	199	200	198	250	366	285
No. of User Sessions (No.)	335	220	213	207	218	240	215	218	220	197	178	187
Hours of Internet Use (Hrs)	129	114	102	98	109	114	102	104	114	96	164	124
No. of Internet Usage Sessions (No.)	140	143	128	123	127	143	130	132	131	93	84	141

Users of these centers vary from children who attend religious classes to children and adults who attend training courses and the occasional visit by the village youth looking for job opportunities and/or business information. Table 9 below gives details on the average number of users of both Nenasalas established under the community and business models respectively on weekdays and weekends. It is useful to keep in mind the breakdown of the sample according to its location prior to taking any decisions based on data and information provided in these sections.

Table 9: Average Number of Users of Nenasalas – December 2007

Particulars		Weekdays	Weekends
Community Model	Morning	52	187
	Afternoon	154	212
	Evening	111	189
Business Model	Morning	46	35
	Afternoon	35	27
	Evening	8	8

As per Table 10, the centers are used mainly by students of secondary classes followed by students of primary classes on both weekdays and weekends. However, technical/university students and adults use the centers under the business model more than the centers under the community model. This could be due to location, access, opening and closing times of the centers, and availability of communications facilities.

Table 10: Average of Number of Different Types of Users

Particulars		Weekdays	Weekends
Community Model	Primary	77	91
	Secondary	118	242
	University	22	77
	Adult	47	56
Business Model	Primary	74	143
	Secondary	200	163
	University	99	91
	Adult	86	150

3.1.6 Outcomes from Use of Nenasalas by SMEs, business people and others

Nenasala facilities operated under the business model are more frequented by business oriented people including SMEs, businessmen and others due to convenient locations and opening/closing times of these centers. Community based centers are frequented often by school children attending computer classes.

In response to the question on whether any users of these centers have found jobs as a result of undergoing training, 41% said 'Yes' and the balance 59% said 'No'. Responses under the different models are given below (Table 11).

Table 11: Jobs Found after undergoing Training courses at Nenasalas

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have any users of the Nenasala found jobs due to the training provided at the Nenasala?	Yes	16	*37.2*	6	*54.5*	22	*40.7*
	No	27	*62.8*	5	*45.5*	32	*59.3*
Total		43	*100.0*	11	*100.0*	54	*100.0*

Likewise, 26% of the respondents (Table 12) indicated some users had secured jobs via the Internet. However, the respondents could not provide proper details of neither jobs found as a result of undergoing training at the centers nor on jobs secured via the Internet.

Table 12: Jobs Found via the Internet at Nenasalas

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have any users of the Nenasala found jobs through internet searches at the Nenasala?	Yes	10	*23.3*	4	*36.3*	14	*25.9*
	No	33	*76.7*	7	*63.7*	40	*74.1*
Total		43	*100.0*	11	*100.0*	54	*100.0*

When operators were asked if any new businesses resulted or existing businesses improved due to Nenasala activities, 31% were positive even though these results were mostly in making contacts in areas such as agriculture and obtaining marketing information. While no specific details were given, 69% were of the opinion that no results were achieved (Table 13).

Table 13: Operator Responses to new business and improvements to existing businesses

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have any new businesses resulted or existing businesses improved due to Nenasala activities?	Yes	13	*30.2*	4	*36.3*	17	*31.5*
	No	30	*69.8*	7	*63.7*	37	*68.5*
Total		43	*100.0*	11	20.4	*54*	*100.0*

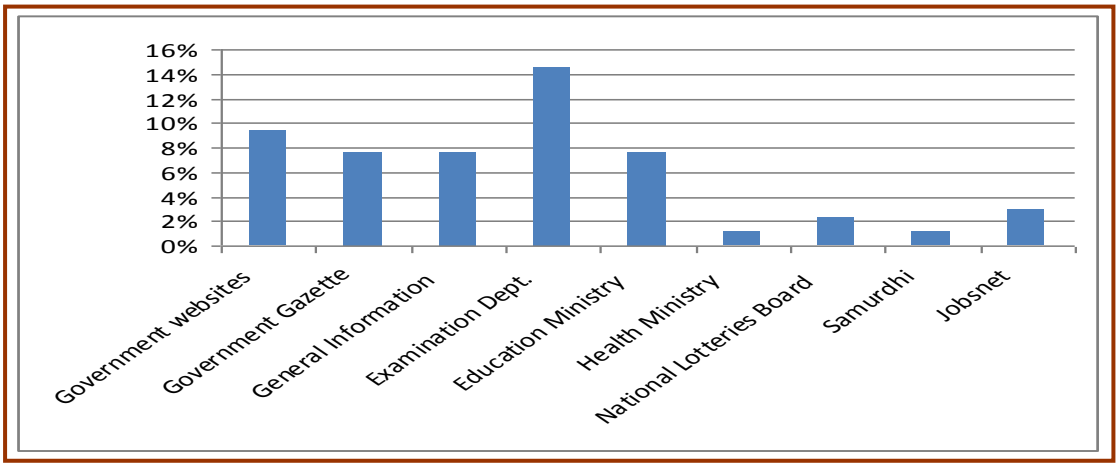
Users accessed Government websites for various reasons. According to Table 14, 70% of users' in general accessed Government websites for information and services.

Table 14: Access to Government Information/Services by Users

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have any users at the Nenasala made use of government information or service?	Yes	30	*69.8*	8	*72.7*	38	*70.4*
	No	13	*30.2*	3	*27.3*	16	*29.6*
Total		43	*100.0*	11	*100.0*	54	*100.0*

In order of preference, the most accessed sites include the examination department, other government sites, the government gazette, education ministry, etc., (Chart 4).

Chart 4: Government Websites accessed by Users at Nenasalas



3.1.7 Sustainability of Nenasalas

Sustainability is key for survival in the long term. In general, all Nenasala operators should plan and work towards self- sufficiency and economic viability through self-generated incomes. However, as the objectives of Nenasalas established under the business model differ from that of the community model, their roads to sustainability too are wide apart.

Even though 61% (Table 15) of the operators within the sample were of the opinion that they could operate the Nenasala by making sufficient profits and without outside financial help within a given time frame, it is a matter of concern to note that 39% did not share the same view. A majority of this segment as shown below fall under the community model. It is important to note that 90% of centers in the business model have indicated that they can be self sufficient whereas it is only 54% in the community model.

