CHAPTER 4 IMPLEMENTATION, EVALUATION AND FEEDBACK OF MAINTENANCE AND REPAIR

4.1 Operation and Maintenance

(1) Operation and Maintenance Activities at the Site

The computer system, network infrastructure, software applications and home pages of RICs should be well maintained to assure the provision of smooth services with minimal interruption. The Study Team employed monitors who operate the computer and the network system in RIC. The works of the monitors are shown below.

(a) The daily operation of the monitors

- Power on and power off the system (computer system and network system)
- Monitoring of the system

(b) The system failure management

- Whenever failure is detected, the contracted maintenance service company should be informed for repair. The date when the service company was informed and the time spent in repair should be recorded.
- Keeping repair reports
  It is necessary to keep repair reports for about two years so that they will be useful for later repair work.

(c) Computer resource management

- Monitoring and management of available hard disk space
  It is necessary to delete useless data in the file regularly.

(d) Maintenance of the Application Software

- The application software is updated from time to time to expand and change software functions.

(2) Management of the Operating System

- Telekom Sales and Services updates the Operating System (Windows XP) periodically,

(3) Maintenance of the homepages and the Greeting Card

Taskforce members who took the taskforce training carry out the works shown in the following.

- Updating the homepage and the contents of the greeting card periodically.
- Data input for updating the homepages and saving the updated data files on CDs periodically.

(4) Other

(a) Storage management of the CDs and manuals related to off-the-shelf software

(b) Inventory management of the consumables
The number of consumables should be always monitored and recorded in an inventory book as shown below.

Inventory Book

Date	Warehousing	Delivery	Remaining Stock Inventory	Name and Signature

(5) In order to carry out the above-mentioned monitoring and maintenance activities, the following arrangement was made.

Concluding a maintenance contract for the computer and the wireless LAN with appropriate service companies. The names of the service companies are as follows.

- Computers in 3sites: Telekom Sales and Services
- Wireless LAN in Kota: ROOT Wireless Solution

(6) Management of passwords

The following three kinds of passwords are used to protect RIC computer system security. Also, a supervisor to protect the passwords is required.

- Log on TMnet password
- Password to update Kota Marudu homepage
- Greeting Card Password

To protect the password security, the supervisors were limited to the following people.

(a) Supervisor of Sg. Air Tawar RIC

- One supervisor

- Two sub supervisors

(b) Supervisor of Bau RIC

- Supervisors: Taskforce Members

(c) Kota Marudu

- Supervisor: District Officer
- Two sub supervisors: A secretary of the District Officer and a monitor

4.2 Performance of Maintenance and Repair

(1) Failure Log Sg. Air Tawar

The failure log of Sg. Air Tawar is shown below.

1	Service Start date	Sep. 6 2002
2.	Failure Log	3 computers have been in successful operation since Oct. 4. 2002
(1)	Date of Failure Detection	None
(2)	Date of Informing the Maintenance Company	
(3)	Symptoms	
(4)	Date of Repair	
(5)	Cause of Failure	
(6)	Nature of Repair	

(2) Failure Log of Bau

The failure log of Bau is shown in the following table.

Failure Log

1	Service Start date	Aug. 27 2002
2.	Failure Log	
2.1	Date of Failure Detection	
(1)	Date of Informing the Maintenance Company	Oct. 15、2002
(2)	Failed Equipment	PC 2
(3)	Symptoms	PC2 had been unable to boot up. After booting message when turning on the PC, a 'STOP 0x000000ED Error' message had appeared and the PC had not booted up
(4)	Date of Repair	Oct. 18 2002
(5)	Cause of Failure	Problem with Windows XP
(6)	Nature of Repair	1. Boot up using Windows XP (bundled w/ COMPAQ PC) 2. Start 'Recover Console' 3. Run 'chkdsk /r' command. 4. Reboot Recovery by JICA Study Team
2.2	Date of Failure Detection	Oct. 16 2002
(1)	Date of Informing the Maintenance Company	Oct 16 2002
(2)	Failed Equipment	PC 3
(3)	Symptoms	MODEM can not be detected by control panel
(4)	Date of Repair	Oct. 28
(5)	Cause of Failure	Modem Card in PC failure
(6)	Nature of Repair	Exchange of Modem card
2.3	Date of Failure Detection	Oct. 18 2002
(1)	Date of Informing the Maintenance Company	Oct 18 2002
(2)	Failed Equipment	PC 4
(3)	Symptoms	Modems can not be detected by control panel
(4)	Date of Repair	Oct. 28
(5)	Cause of Failure	Modem Card in PC failure
(6)	Nature of Repair	Exchange of Modem card
2.4	Date of Failure Detection	Oct. 19 2002
(1)	Date of Informing the Maintenance Company	Oct 19 2002
(2)	Failed Equipment	PC 5
(3)	Symptoms	MODEM can not be detected by control panel
(4)	Date of Repair	Oct. 28
(5)	Cause of Failure	Modem Card in PC failure
(6)	Nature of Repair	Exchange of Modem card

(3) Kota Marudu

Failure log of Kota Marudu is shown in the table below

Failure Log

1	Service Start date	Sep. 11 2002
2.	Failure Log	
2.1	Date of Failure Detection	Oct. 3 2002
(1)	Date of Informing the Maintenance Company	Oct.3 2002
(2)	Failed Equipment	PC 2 in Post Office
(3)	Symptoms	PC 2 had not been able to access the Internet
(4)	Date of Repair	Oct.11 2002
(5)	Cause of Failure	A modem card in PC 2 failed
(6)	Nature of repair	Exchange a modem card in PC
(7)	Maintenance Service Company	Telekom sales and service
2.2	Date of Failure Detection	Oct. 15 2002
(1)	Date of Informing the Maintenance Company	Oct. 15 2002
(2)	Failed Equipment	PC 4 in Library
(3)	Symptoms	When the power to the PC was turned on, PC went into a power failure condition.
(4)	Date of Repair	
(5)	Cause of Failure	UPS and Power supply of PC failure
(6)	Nature of repair	
(7)	Maintenance Service Company	Telekom sales and services

(4) Measure of reliability and maintainability for computers and devices in RIC

MTTR and MTBF are two essential parameters that show reliability and maintainability of a system, equipment, etc. They are a commonly used variable in reliability and maintainability analyses.

MTTR (Mean Time to Repair) is an essential parameter that shows maintainability of a computer. It is calculated by the following expression.

MTTR= Total time to repair / Number of failures

MTBF (Mean Time Between Failures) is a basic measure of reliability for repairable items. It can be described as the number of hours that pass before a piece of equipment, a computer, or a system fails. It is calculated by the following expression.

MTBF= Total operational time-Total time to repair / Number of failures

(a) MTTR and MTBF of Sg. Air Tawar

Total operational time (Includes week ends and national holidays: Sep. 6 − Oct.30 = 55 days

	PC	Operational Time (days)	Number of Failures	Total time to repair (days)	MTTR (days)	MTBF (days)
1	PC 1	55	0	0	0	55
2	PC2	55	0	0	0	55
3	PC3	55	0	0	0	55

(b) MTTR and MTBF of Bau

Total operational time (Includes week ends and holidays: Aug. 27−Oct. 31= 64 days

MTTR and MTBF

	PC	Operational Time (days)	Number of Failures	Total time to repair (days)	MTTR (days)	MTBF (days)
1	PC 2	64	1	3	3 / 1=3	64 -3 / 1=61
2	PC3	64	1	12	12 / 1=12	64 -12 / 1=52
3	PC4	64	1	10	10 / 1=10	64 -10 / 1=54
4	PC5	64	1	9	9 / 1=9	64 – 9 / 1=55

(c) MTTR and MTBF of Kota Marudu

MTTR and MTBF

	PC	Operational Time (days)	Number of Failures	Total time to repair (days)	MTTR (days)	MTBF (days)
1	PC 2	50	1	8	8 / 1=8	50 -8 / 1=42
2	PC4	44	1	16 Over	16 / 1=16	44 -16 / 1=28

4.3 Verification of Maintenance and Repair

(1) Maintenance conditions of each site

On Site Maintenance was provided to Bau and Sg. Air Tawar, which are within 50 km of the service centers of the service company responsible for the RICs computer maintenance. On the other hand, Off Site Maintenance was offered to Kota Marudu, which is 50 km or more from the service center. Off Site Maintenance means that the service center staff picks up the equipment and delivers the repaired equipment back to the customer.