Table 15: Operator responses towards self-sufficiency

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Within a given time frame can you make sufficient profits and operate without outside financial support?	Yes	23	*53.5*	10	*90.9*	33	*61.1*
	No	20	*48.5*	1	*9.1*	21	*38.9*
Total		43	*100.0*	11	*100.0*	54	*100.0*

Responding to a particular time frame towards self sufficiency, as per Table 16, 33% of the operators indicated that they could achieve self sufficiency after one year, 7% after two years, 4% felt after four years and 19% represented those who were either self sufficient or did not have a definite time period. A further 37% did not respond to the question. The table below clearly shows that a majority of the centers under the community model do not have a definite period to achieve self sufficiency.

Table 16: Time period to achieve self sufficiency

Particulars	Community Model		Business Model		Total	
	No.	%	No.	%	No.	%
After one year	13	*30.2*	5	*45.4*	18	*33*
After two years	3	*7.0*	1	*9.1*	4	*7*
After three years						
After four years			2	*18.2*	2	*4*
Other	8	*18.6*	2	*18.2*	10	*19*
Did not respond	19	*44.2*	1	*9.1*	20	*37*
Total	43	*100.0*	11	*100.0*	54	*100*

Although some of the operators did not respond to the question of achieving self sufficiency within a given time frame, 78% (Table 17) of the operators in the sample confirmed having plans for self sufficiency while 22% did not have plans. Some of the services planned included provision of communication facilities such as telephone, fax and photocopying services, computer related services, and training programs including certificate courses.

Table 17: Operator responses towards plans for self sufficiency

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Do you have plans for self sufficiency?	Yes	32	*74.4*	10	*90.9*	42	*77.8*
	No	11	*25.6*	1	*9.1*	12	*22.2*
Total		43	*100.0*	11	*100.0*	54	*100.0*

With respect to the management structure or hierarchy at Nenasalas, this is dependent on whether the center was established under the business model or community model. In the case of the former, the owner heads the center under whom there is a manager and then instructors. On the other hand, if the center is located in a religious center, it is the head of the religious center followed by the instructor/instructress.

Table 18 below indicates that 54% of the operators interviewed had initiated partnerships with local organizations such as local schools and Sunday religious schools, cooperative societies, associations and libraries, and 46% had not initiated any contacts.

Table 18: Operator responses to initiating partnerships

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have you initiated partnerships with any local organizations such as schools, Libraries?	Yes	21	*48.8*	8	*72.7*	29	*53.7*
	No	22	*51.2*	3	*27.3*	25	*46.3*
Total		43	*100.0*	11	*100.0*	54	*100.0*

Furthermore, 81% of the respondents had initiated programs in the community to create demand for Nenasalas. This included increasing computer literacy via training programs, e-Learning, adult literacy programs and micro enterprise development programs (Table 19).

Table 19: Initiation of programs to create demand for Nenasalas

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have you initiated any programs in the community to create demand for Nenasalas?	Yes	36	*83.7*	8	*72.7*	44	*81.5*
	No	7	*16.3*	3	*27.3*	10	*18.5*
Total		43	*100.0*	11	*100.0*	*100.0*	*100.0*

3.1.8 Quality of Training courses and support extended by the ICTA

The ICTA, whose main objective is to update and upgrade the knowledge levels of the operators of Nenasalas, had conducted training programs mainly on management of Nenasalas and also on some specific courses including the use of the Internet, hardware courses, etc. These programs have been held at various venues so that it serves as a forum for operators to meet and network among themselves. The main expected outcome was that these operators get a better understanding of the different topics leading to the successful operation of the Nenasala. Table 20 shows that 72% had received training from the ICTA whereas 28% had not received any training.

Table 20: Training provided by ICT Agency to operators

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
Have you received any training on Nenasala operations organized by ICTA?	Yes	32	*74.4*	7	*63.6*	39	*72.2*
	No	11	*25.6*	4	*36.4*	15	*27.8*
Total		43	*100.0*	11	*100.0*	54	*100.0*

As per Table 21, 51% of the respondents were of the view that the training provided by the agency was very useful and in line with the objective, 31% considered it useful and 18% felt it was useful to some extent. The last segment also indicated that there was a need for continuation and refresher training programs that would help further update themselves. A few were of the opinion that there was a lack of follow up on the part of the ICTA.

Table 21: Operator Responses to ICTA Training Programs

Particulars		Community Model		Business Model		Total	
		No.	%	No.	%	No.	%
How do you feel about the training programs?	Very Useful	16	*50.0*	4	*57.1*	20	*51.3*
	Useful	11	*34.4*	1	*14.3*	12	*30.8*
	Useful to some extent	5	*15.6*	2	*28.6*	7	*17.9*
Total		32	*100.0*	7	*100.0*	39	*100.0*

3.2 Results Based on User Responses

The use of Information and Communications Technology (ICT) in rural areas of Sri Lanka is rather is limited and ICT Agency of Sri Lanka having formed to implement the country's ICT Roadmap has identified that the most effective way to provide access to ICT for communities living in rural areas is through the establishment of Nenasalas. A well executed Nenasala program would assist communities in their efforts to overcome poverty reduction, achieve social and economic development, and ever important exercise of peace building.

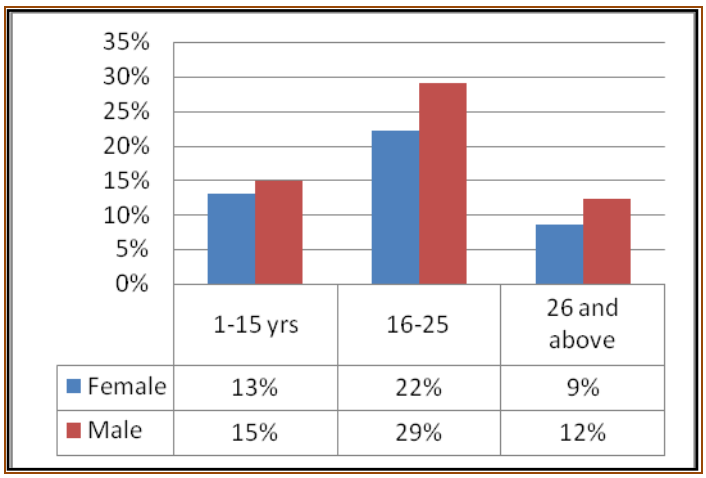
3.2.1 Information on User Respondents

Two questionnaires were developed of which one was used to collect data and information from users of Nenasalas in the sample. Users are a critical group that contribute to the success of a Nenasala.

Users interviewed for this survey represented all religions in Sri Lanka including Buddhists, Muslims, Hindus, Roman Catholics and Christians.

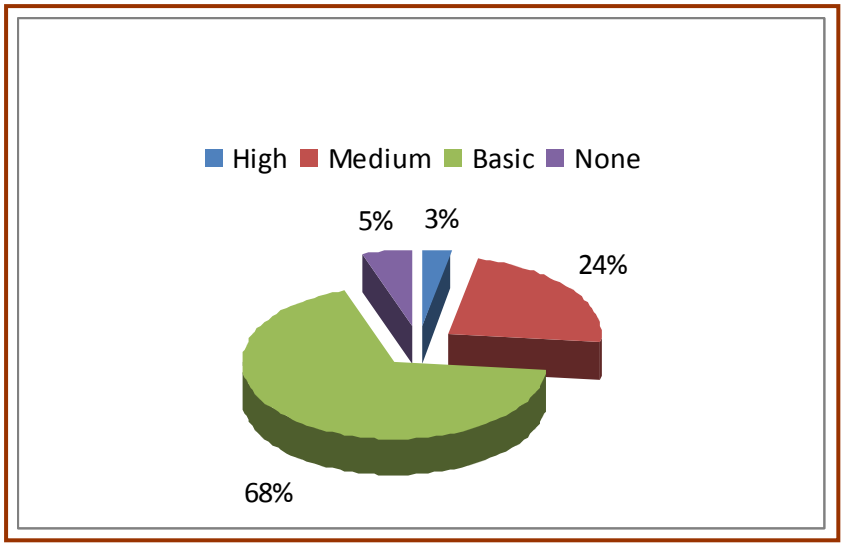
Chart 5 below shows the gender and different age categories of users of Nenasalas within the sample.

Chart 5: Gender and Age Distribution of Users



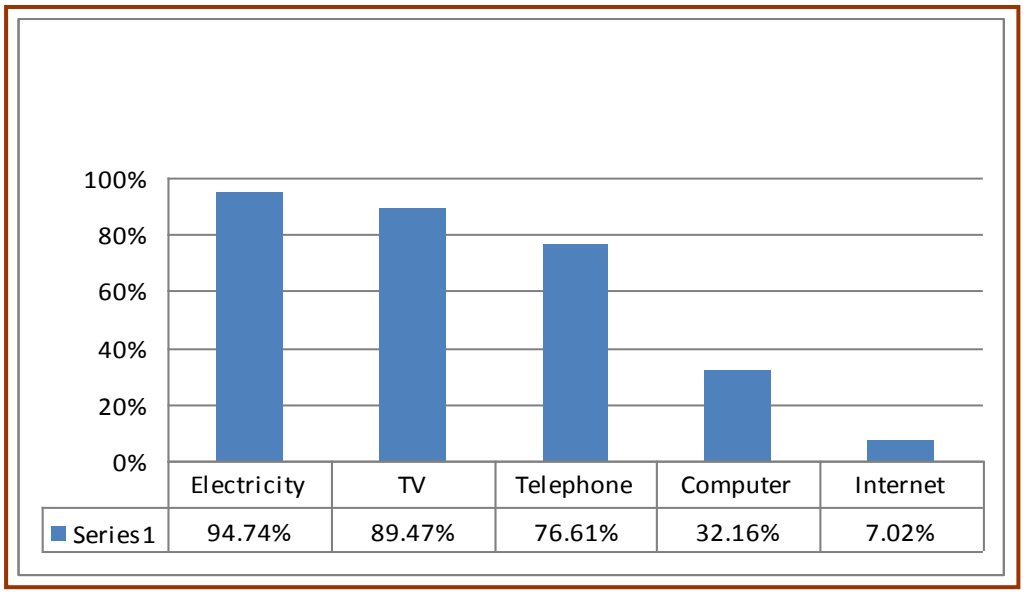
The ICT skills of the users vary and as shown in Chart 6, 68% had basic ICT skills, 24% had medium skills, 3% had high ICT skills and only 5% of the users interviewed had no ICT skills at all. 61% of those interviewed were of the opinion that language was not a barrier to using facilities at the Nenasalas including the use of the Internet.

Chart 6: Different Levels of ICT Skills of Users



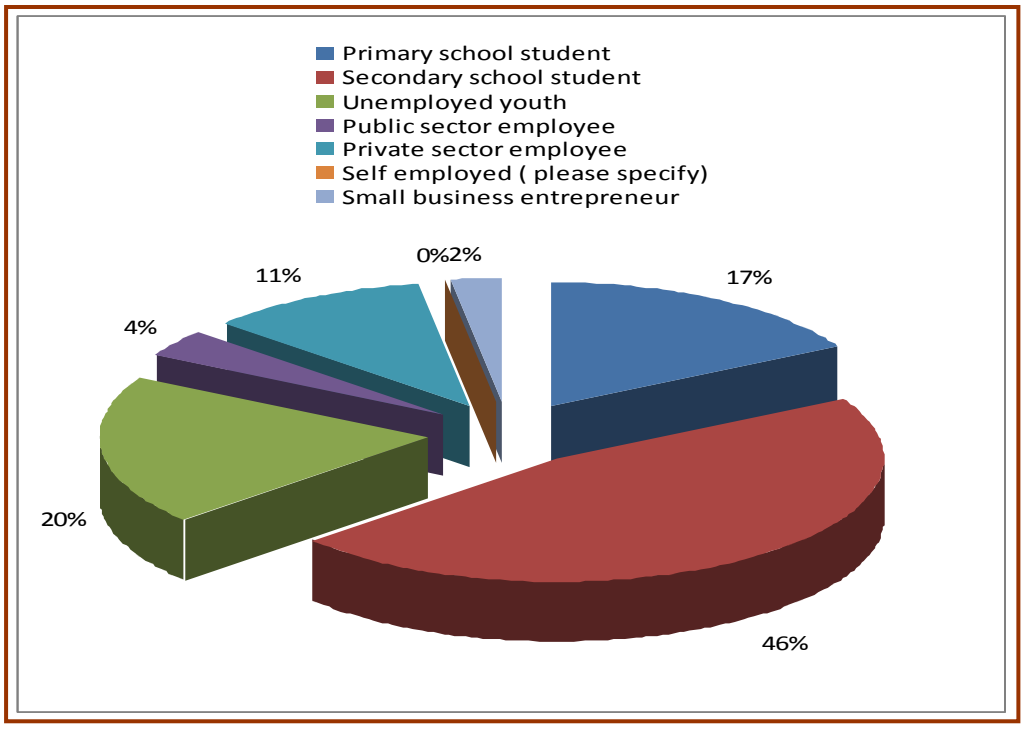
It was considered quite useful to gather some background information as to the type of basic facilities available at the homes of the users, such as electricity, television, telephone, computers and even Internet connection. It was found that 95% of the users had electricity at their homes, 89% had a television, 32% used a computer and 7% had Internet connectivity (Chart 7).