(2) Performance of Maintenance Service

(a) Bau

- It took 12 days to replace faulty modem card , which is too long for this easy repair work.

(b) Kota Marudu

- Failure of the power supply of computer in Library
- The repair of the power supply took more than 15 days since the failure was reported.

(3) Problems of Maintenance and Repair

The performance of the service company is very slow as was mentioned above.

The required improvement from the service company is shown as follows.

(a) On Site Maintenance

- A maintenance engineer should attend and resolve the fault within two days after receiving the report.

(b) Off Site maintenance

- Staff should come to take the faulty equipment within two days after the report is received.
- Report on completion of the repair to the customer
- Submit the repair report to the customer

CHAPTER 5 DEVELOPMENT, EVALUATION AND FEEDBACK OF WEB CONTENTS

5.1 Outline

As seen in experiences in advanced countries, providing local news and educational information in rural Internet activities is essential to promote community development. The results of a needs survey by the Study Team also shows that residents are interested in local news and educational information.

To develop the web contents along with the above needs, a system to collect and upload the local information was designed. In addition to ordinary web pages created simply with web page building software, the contents for e-reservation, e-public comment and e-greeting card were prepared. To activate the latter contents, using an e-mail function is necessary because the reply and greeting card are received by email.

In the design of web contents, integration with an e-mail function was considered to enhance the local news and educational information dissemination. The following viewpoints were addressed in the development of web contents.

- Mailer software should be Web Mail (using browser).
- A standard mail form must be prepared to permit easy sending.
- Local news must be gathered from residents.
- Some application programs have to be prepared like e-Greeting Card and an e-Reservation system.

Since PC ownership ratio and the status of broadband availability in rural areas of Malaysia are different from the ones in advanced countries, systems to be applied should be in accordance with local circumstance. The following table shows the basic conditions to meet local circumstance. It was confirmed that down loading of the html files including the local homepages developed for the Model Project, can be done within reasonable time length by means of the existing telephone line, speed of which is up to 56 kpbs.

Items		Basic Conditions	
System	Location of web server	NETMYNE	
	Access Speed	56kbps via Existing Telephone line	
	File Volume per page:	• 20KB-30KB (without image files) • 100KB (with image files)	
	Page control:	• Active Server Page (ASP) for MS Windows 2000 • Common Gateway Interface (CGI) for UNIX or Linux	
	Other functions	• e-mail Sending function • a pop-up message function	
Web Contents		1) JICA homepage *(www.idesa.org.my)*	10 pages
		2) RIC Common homepage *(www.idesa.org.my/ric/)*	10 pages
		3) Sg. Air Tawar RIC homepage *(www.sgairtawar.idesa.org.my)*	10 pages
		4) Bau RIC homepage *(www.bau.idesa.org.my)*	10 pages
		5) Kota Marudu RIC homepage *(www.kotamarudu.idesa.org.my)*	10 pages

In this section, the prepared homepage, the applied mailing function, and the technology to make the web page function are mentioned.

5.1.1 Contents of the Homepages

(1) Hierarchy of homepages

Homepages prepared in the model project have a hierarchy as shown in Figure III.5.1. Besides the homepages of each RIC, an RIC common home page was prepared to introduce the outlines of RIC.

(2) JICA homepage (www.idesa.org.my)

The JICA Study Team prepared a homepage to provide information about the Study Team's activities in the Rural Internet Program promoted by MECM.

The homepage was prepared and opened by the Study Team at the beginning of the Model Project. Initially, the contents of the "Inception Report" were open to the public. After the launching of the homepage, it was updated monthly until the end of the Study.

The homepage were written in English and Malaysian language ("Bahasa Malaysia").

Web-Pages	Contents
1) Outline of the Study	Background of the Study Target Year of the Study Objectives of the Study Study Area Approaches for the Study Main Study Items Plan of Operation
2) Team's Activities	Periodical Topics about the Team's Activities
3) Study Team Members	Introduction of each team member and his position and tasks
4) Study Results	Results from the various works and analysis
5) Contact Address	Contact address of the Study Team
6) Links	Links related with the Study

The pages have the following tree structure.

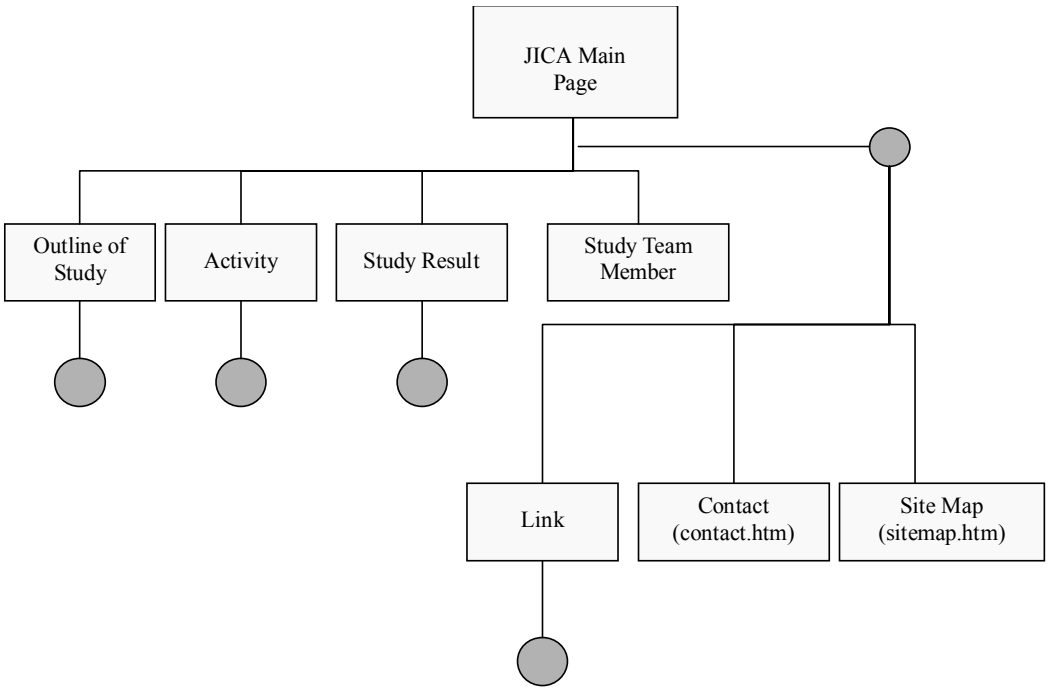

Figure III.5.2: Tree Structure of the JICA Homepage

Top page of JICA Site is designed as shown in the following figure.

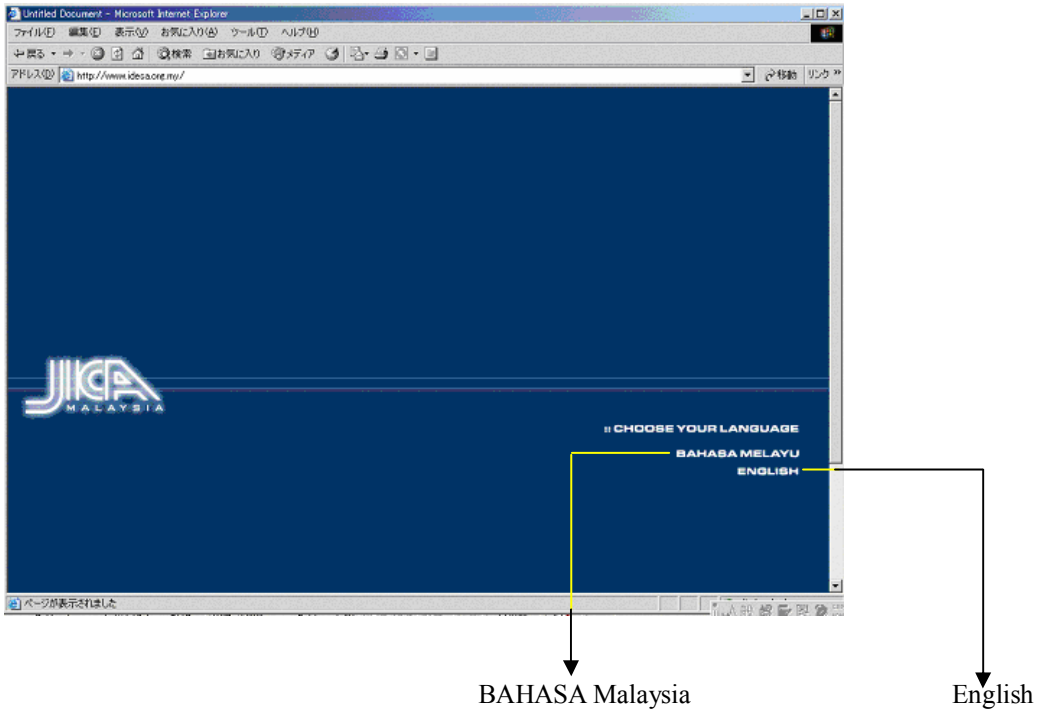

Figure III.5.3: Top Page of JICA Homepage

(3) RIC Common Homepage (www.idesa.org.my/ric/)

Each model RIC has a common homepage (three RICs initially). The menu and its description are shown in the table below. The outline of RIC is introduced in this page.