Chart 7: Availability of services/equipment at the homes of Users



It is interesting to note that according to Chart 8 below, 63% of the users are primary and secondary students followed closely by unemployed youth who represent 20% of the users and only 2% are small business entrepreneurs. This could reflect the fact that either Nenasalas are located in places that are not accessible by business people or are concentrating more on providing services such as basic training.

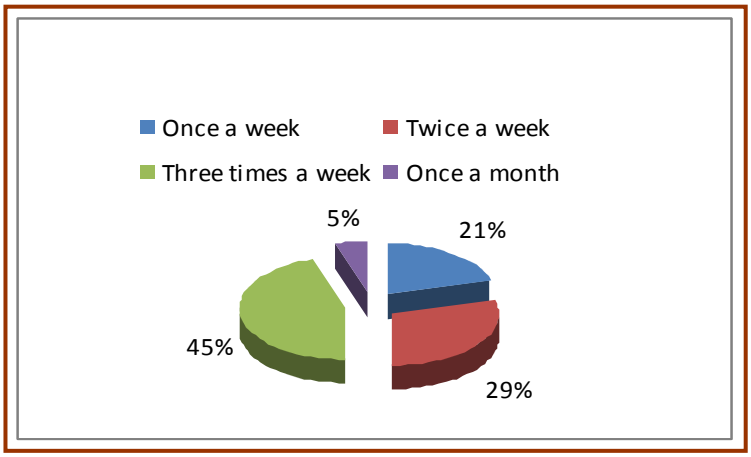
Chart 8: Types of Users and their Employment or Vocation



3.2.2 Usage Frequencies, Services used and offered at Nenasalas

Chart 9: Frequency of Usage of Nenasalas by

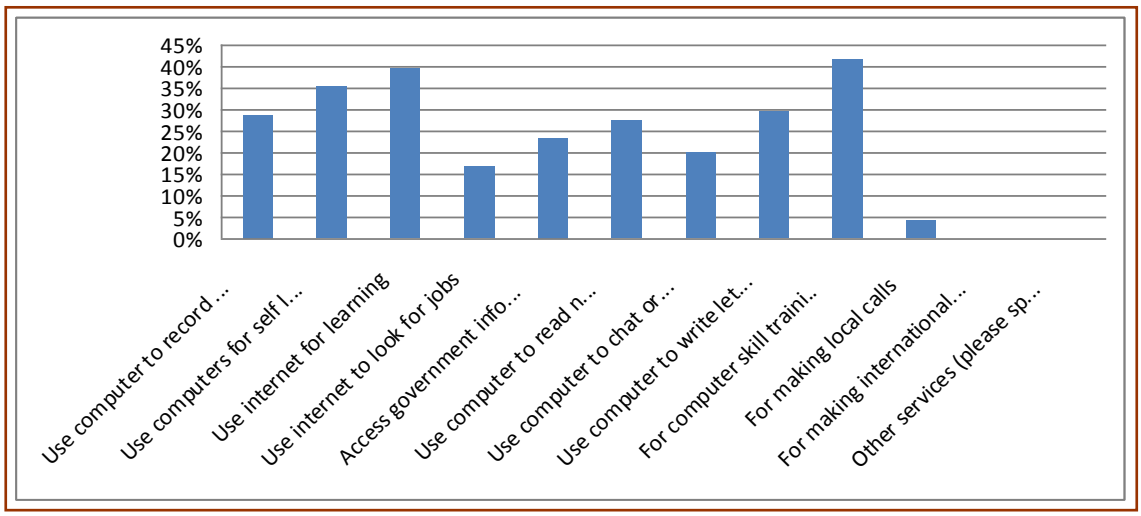
The frequency of use of Nenasalas is quite encouraging. 45% of users visit the centers three times a week, with another 29% and a further 21% using the centers twice and once a week respectively. Only 5% visit once a month.



On further analysis it was found as detailed in the Chart 10 below, a majority of users visit the Nenasalas for computer skills training classes, use Internet facilities for learning purposes, use the computers for self learning thereby increasing their ICT skills and also for documentation purposes such as creating their resumes and drafting letters, etc. Furthermore, 94% were of the opinion that they found the Nenasala to be of more useful over time and have attributed this, in order of preference to improvement of their ICT skills, having got more assistance from the center staff and more services that they were able to obtain at the Nenasala.

Those who said the Nenasala has been of less useful over time indicated lack of computers leading to lesser practical sessions, non-availability of communications facilities such as telephone, fax and photocopy as the main reasons.

Chart 10: Different types of services used/propose to use during visit to the Nenasala

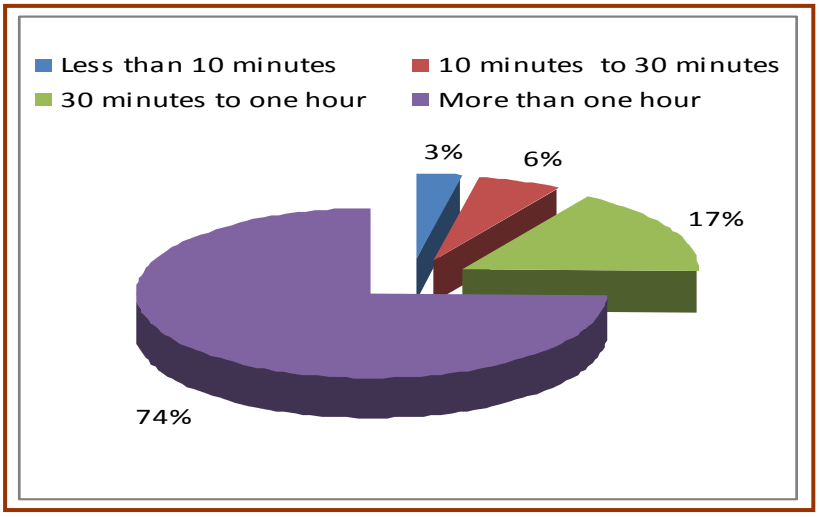


Further analysis on the usage of the Nenasala from the point of view of users show that, 92% indicated that the opening time of the centers were convenient to them and 8% said it was not convenient. These responses are a reflection of the user community shown in Chart 8 (Page 24) where 63% are students and a further 20% are unemployed youth with only a mere 2% being small business entrepreneur. There was no representation from the self employed category.

However, from those who use the Nenasala for different purposes indicated above, Chart 11 indicates that 74% use the facilities at the center per session for over one

hour, another 17% use the center for between 30 minutes to one hour, 6% between 10 to 30 minutes and the balance 3% for less than 10 minutes.

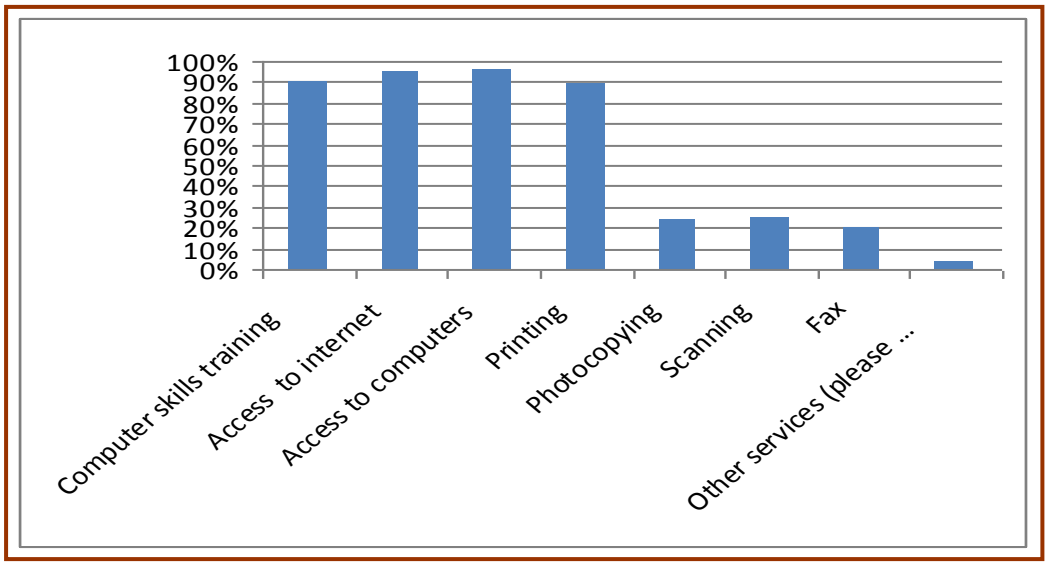
Chart 11: Time spent per session by Users



An interesting finding shown below in Chart 12 is that even though almost all the Nenasalas visited by the enumerators provided services such as computer skills training, access to the Internet, access to computers, and provided services to get printouts, only a few provided communication facilities such as photocopying, scanning and fax services. The absence of such services could have an impact on the sustainability of the centers as these services bring in required funds for the day to day running of the center, provided these centers are operated on a commercial basis.

An important service included in 'Other Services' in the Chart below is the provision of local and international calls. An important finding on the subject of telephone services is that only 4% of the users interviewed made international calls and 12% made local calls at the Nenasalas in the sample. This low figure could be due to the fact that some Nenasalas did not have telephone facilities.

Chart 12: Services/Facilities available at the Nenasalas

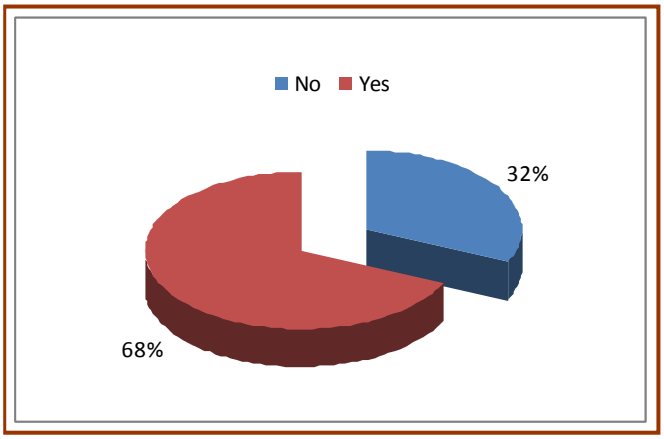


MS Office packages such as Power Point, Word, Excel and Paint, and graphic designing packages including Photoshop, Illustrator, and Corel Draw are the most popular packages used at the Nenasalas. Some of the other lesser used packages include Nero, CD burning software and MS Access.