Web-Pages	Contents
1) RIC concept and role	basic concept of RICs and role of RICs
2) Government policy for the RIC	policies on support for the RIC project
3) History and organization of RIC	foundation and organization of the RICs
4) Available service menu	services available to the users and to be available in the future
5) Map	a map leading users to each RIC page by clicking
6) RIC related photographs	photographs related with RIC
7) Public comments and greeting mail	comments, complaints, advice to RIC
8) Links	links to each RIC
9) e-Greeting mail	sending function of message card with photo and illustration
10) Links	links to useful web sites

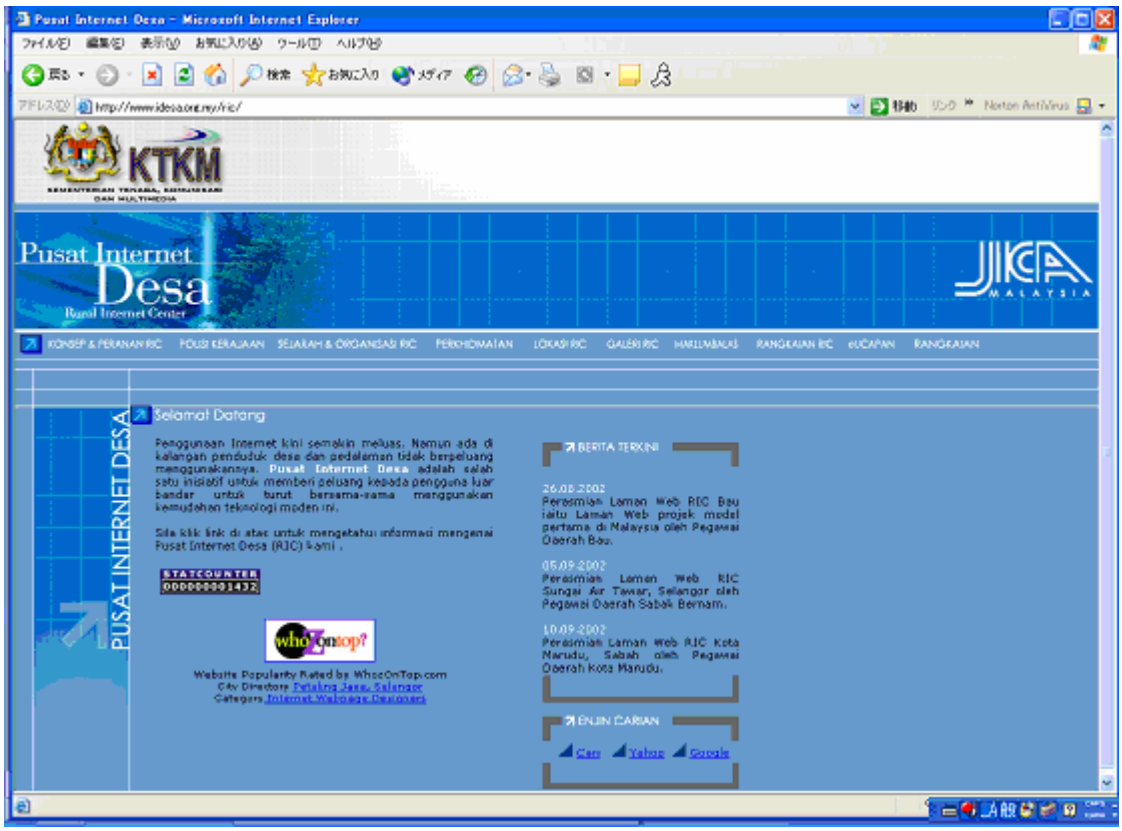

Figure III.5.4: Top Page of RIC Common Homepage

Figure III.5.5: Top Page of RIC Common Homepage at Sg. Air Tawar

(4) Homepage at each RIC

The purpose of this study is to examine how RIC activity can be activated. According to the demand survey, there is a need for local news and educational information while most of the respondents have TV and newspapers. This need can be met through the development of a web site built at each RIC.

- Sg. Air Tawar RIC www.sgairtawar.idesa.org.my/
- Bau RIC www.bau.idesa.org.my/
- Kota Marudu RIC www.kotamarudu.idesa.org.my/

A basic Service Menu for a homepage includes the following;

Web-Pages	Contents
1) Local News	local news by residents, and local government news
2) Public news	public news such as local events
3) What's New and Events	local happenings and events
4) Education	information on schools in communities nearby
5) Organization	introduction of the organization of RIC Committee
6) Map	a map of area surrounding an RIC
7) Special Products	information on special products of the communities
8) General Information	tourist information, accommodations, restaurants etc.
9) Gallery	photographs of communities
10)Public comments	comments, complaints, advice to RIC
11)Greeting mail	sending of message cards with photos and illustrations
12)e-reservation	reservations for meeting rooms and sports facilities in a community

Note: *e-reservation function was introduced only for Bau RIC

The following flow chart shows how information from residents and local news can be incorporated into the Web Contents.

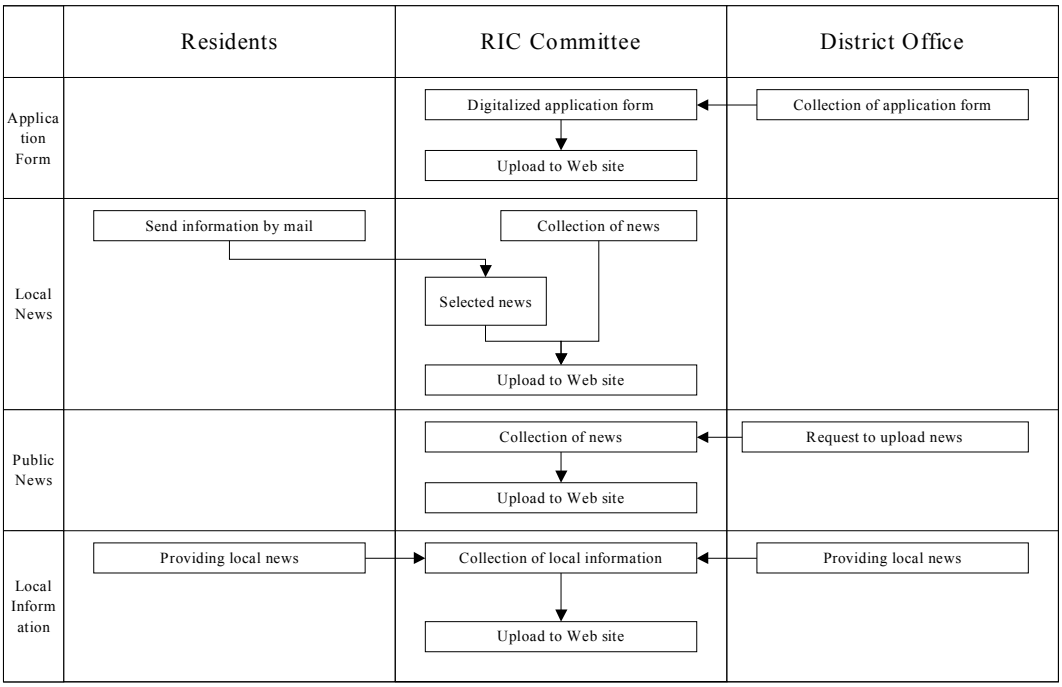

Figure III.5.6: Information Flow of Local News

(5) Links with Related Sites

The aim of the RICs is the enhancement of info-communication access in rural areas, so related information should reflect this aim. From the point of view, the links must be useful for users. Web site links to be placed on the RIC link page were selected by the JICA study team considering for residents' needs. Related information, such as additional links, was added by RIC committee members after training by the Study Team while the Team was in Malaysia.