3.2.3 ICT Skills Training programs and Quality of Training

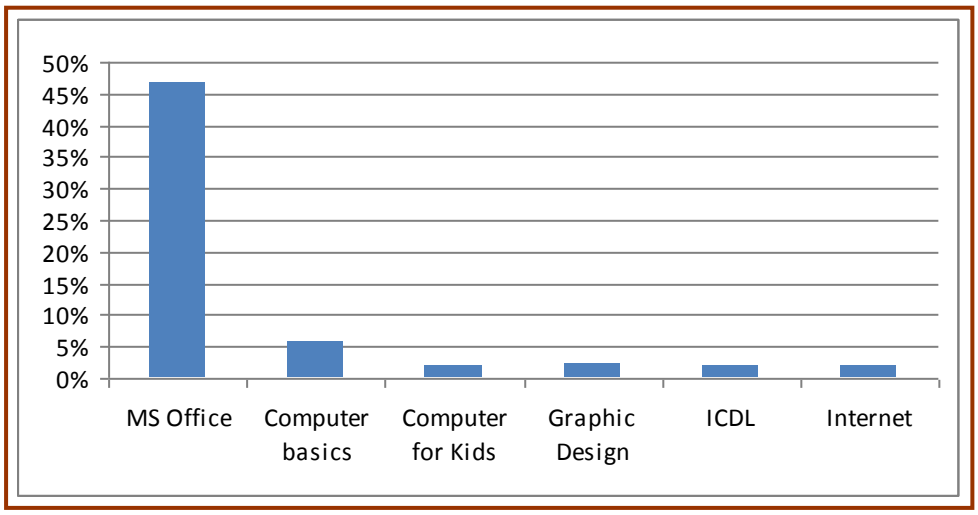
Apart from using other services offered by the centers, as per Chart 13, 68% of the users interviewed indicated having undergone some ICT skills training at the Nenasala and the balance 32% have not. As per Chart 14 below, MS Office package is the most popular training program at these centers.

Chart 13: Percentage Trained at Nenasalas



Other popular training programs in order of preference are Computer Basics, Computer for Kids, graphic designing software packages, International Computer Driving License (ICDL) and on the use of Internet.

Chart 14: Training programs followed by Users at Nenasalas



In response to the question of whether there were enough teachers/instructors at the centers, 82% of those interviewed were of the opinion that there were enough teachers. Almost all the users felt that the quality of the instructors was very good.

3.2.4 The Use of Internet and Price Competition

The introduction of the Internet to rural communities via the Nenasala project has been, in general widely acknowledged and appreciated by the users of these centers. The younger generation especially school children have availed themselves of this facility to surf the Internet under supervision, and download information related to school work.

The general opinion of the user community on Internet speed has been that, according to 89% of the users interviewed considered the Internet speed at the Nenasala to be 'fast'.

A few centers established in religious schools do not allow their students to surf the Internet freely except religious sites. In some cases an age barrier has been imposed with only students over 20 years of age allowed to surf the Internet. Furthermore, in other cases students are allowed to access the Internet during classes or at practical sessions but under strict supervision.

Chart 15: Purpose of using the Internet by Users

The Internet is generally accessed for basic learning and practices, to gather information, read newspapers, send and receive e-mails, downloads, to get examination results and minimally for business purposes.

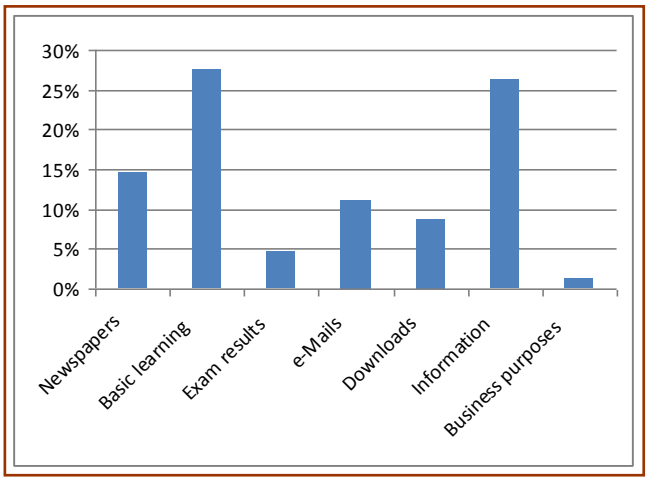


Chart 16 below shows that while 48% of the users say there are other centers in the vicinity providing similar services and 52% felt there were no centers around the Nenasalas, Percentages shown in Chart 17 is a clear indication where 88% felt that prices offered by Nenasalas were lower than other centers in the neighbourhood with only 11% of the opinion that prices of services at Nenasalas were higher.

Chart 16: Availability of other Tele-centers

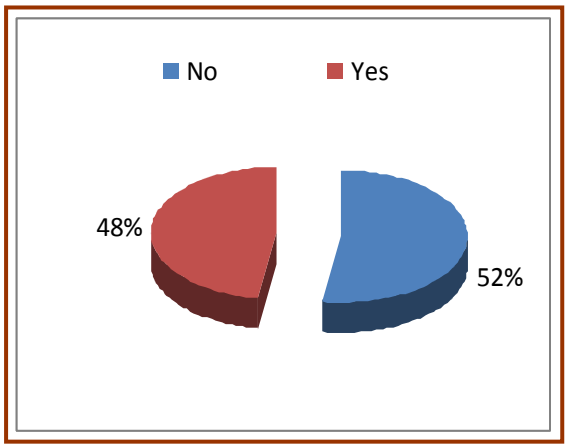
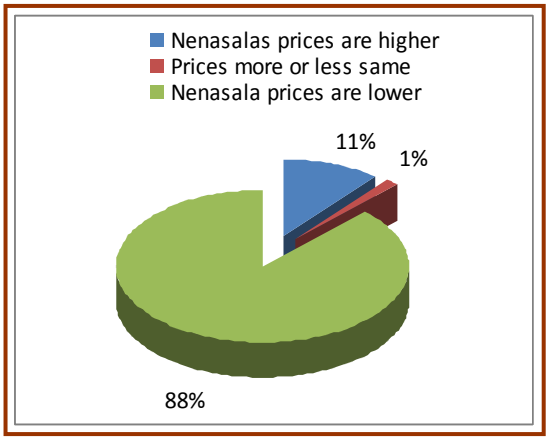


Chart 17: Comparative Pricing of Services



On the question of whether facilities at Nenasalas needed physical improvements, according to Chart 18 below, 49% felt that facilities at the centers were enough and the balance 51% thought improvements were necessary. Some of the facilities required in order of preference as per Chart 19 were, increase in the number of computers, furniture, space, the introduction of communications facilities such as telephone, fax, photocopy and scanning.

Chart 18: Need for Improvements

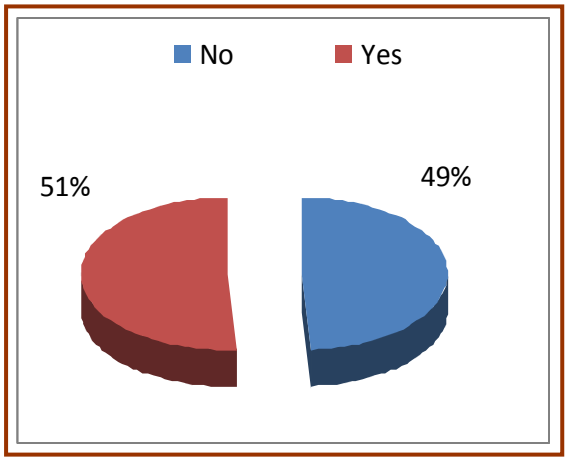
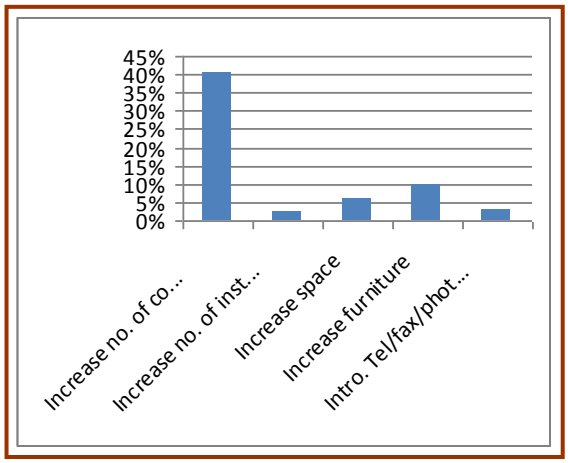


Chart 19: Extra Facilities Required



3.2.5 Social Impact of Nenasala services on Users

On the question of whether services provided at Nenasalas have made a significant contribution to ones' life, 82% of the users interviewed said 'yes', they did. When they were asked how it contributed to their lives, most of them indicated, improvement of general knowledge, learning new skills, access to Government information and services, and the drive to join social/political groups and societies as the main contributions. Interestingly, business oriented contributions such as improving existing business, finding new business opportunities and contacts, and making direct sales have all taken a back seat.

Chart 20: Services that have contributed significantly to the users

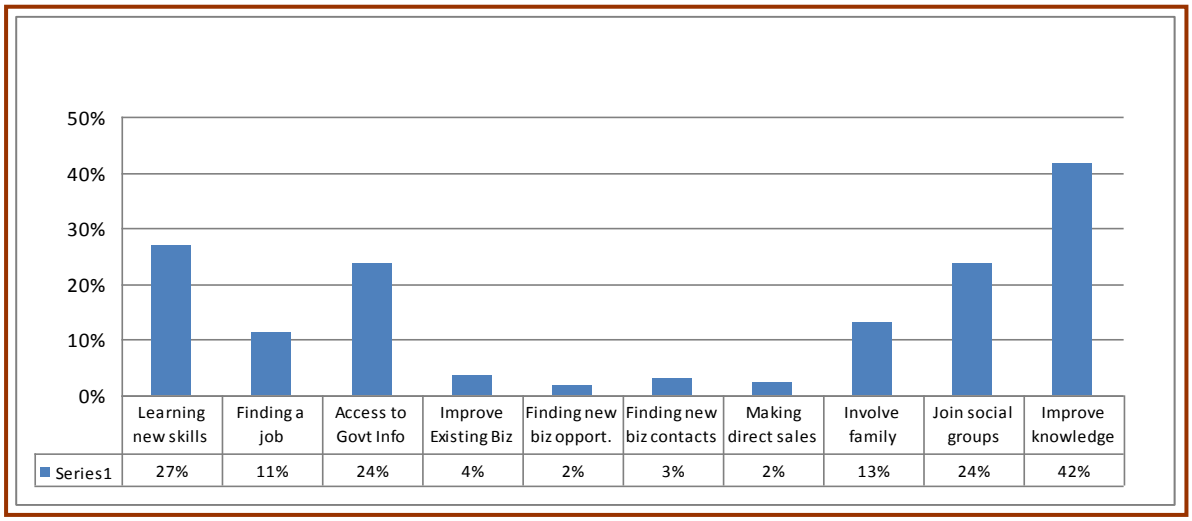
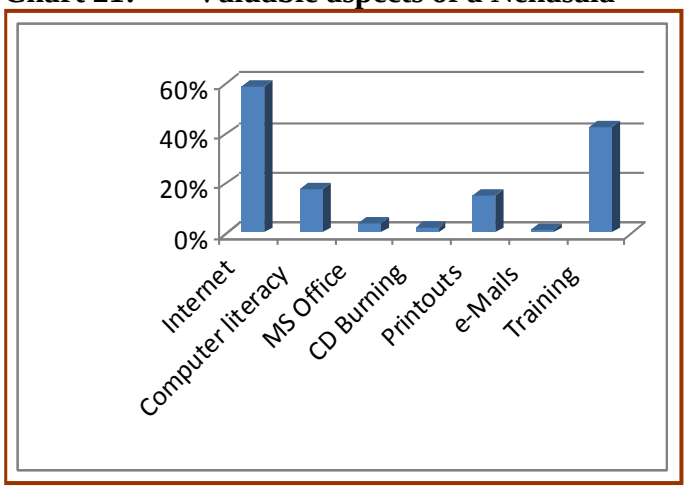


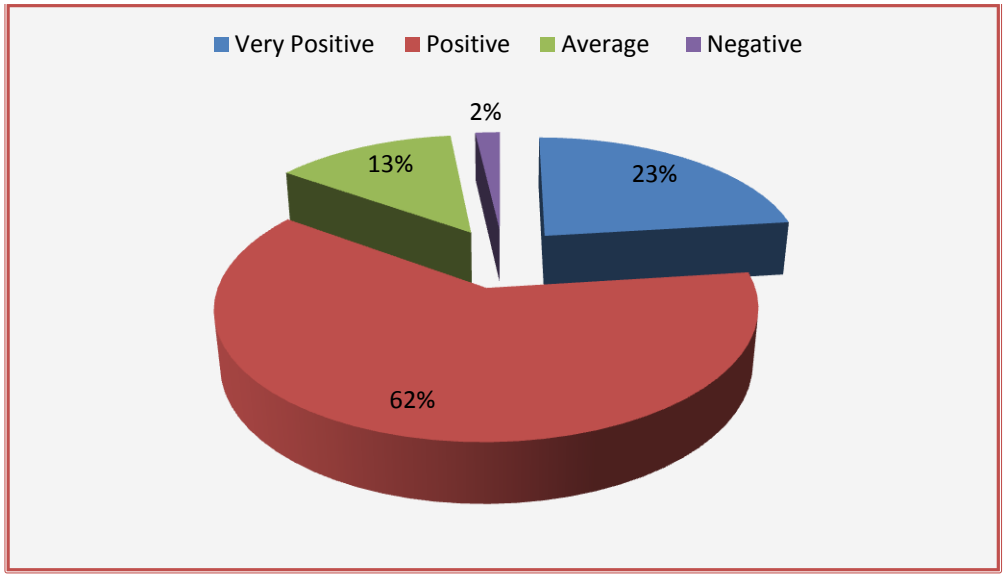
Chart 21: Valuable aspects of a Nenasala