No	Ministry	Description	Website address
1	Kementerian Pertanian Malaysia / Agrolink	This link is for the Ministry of Agriculture	http://agrolink.moa.my
2	Kementerian Tenaga, Komunikasi dan Multimedia	This link is for the Ministry of Energy, Communication & Multimedia	http://www.ktkm.gov.my
3	Kementerian Kerja Raya Malaysia	This link is for the Ministry of Works	http://www.kkr.gov.my
4	Kementerian Kewangan Malaysia	This link is for the Ministry of Finance	http://www.treasury.gov.my
5	Kementerian Pertahanan Malaysia	This link is for the Ministry of Defence	http://www.mod.gov.my
6	Kementerian Perdaganan Dalam Negeri dan Hal Ehwal Pengguna	This link is for the Ministry of Domestic Trade And Consumer Affairs	http://www.kpdnhq.gov.my
7	Kementerian Pendidikan Malaysia	This link is for the Ministry of Education	http://www.moe.gov.my
8	Kementerian Pembangunan Usahawan	This link is for the Ministry of Entrepreneural Development	http://www.kkr.gov.my
9	Kementerian Luar Negara	This link is for the Ministry of Foreign Affairs	http://www.kln.gov.my/
10	Kementerian Kesihatan Malaysia	This link is for the Ministry of Health	http://www.moh.gov.my
11	Kementerian Dalam Negara	This link is for the Ministry of Home Affairs	http://www.kdn.gov.my
12	Kementerian Sumber Manusia	This link is for the Ministry of Human Resources	http://www.jaring.my/ksm/
13	Kementerian Penerangan Malaysia	This link is for the Ministry of Information	http://www.kempen.gov.my
14	Kementerian Perdagangan Antarabangsa dan Industri	This link is for the Ministry of International Trade and Industry	http://www.miti.gov.my
15	Kementerian Tanah dan Pembangunan Koperasi	This link is for the Ministry of Land and Cooperation Development	http://www.ktpk.gov.my
16	Kementerian Perpaduan Negara dan Pembangunan Masyarakat	This link is for the Ministry of National Unity and Social Development	http://www.kempadu.gov.my
17	Kementerian Perusahaan Utama Malaysia	This link is for the Ministry of Primary Industries	http://www.kpu.gov.my
18	Kementerian Pembangunan Luar Bandar	This link is for the Ministry of Rural Development	http://www.kplb.gov.my
19	Kementerian Sains, Teknologi dan Alam Sekitar, Malaysia	This link is for the Ministry of Science, Technology and the Environment	http://www.moste.gov.my
20	Kementerian Pengangkutan Malaysia	This link is for the Ministry of Transport	http://www.mot.gov.my
21	Kementerian Belia dan Sukan Malaysia	This link is for the Ministry of Youth and Sport	http://www.kbs.gov.my
22	Info Desa	The "Medan Infodesa" programme which provides training and hardware to rural communities by the Ministry of Rural Development	http://www.desa-com.com/
23	e-Bario	Communities in Sarawak to have equal access to ICTs,	http://www.unimas.my/ebario/
24	Sekolah Bistari	The Malaysian Smart School	http://www.moe.edu.my/
25	Mobile Internet	MIMOS's Technology Research Group capitalises on MIMOS's advanced Information and Communications Technology (ICT)	http://www.mimos.my/
26	e-Pendidikan	First education portal that aims to support and prepare educators for the e-learning environment,	http://www.cikgu.net.my/

5.1.2 E-mail

Users have to send e-mail by Web Mail where PCs with e-mail software such as Outlook Express are not available. PCs with e-mail software are available at the model project sites, but Web Mail was used instead of e-mail through the software. It is for securing users' privacy because all PCs are shared by an unspecified number of persons in the model project site. To activate the public comment and greeting mails in the web page, users need to send the comments or receive the greeting mails by email.

In order to ensure that residents have easy access to communication, supporting activity to enable residents to have free Mail addresses was extended implemented. Since Free Mail does not have any financial charges, provision of free mail addresses to residents should be easily extended over the area serviced by the RICs.

Although acquisition of a Free Mail account is relatively simple, PC and Internet beginners may have an impression of some difficulties in its operation. To solve the difficulty, the Model Project held workshop in the initial stages to introduce Free Mail addresses to the residents. This workshop was conducted by joint effort of RIC members and MECM with the support of the Study Team.

5.1.3 Application Software and Applied Technology

(1) Application Software

To apply and adapt to the e-Government system and realize a knowledge based society in the rural communities in the future, application software for e-reservation and public comments on RIC was developed and tested.

The following software was built.

(a) e-Reservation

Reservations for badminton courts or other facilities will be available on this page under the following conditions. The administrator who is in charge of handling reservation must be involved. The administrator must have a PC and be able to receive e-mail from subscribers. The administrator must have a subscription book that is under his control. He must check the subscription mail and the subscription book and then reply to the subscriber. The administrator can use a template, which can be used as a fill-in form. After filling in the vacant cells of the template, clicking the send button will upload the form and update an html file that shows the schedule list.

(b) Public comments on RIC

Residents can send comments on the RIC using this page which provides a frame for writing comments and a send button to make it easy to send.

(c) Templates

(i) Template for e- Reservation

This is a template for the administrator who is in charge of handling reservations, as described above. It will make it easy to update html files for applicants who can then see whether or not a reservation has been made by visiting the updated page.

(ii) Template for Greeting Mail

An RIC committee member can update the Greeting Page photos using this template.

(2) Technology

(a) Development of COM (Component Program)

The purpose of development of a component program is to control showing the web page, accessing data bases, and providing an e-mail function.

The integration of a component program on the ASP (Active Server Page) enhances the functions of the ASP with regard to the following points.

- Security
  The component program enhances the security of the ASP. Because it can protect the scripts and HTML code on the ASP against modifying them, while the ASP itself cannot offer this protection. It also prevents hackers from breaking into security holes in IIS (Internet Information Server) that exposes passwords to critical resources by compiling your code into a DLL (Dynamic Link Library). Thus it keeps them safely secure from prying eyes. As such, the possibility of changing the web page by hackers is very low.
- Speed
  Automatic Variable & Array declaration and unused variables are removed.

  It provides directives for use within your ASP source code for variable & procedure type casting and include handling.

It consolidates virtual includes and single code modules.

It provides faster download times by removing extra spaces and carriage returns from HTML output for and faster development.

No need to code everything in VB - use ASP to model and then compile into Visual Basic for speed and distribution.

Install and test without restarting IIS with the XDE Object Setup Utility.

- Stability
  Com components was installed under Microsoft Transaction Server (MTS) for greater scalability and distributed processing. Typically users can expect to handle four times the load over plain asp.

(b) Database technology

A database has been employed for the purpose of storing the page data and e-Reservation application. The data comprising a web page can be stored in the database for easy control of the pages. For instance, displaying the image frames, when only the data in the displayed frame must be changed, can be easily handled. The e-Reservation application is a typical application for a data base system. It makes more sense to think about employing database systems when discussing the e-Reservation application. The reason MsAccess database was selected is compatibility with the server's OS (Operating System) which is MS Windows 2000 at NetMyne site.

5.2 Performance

Generally speaking, performance of website is defined in terms of cost performance or degree of completion for the prior goals. The number of accesses to the site should be an important factor. Tables III.5.1 to III.5.3 show number of accesses for each web sites.

On the average, one RIC user accessed 1 to 2 pages of the individual local homepages, showing strong interest of the users. In Kota Marudu, public news is the most popular page with the access of 131, followed by 112 for photo gallery, and 111 for local news. In Sg. Air Tawar, Public news is also the most popular page with the access of 93, followed by 81 for local new while in Bau, the local news is the most popular page with access of 62, followed by 53 for photo gallery.

5.3 Evaluation and Feedback

5.3.1 Evaluation of the Completed Web Site in terms of the Basic Conditions of Web Site Building

Basic Conditions for evaluation of building a web site are shown below.

(1) Line Speed: 56 kbps Existing Telephone line had to be used

No reliable information exists on the actual speed of this connection however, it can be concluded that the speed is enough to show a screen and for operation of a PC connected to the Internet.

(2) The volume of each page is usually less than about 20kB-39kB but pages that have photos may be up to 100 kB

The following specifications must be met in compliance with the prior presented Basic Conditions.

(3) Some of the buttons on the page should have pop-up message functions

(4) An e-mail sending function, which will need some CGI script should be provided

(5) Page control should be written in Active Server Page (ASP)

Page control should be written in Active Server Page (ASP), which means MECM will have to use an MS Windows 2000 based platform. However, if MECM uses a UNIX or Linux based machine as a Web server, page control should be written using the Common Gateway Interface (CGI) Program in an appropriate language.

5.3.2 Evaluation of Number of Access to the Web Page

The number of accesses to the web page is shown in section 5.2.

Though the data shown are only for one month, October 2002, the total access can be approximated by examining the number of accesses of the three-model sites.

All pages record the access history and this can be found for every day for the three sites despite the short time of operation of the model site.

Kota Marudu showed more accesses than the other two sites. The Public News page had 131 accesses, the Photo gallery page had 112 accesses and the Local News had 111 accesses in a month.

The other pages had 40 to 60 accesses in average in the same period.

It can be concluded from the above that contents selection was quite reasonable for the RIC Web contents, and at the same time it shows us the high degree of satisfaction of the residents.

5.3.3 Feedback for RIC

The Study Team has discovered several solutions to expanding the RIC project through our experience with the existing model project as follows;

(1) Enhancement of Mailing function

It is obvious that a mailing function is essential for the RIC, which should be a basic function for any of the activities. The function has to be enhanced by employing its own SMTP which can issue the mail address for the residents.

Yahoo mail or Hot mail (Web mail) are used in existing RICs but both kinds of web mail have very slow response and because they are free of charge access can be sporadic preventing resident e-mail service.

(2) Career Service website

A Career Service website is most desirable to the RIC because rural areas have a lack of available job information and this is compounded by a lack of educational information. It might be needed that job description and educational information are uploaded to the home page.

(3) Enhancement educational information service

The existing RIC homepage links to the Government prepared educational sites. In addition, it must be enhanced to connect to other civilian educational sites.

CHAPTER 6 IMPLEMENTATION, EVALUATION AND FEED BACK OF IT TRAINING

6.1 Outline

6.1.1 Overview

(1) IT Training

For enhancing info-communication access in rural communities through the RICs, it was considered to be important to give the local people not only hardware and software, but also the opportunity to become familiar with PCs and the Internet. IT training seemed to be able to give people the chance to have direct contact with computers and help to increase IT-literacy in rural communities. Considering the status of the three Model Sites before the start of Model Projects, the following things seemed to be important:

- The training level had to be adjusted to beginner's level.
- Educational material had to be written in the Malaysian language.
- The training had to give people the chance to have direct contact with PCs one by one.

IT training targeted people in two categories, depending on their role in the RICs. One category was the members of the Model RIC Committees and the other was ordinary residents in the community.

(2) Training for Ordinary Residents

The Study Team offered elementary IT-training for each Model Site. The training was focused on the common citizens and the RIC Committee members.

(a) Setting of Knowledge Level and Skills in IT-Training

It was considered that the following knowledge and skills were necessary for common citizens to use PCs and/or the Internet. They are classified in the Table below.

Classification of the level to use PCs and/or the Internet

Skill Level	Ability	Learning Method	
Level-5	To compose and receive E-mail	Course-2	Self-Tutorial CD
Level-4	To select useful homepages		
Level-3	To use Search Engines		
Level-2	To view homepages		
Level-1	To use Keyboard and Mouse on Windows OS	Course-1	

(b) Planned IT-Training for Common Citizens

The following training was prepared for common citizens in the Model Project.

- "IT-Short Course" (Fixed-time short course)
- "Self-Learning at RIC" (Flex-time training with Self-Tutorial CD)

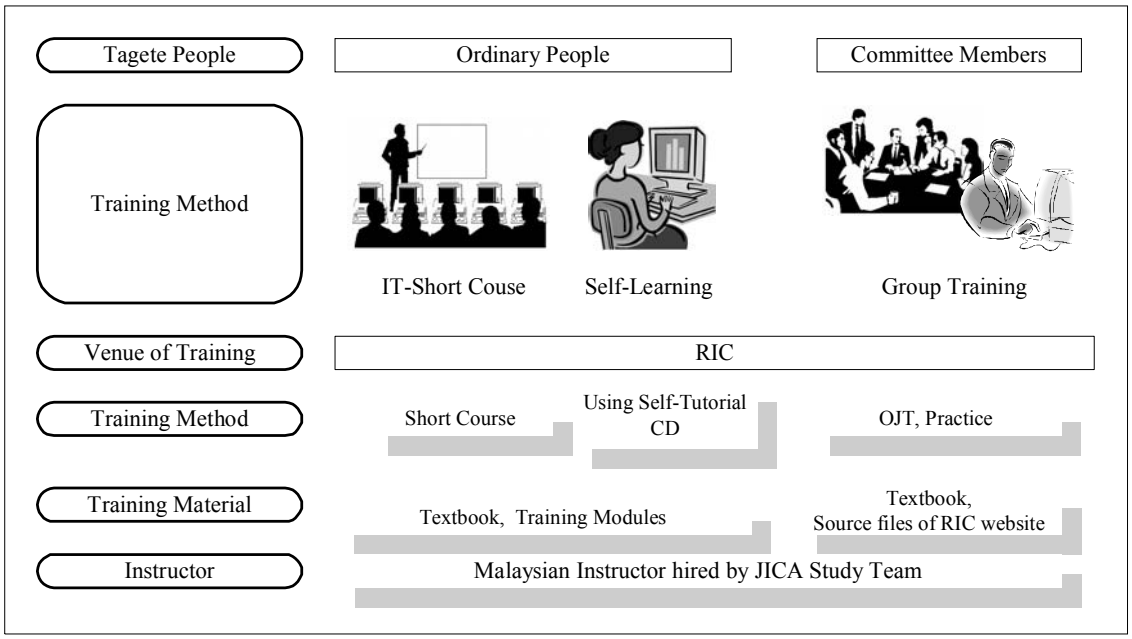

Figure III.6.1: Planned IT-Training at each Model RIC

(3) Training for RIC Committee

RIC Committees were considered to be the most important resident groups for revitalizing the RICs in their communities. According to the needs analysis done by the Study Team before the Model Projects, residents seemed to expect to be offered information related to their local community on homepages. RIC Committees composed of local people seemed to know their own local needs better than anyone else, and were expected to be the local information providers for their communities.

In the Model Projects, the Study Team offered the RIC Committee members a training course about website development and management. The emphasis of the training was mostly put on practices through the actual use of the hardware and software for website

development. The training course was carried on in accordance with the contents of the textbooks specialized for RIC Websites and written in the Malaysian language ("Bahasa Malaysia"). The contents of the training are summarized as follows.

Contents of Web Expert Training Course for RIC Committee Members

Place	Each RIC
Duration	2 days for each RIC
Instructor	A Malaysian consultant
Training Time	First day: 9.00 AM to 5.00 PM (lunch time: 1 hour) Second day: 9.00 AM to 5.00 PM (lunch time: 1 hour)
Participants	RIC Committee members or its task force members
Contents of Training	<First Day Training> 1) Manipulating administrator's module of "e-Greetings" module 2) Manipulating administrator's module of "e-Reservation" module 3) Outlines of Website Management 4) Operations in RIC Website (1) • Editing contents and text • Creating and editing hyperlinks • Creating and adding a new page <Second Day Training> 5) Operations in RIC Website (2) • Creating and editing images • Creating thumbnails of "Gallery" page • Adding new menus of web contents • Uploading and downloading files 6) Questions and Answers
Training Material	Hardware: • PCs and a scanner in RIC Software: • Microsoft FrontPage 2000 • Adobe Photoshop 7.0 • Adobe Illustrator 10 • Leech FTP (free software) Textbook: • Written in Malaysian Language ("Bahasa Malaysia")

6.1.2 IT-Short Course

(1) Procedure of Application

The fixed number of participants in one session was three people in Sg. Air Tawar RIC and Kota Marudu RIC (main RIC inside the Kota Marudu Post Office), and it was five in Bau RIC. Participants were invited through the following procedure.