When considering the most valuable aspects of a Nenasala, access to the Internet and training were the most valuable followed by gaining computer literacy and the ability to get printouts. Knowledge of the popular MS Office package was also considered as a valuable aspect of a Nenasala.

Finally, from the user perspective, it was found as per Chart 22 given below, 62% were positive about the performance of the Nenasalas since inception. While 23% were very positive, 13% thought the performance was average and 2% having a negative opinion.

Chart 22: User view of Nenasala Performance since inception



4.0 Limitations of the Survey

1. In general, the implementation of the evaluation survey was constrained due time limitations. During the implementation period, extra visits to centers had to be made in order to get the required amount of users as certain centers, especially those under the community model, were either temporarily closed, non-operating or lacked visitors,.

2. Another constraint that was identified was the time period (Dec 31 to Jan 5) during which the survey was implemented. During this specific time period all schools, both public/private and religious centers are closed as it is generally considered vacation period. Therefore, one of the main reasons for certain centers to be temporarily closed or non-operational was due to the specific time period mentioned above.

3. A majority of the Nenasalas in the sample were located in religious centers and these centers are managed by computer instructors or instructresses. As matters relating to funding and record keeping are beyond their control, in most cases it was not possible to obtain information relating to usage patterns, costs and revenue, etc.

4. Due to the prevailing security situation in the east of Sri Lanka, enumerators faced difficulties in accessing centers located in these areas in order to collect the required data.

5.0 Conclusions and Recommendations

The below stated conclusions and recommendations are drawn based on a mix of qualitative and quantitative evaluation. It is qualitative to the extent that the evaluation was on the one hand based on non-quantifiable data: for example, using open-ended questions, like "Do you believe that the services you have used at the Nenasala have made any significant contribution to your life?", or "Have you found the Nenasala to be more useful compared your previous visit? If so, why?" The data gathered based on informal discussions has been effective in gaining a deeper understanding of how the program has made a difference in the lives of those interviewed. The drawback has been that the conclusions drawn may not be scientifically sound. On the other hand, the evaluation was also based on data that can be counted: for example by asking questions of the type, "Please provide information on the usage time for the last 3 months?", "Please give details of available hardware and software?" The advantage in this case has been in getting to more scientific conclusions. The conclusions and recommendations therefore are:

1. The sample was not evenly distributed between the community and business models with a majority of the centers in the sample coming under the community model.

2. On an average, the numbers of visitors to the centers were found to be low. Thus, it seems that the resources available at these centers are under utilized. It is recommended that the public, especially in the 'catchments areas' are made aware of these centers and the available facilities. It is therefore suggested that the ICTA should encourage Nenasala operators to create awareness about Nenesala activities in the community level focusing on the benefits of using these centers.

3. Within the community model only about 50% of the centers surveyed reported potential sustainability. This implies that at least 50% of the centers either do not have a clear understanding of long term sustainability or with a majority of the centers within the community model being religious centers located in places of worship, the understanding of sustainability could be limited to the fact that

costs related to operating these centers (electricity, rent, etc.) are absorbed by the respective parent institution (temple). The latter could be true if the sustainability criterion varies from a community model to a business model.

However, it is recommended that a program be initiated to make these centers aware of self sustainability and provide the necessary guidelines/training in this direction including the organizing of regional study tours to countries such as India. It is very encouraging to note that about 90% of centers under the business model are certain about their long term sustainability.

4. Most of the Nenasalas within the sample offer training programs for the public and these have been highly appreciated. However, it was found that these training programs are mostly centered on MS Office. Hence, it is recommended that in addition to MS Office, training programs with generally accepted standards should also be conducted in areas such as hardware and ICDL. In fact these programs should reach up to the level of offering national level programs so that government/ industry can request for these qualifications during job recruitments.

5. Having about 15% non-functioning computers in the centers indicates the level of unsatisfactory vendor after-sales services, and inadequate monitoring on the part of ICTA. Hence it is recommended that a central monitoring system on suppliers be implemented. It is also evident that there is no vision on maintenance aspects of the equipment in the centers after the post-warranty period. Therefore, technical assistance should be provided to develop long term plans for each Nenasala keeping in mind the impact on sustainability.

6. It was found that operating systems used in almost all the centers in the sample are Windows operating systems. It is suggested that efforts be also made to simultaneously introduce open source operating systems.

7. There were hardly any records maintained on usage patterns, costs and revenues. It is important to maintain such records in order to monitor the progress of Nenasala centers. As such, it is recommended that follow up training programs

for Nenasala operators be organized and conducted by ICTA and in collaboration with other related organizations. It is also suggested to conduct refresher courses for operators not only on the operation of Nenasalas but also on effective record keeping and management.

8. Most of the centers in the sample, especially those under the community model do not have communications facilities. It is recommended that telephone facilities be made available in all centers as this service is considered a potential income generator that would help in sustaining the center.

9. With respect to accessing government information on the websites, awareness on the availability of such government websites should be widely publicized. So far people use the Internet to access the gazette, exam results, general information, etc. Efforts should be made to encourage the downloading of applications and other relevant information. Government institutions should also publicize and encourage the public to use the information available on their respective websites.

   As there is an urgent need for valid data from these centers for the purpose of effective monitoring and evaluation, every effort should be made to encourage and assist operators to maintain proper records at all levels by the introduction of simple manual systems that should evolve with assistance towards an online monitoring system.