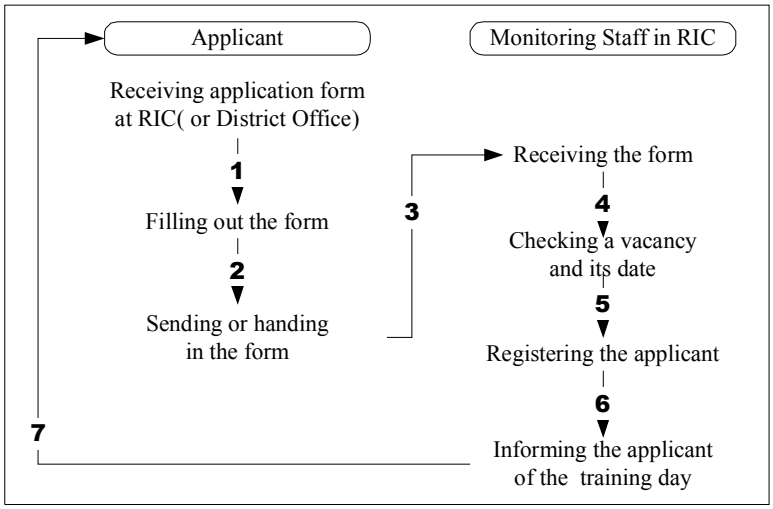

Figure III.6.2: Procedure of Application for Training Course

Application forms for the course were distributed in the Launching Ceremony held at each RIC in August to September 2002. They were also prepared at RICs, district offices, etc. The application forms for the short courses requested the people to fill in their name, gender, address, telephone number, postcode and age. The form which was filled out by an applicant, was sent to the RIC Committees or the monitoring staff of each RIC. The monitoring staff confirmed the schedule, arranged the participants and informed the applicant of the training day to come.

(2) Course Setting

The IT-short course was composed of two short courses in terms of the level settings mentioned above.

Course-1: "PC Challenge Course"

The course targeted people who were new to PCs in the service area of each RIC. It was planned to give them the first touch with a PC and to remove a fear of using PCs. The outline of the Course-1 is shown below.

Outline of Course-1

Course	*Course-1: "PC Challenge Course"*
Target Level	*Level-1*
Venue	*Rural Internet Center*
Duration of a session	*Basically 3 hours*
Charge	*Free*
Instructor	*A Malaysian Instructor for each RIC (Sg. Air Tawar, Bau and Kota Marudu)*
Capacity	*3-5 persons per session*
Participants	*People who are new to PCs*
Course Menu	*1. Orientation for Course-1* *2. Background of the Rural Internet Center* *(Using Course-1 textbook)* *3. What you can do with PCs* *(Using Course-1 textbook)* *4. What a PC is* *(Using Course-1 textbook)* *5. What hardware or software is* *(Using Course-1 textbook)* *6. Mouse usage* *(Using the mouse training module)* *7. Keyboard usage* *(Using the typing training module)* *8. Windows OS usage* *(Using "Notepad" software and the textbook: composing a document, saving a document, moving a document file to a folder, deleting a file, etc.)* *9. Self-check for understanding* *(with the Questionnaire)* *10. Questions and Answers* *11. Free use of PCs*
Training Material	*Course-1 textbook:* *("Kursus Jangka Pendek Teknologi Maklumat (IT) 1 Nota Kursus")* *Notepad practice textbook ("Latihan Menggunakan Notepad")* *Mouse Training Module included in Self-Tutorial CD* *Typing Training Module included in Self-Tutorial CD*

Course-2: "Internet Challenge Course"

People learned the basic knowledge and skills for Internet use as required in Level-2 to 5. The outline of the Course-2 is shown below.

(3) Self-Learning at RIC

This education program was planned to be suitable for individuals who couldn't attend IT short courses in spite of their applications. People could do self-learning at any time they wanted within the operation hours of each RIC. They could learn the basics of PCs and the Internet using PCs in the RIC with a Self-Tutorial CD. A monitoring staff hired by the Study Team assisted their self-learning at each RIC. Self-learning wasn't planned as a fixed-time education program, and the people could adjust the self-learning menu and levels depending on their IT literacy.

Outline of Course-2

Course	*Course-2: "Internet Challenge Course"*
Target Level	*Level-2 to 5*
Venue	*Rural Internet Center*
Duration of a session	*Basically 3 hours*
Charge	*Free*
Instructor	*A Malaysian Instructor for each RIC (Sg. Air Tawar, Bau and Kota Marudu)*
Capacity	*3-5 persons per session*
Participants	*People who are new to the Internet*
Course Menu	*1. Orientation for Course-2* *2. Background of the Rural Internet Center (using Course-2 textbook)* *3. What you can do on the Internet (using Course-2 textbook)* *4. How to connect with the Internet (practice with Course-2 textbook)* *5. Concepts and use value of the Internet (using Course-2 textbook)* *6. What "WWW" and browsers are (using the mouse training module)* *7. Browser usage (practice with Course-2 textbook: how to view home page, how to change URLs, how to change pages with links, etc.)* *8. Search Engine usage (practice with Course-2 textbook: how to select keywords, how to find things fast, etc.)* *9. E-mail usage (practice: how to use "Yahoo! Mail"(how to sign up, how to read messages, how to compose, how to reply, how to delete messages, and how to make "Trash" empty, etc.))* *10. Self-check for the understanding (according with the Questionnaire)* *11. Questions and Answers* *12. Free use of PCs*
Training Material	*Course-2 textbook:* *("Kursus Jangka Pendek Teknologi Maklumat (IT) 2 Nota Kursus")*

6.1.3 Performance Monitoring

At the end of each session, all participants were requested to fill out the questionnaires. The questionnaires were prepared with the intentions to check:

- understanding of the basics and skills taught in the course,
- awareness of using PCs or the Internet,
- needs for further training courses in the future.

The answers to the questions were compiled and analyzed as data to evaluate the training for the common citizens during the Model Projects.

The questionnaire prepared for Course-1 and Course-2 is shown in Figures III.6.3 and III.6.4. The original one was written in Malaysian language ("Bahasa Malaysia").

6.1.4 Training Material

(1) Self-Tutorial CD

The Study Team prepared a Self-Tutorial CD that would enable people to learn PCs and the Internet by themselves at each RIC. The CDs were delivered to each Model Site and installed onto PCs in each RIC. The CD contains four modules: 1) "Main Tutorial", 2) "Mouse Training-Module", 3) "Typing Training Module" and 4) "Examination Module".

All four modules of the Self-Tutorial CD were developed based on the technologies of Microsoft PowerPoint and Visual Basic for Application (VBA). Microsoft PowerPoint is a very common software program, which is used worldwide. Using MS PowerPoint and VBA enable developers to easily revise or update the CD in the future. It is also easy to make copies of the CD.

The CD had the following specifications.

Minimum Requirements for Hardware and Software

Item	Specification
Operating System	Windows 2000, XP (or later)
Central Processing Unit	Pentium II Processor (recommended)
RAM	256MB (recommended)
Hard disk	200MB (available)
Software	Microsoft Office XP

<Modules of Self-Tutorial CD>

Module 1: "Main Tutorial"

The Main Tutorial was prepared as a training module for the participants' self learning. It has also been considered to enable people to learn basic PC competence and an outline of the Internet. It also contained dynamic objects such as animation and sound.

Contents of the Main Tutorial are shown below.

Contents of the Main Tutorial

Chapter	Theme	Sub-theme
Chapter-1	Introduction	Background of Rural Internet Center Cooperative Works by MECM and JICA
Chapter-2	Outline of the Internet	Concept of the Internet Use Value of the Internet
Chapter-3	Hardware and Software	About Hardware and Software About Personal Computers
Chapter-4	Using a Keyboard	About the Keyboard How to use?
Chapter-5	Using a Mouse	About the Mouse Why use a Mouse? How to use?
Chapter-6	Windows OS	About Desktop and Icons What's a Window? Starting applications from Startup
Chapter-7	Services on the Internet	WWW and Homepages Browsers and How to use? Search Engines and their usage E-mail Receiving and Sending E-Mail About Dial-up Connections
Chapter-8	Important Notice	Warnings and Notices

Module 2: "Mouse Training Module"

The module was prepared to enable people to know how to use a mouse. People also could learn various basic operations being used in Windows OS with this module.

Module 3: "Typing Training Module"

The module was prepared to enable people to know how to use keyboard step-by-step. The module has simple user interfaces, and it was also easy for the beginner to operate.

Module 4: "Examination Module"

INTAN developed a Basic IT Certificate Examination on IT literacy for public servants, named "ISAC". ISAC was developed for web-based technology and was established as the authorized certificate system for public servants in Malaysia.

At present, the system cannot be presented to common citizens because of problems related to the examination, such as security, fairness, or confidence. However, the module offers ISAC-like examinations and enables people to check their basic IT literacy.

(2) Textbook

The Study Team also prepared the textbooks to be used in the short courses. The contents of the books were almost the same as the Main Tutorial included in the Self-Tutorial CD and written in Bahasa Malaysia. The textbooks were delivered to each participant in the training courses free of charge.

Following textbooks were prepared for each course.

Course	Textbook (Title)	Note
1	Kursus Jangka Pendek Teknologi Maklumat (IT) 1 Nota Kursus"	Main textbook in Course-1
1	Latihan Menggunakan Notepad	Tutorial book for using Notepad
2	Kursus Jangka Pendek Teknologi Maklumat (IT) 1 Nota Kursus	Main textbook in Course-2

6.1.5 Training Support

(1) For RIC Committees

The training for the RIC Committees was started after the establishment of each model RIC. The training was mainly conducted by a Malaysian instructor and supervised by the Study Team members.

(2) For Local People

The Study Team cooperated with the Malaysian instructors. The status of the training was monitored by the Study Team.

(3) Formation of the Training Team

The Study Team formed a subsidiary team to support IT training at each Model Site. The training team included Malaysian instructors hired by the Study Team.

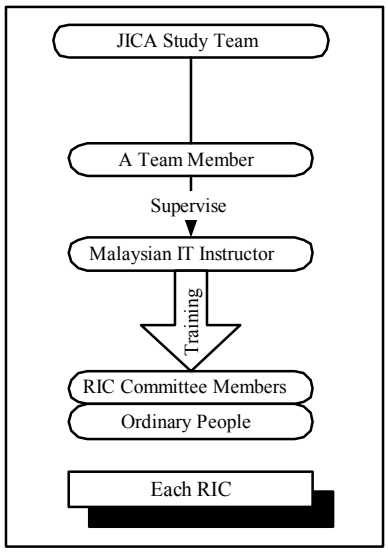

Figure III.6.5: Formation of Training Team

(4) Study Team

The Study Team supervised all aspects of the

IT-training during the Model Project. The main tasks of the Study Team were as follows:

- To prepare the plan and contents of the IT-training
- To prepare and arrange a Self-Tutorial CD and other training material
- To monitor the status of the training sites
- To revise and improve the plan and the contents of the IT-training, and training material
- To train RIC Committee members

(5) Malaysian Instructors

The Malaysian instructors worked under the Study Team at each Model Site. Their tasks at the sites were as follows:

- To hold IT Short Courses as the instructors
- To report the status of the training to the Study Team
- To translate training material from English to Bahasa Malaysia
- Other duties as necessary

6.2 Performance

6.2.1 Performance of Course-1

Performance of the Course-1 is discussed based on the items of the Questionnaire given to the participants after completion of the course.

(1) Status of Application and Participation

There were really strong demands to attend the course to learn about PCs among the people in the Model Projects. It was shown as the relatively high percentage of attendants and the total number of applicants mentioned hereinafter.

RIC	Number of Full Quota	Number of Applicants	Ratio of Applicants to quota (%)	Number of Participants	Ratio of Attendance to accepted applicants (%)
Sg. Air Tawar	48	108	225	45	79
Bau	135	145	107	91	67
Kota Marudu	50	128	256	43	86

In Kota Marudu, the applicants were limited to above middle age people by the RIC Committee. In accordance with this wish of the committee, the Study Team gave the

instructor the direction to inform people of the course. Up till then, the majority of the participants in Sg. Air Tawar and Bau had been mainly school students.

• Applicants of 20 and above had to be given a priority to attend the course.
• Older people had to be given more priority than younger people.
• In addition, farmers, housewives and unemployed persons would be welcome attendants because they seemed not to being given chances to learn about PCs or the Internet through their daily lives.

(2) Attributes of Participants

There were a total of 179 participants in the courses held at the 3 RICs. Out of 179 participants, 113 were female and 66 were male.

(a) Gender

Sg. Air Tawar

There were 45 participants comprised of 13 males and 32 females.

Bau

There were 91 participants comprised of 38 males and 53 females.

Kota Marudu

There were 43 participants comprised of 15 males and 28 females.

(b) Age

Age group compositions by gender of the three model projects are as follows.

Participants by Age Group

	Number of Participants	Age 1-10	Age 11-20	Age 21-30	Age 31-40	Age 41-50	Age above 50
Male	66	7	29	5	6	8	11
Female	113	6	42	18	29	11	7
Total	179	13	71	23	35	19	18

Sg. Air Tawar

The male group above 50 represented 5 of 13 male participants. And, the largest female group from 11 to 20 represented 31 percent of all females. And, the females over 40 accounted for 38 percent of all females.

Bau

The age group from 11 to 20 accounted for 31 percent of all participants. The group from 1 to 10 and 31 to 40 ranked second of the age groups.

Kota Marudu

The male group from 41 to 50 amounted 5 of 15 males and the group from 21 to 30 represented 4 of 15. With respect to females, the largest group from 31 to 40 accounted for 46 percent of all females. And, the group from 21 to 30 was second with about 30 percent of all females.

(c) Occupation

Students represented 41 percent of all the participants in Course-1 during the Model Project period. Housewives also amounted to 21 percent of the total. Therefore, these two groups together accounted for over the half of the participants. The third and fourth largest were teachers and farmers, respectively, and each of them represented nearly 7 or 8 percent.

Sg. Air Tawar

Housewives accounted for 36 percent of all the participants. They were followed by students who amounted to 29 percent of the total.

Bau

Students represented over the half of all the participants. The second group in Bau was composed of housewives who accounted for 10 percent. The third group was comprised of teachers who represented 8 percent.

Kota Marudu

The top group was formed of housewives who were 30 percent of all the participants. It was followed by farmers who represented 26 percent of all the participants.

Participants by Occupation

Occupation	SAT*	Bau	KM	**Total**
Student	13	55	5	**73**
Housewife	16	9	13	**38**
Teacher	4	7	4	**15**
Farmer	1	1	11	**13**
No answer	6	5		**11**
Self Employed	3		4	**7**
Businessman		2	2	**4**
Pensioner	1	2		**3**
Clerk			2	**2**
Office Boy		2		**2**
Cleaner		2		**2**
Ex-serviceman	1			**1**
Ex-head of village		1		**1**
Librarian		1		**1**
Driver		1		**1**
Head of Village		1		**1**
Unemployed		2		**1**
Technician			1	**1**
Other			1	**1**
Total	**45**	**91**	**43**	**179**

* SAT: Sg. Air Tawar, KM: Kota Marudu

(3) Awareness, Knowledge and skills given in Course-1

(a) Background of RIC

People's understanding of the background of RIC tends to lower with ascending.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	2.4	-
	11-20	3.9	3.5	3.5
	21-30	-	2.0	3.5
	31-40	-	2.3	3.3
	41-50	3.0	2.5	2.8
	above 50	3.4	3.0	2.0
	Average	3.6	3.0	3.1
Female	1-10	-	3.3	-
	11-20	4.1	2.7	3.3
	21-30	4.3	2.7	2.8
	31-40	3.8	2.6	2.8
	41-50	3.3	3.0	3.0
	above 50	2.7	1.0	-
	Average	3.7	2.8	2.9
Total	1-10	-	2.8	-
	11-20	4.0	3.0	3.3
	21-30	4.3	2.6	3.0
	31-40	3.8	2.5	2.9
	41-50	3.3	2.8	2.8
	above 50	3.0	2.7	2.0
	Average	3.6	2.9	3.0

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Except for some females above 50, all the participants knew the background of the RIC or why the RIC has been in Sg. Air Tawar.

Bau

Most participants knew little of the backgrounds.

Kota Marudu

Most of participants have known the background and the reason why the RIC has been there.

(b) Awareness of Use Value

Most participants of 30 and under have been reasonably aware of the use value of PCs. But, on the whole, most people above 50 have lacked understanding.

Average Awareness of Use Value

Gender	Age	SAT	Bau	KM
Male	1-10	-	2.6	-
	11-20	3.9	3.5	3.0
	21-30	-	3.0	3.5
	31-40	-	1.7	2.3
	41-50	5.0	3.0	2.8
	above 50	3.2	3.4	2.0
	Average	3.7	3.1	2.9
Female	1-10	-	3.3	-
	11-20	3.8	2.7	3.7
	21-30	4.0	2.5	3.1
	31-40	3.2	2.3	2.9
	41-50	3.2	2.5	3.0
	above 50	2.7	2.0	-
	Average	3.4	2.6	3.1
Total	1-10	-	2.9	-
	11-20	3.8	3.0	3.5
	21-30	4.0	2.6	3.3
	31-40	3.2	2.2	2.8
	41-50	3.4	2.7	2.8
	above 50	2.9	3.2	2.0
	Average	3.5	2.8	3.0

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Almost of all the participants have gotten to know the use value of PCs and what they can do with PCs. However, participants above 50 seem to be still in development.

Bau

Average understanding is relatively low as compared to the other two model sites.

Kota Marudu

Most participants have gotten to know the use value of PCs and what they can do with PCs. But, males above 30 seem not to be sufficiently aware of use value of using PCs.

(c) Concepts of Hardware and Software

It was difficult for advanced age participants to understand concepts of hardware and software. It was also difficult for children.

Sg. Air Tawar

Participants have some concepts of hardware and software.

Bau

Some of the participants of 21 and above knew only a few of them. Participants above 50 lacked knowledge in spite of the training.

Kota Marudu

Most participants have come to know what hardware or software is. The 56-year-old man couldn't grasp the concepts.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	2.6	-
	11-20	3.1	3.5	3.0
	21-30	-	3.0	3.8
	31-40	-	1.7	3.0
	41-50	5.0	3.0	3.0
	above 50	3.2	1.6	2.0
	Average	3.3	2.9	3.1
Female	1-10	-	3.8	-
	11-20	3.6	2.6	4.0
	21-30	4.0	2.7	3.3
	31-40	3.5	2.5	3.0
	41-50	3.2	3.0	4.0
	above 50	2.5	2.0	-
	Average	3.3	2.7	3.3
Total	1-10	-	3.2	-
	11-20	3.4	3.0	3.8
	21-30	4.0	2.7	3.4
	31-40	3.5	2.3	3.0
	41-50	3.4	3.0	3.2
	above 50	2.8	1.7	2.0
	Average	3.3	2.8	3.3

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(d) Mouse Usage

Almost all the trainees have come to use a mouse through the training. With respect to the aged females, it was difficult for some of them to use a mouse at the first try.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	3.7	-
	11-20	4.3	4.3	4.0
	21-30	-	3.0	4.0
	31-40	-	2.7	4.0
	41-50	5.0	4.0	4.0
	above 50	4.0	3.8	3.0
	Average	4.2	3.9	3.9
Female	1-10	-	4.2	-
	11-20	4.9	4.3	4.0
	21-30	4.3	3.3	4.0
	31-40	4.2	3.9	3.5
	41-50	3.5	3.3	4.0
	above 50	3.0	2.0	-
	Average	4.1	4.0	3.8
Total	1-10	-	3.9	-
	11-20	4.6	4.3	4.0
	21-30	4.3	3.3	4.0
	31-40	4.2	3.6	3.6
	41-50	3.7	3.5	4.0
	above 50	3.5	3.5	3.0
	Average	4.1	4.0	3.8

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Almost all the participants of 40 and under have understood mouse usage very well, and participants from 41 to 50 also have understood mouse usage. A lot of females above 50 had some difficulties in using a mouse smoothly.

Bau

Almost all the trainees have understood mouse usage without serious questions in normal use. A female above 50 had difficulty in using a mouse through the training.

Kota Marudu

Almost all the participants understood mouse usage.

(e) Keyboard Usage

Most participants have gotten to know basic keyboard usage in the course.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	3.4	-
	11-20	4.1	3.7	3.5
	21-30	-	3.0	3.5
	31-40	-	2.3	3.0
	41-50	5.0	3.5	3.8
	above 50	3.2	2.8	3.0
	Average	3.8	3.4	3.5
Female	1-10	-	4.0	-
	11-20	4.6	3.3	3.7
	21-30	4.0	3.0	3.6
	31-40	4.2	3.4	3.2
	41-50	3.3	2.5	4.0
	above 50	2.7	1.0	-
	Average	3.8	3.3	3.5
Total	1-10	-	3.7	-
	11-20	4.4	3.5	3.6
	21-30	4.0	3.0	3.6
	31-40	4.2	3.2	3.2
	41-50	3.6	2.8	3.8
	above 50	2.9	2.5	3.0
	Average	3.8	3.3	3.5

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most of participants of 40 and under have come to know keyboard usage very well, and participants aged from 41 to 50 also have gotten basic keyboard usage. However, with respect to many females above 50, it was difficult for them to use a keyboard at the first try.

Bau

Most participants understood how to use a keyboard. However, it was difficult for people above 50.

Kota Marudu

Almost all the participants knew the basics of keyboard usage.

(f) Operations in Windows OS

Almost all the participants of 30 and under came to understand the operations of the Windows OS. In contrast, it was hard for people above 30 to get a basic understanding of Windows OS. There wasn't considerable difference in understanding of Windows OS by age group or by RIC.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	2.4	-
	11-20	3.3	3.3	3.0
	21-30	-	3.0	4.0
	31-40	-	2.0	2.7
	41-50	3.0	3.0	2.8
	above 50	2.6	2.0	2.0
	Average	3.0	2.8	3.1
Female	1-10	-	3.2	-
	11-20	3.5	2.6	3.3
	21-30	3.8	2.7	3.1
	31-40	2.8	1.9	3.2
	41-50	3.0	1.8	4.0
	above 50	2.5	2.0	-
	Average	3.1	2.5	3.2
Total	1-10	-	2.8	-
	11-20	3.4	2.9	3.3
	21-30	3.8	2.7	3.4
	31-40	2.8	1.9	3.1
	41-50	3.0	2.2	3.0
	above 50	2.5	2.0	2.0
	Average	3.1	2.6	3.2

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Participants of 30 and under have gotten basic operations in Windows OS or its concepts. On the other hand, it was not easy for participants above 30 to understand even basic operations in Windows OS.

Bau

For almost all the participants, it was considerably difficult to understand operations in Windows OS.

Kota Marudu

Most participants have understood basic operations in Windows OS. However, some of the males above 30 have not attained the normal use level.

(4) People's Satisfaction

People's satisfaction with the course varied depending on various conditions such as training time, training level and number of computers in the RIC. However, the major reason for their dissatisfaction was their feeling that the training time was too brief. Most of the females above 30 were dissatisfied with Course-1. Most of them wanted to try the training again with sufficient training time or some exercises with the training modules repeated.

Sg. Air Tawar

The course was considered to satisfy most of the participants. A lot of males showed satisfaction with the course. Females from 31 to 50 were far from satisfied in the course.

Satisfaction

Gender	Age	SAT	Bau	KM
Male	1-10	-	3.4	-
	11-20	3.3	3.9	5.0
	21-30	-	5.0	4.0
	31-40	-	2.7	4.7
	41-50	5.0	3.5	2.4
	above 50	3.6	2.4	2.0
	Average	3.5	3.5	3.6
Female	1-10	-	3.7	-
	11-20	3.7	3.5	3.0
	21-30	3.5	3.7	3.4
	31-40	2.8	2.3	3.0
	41-50	2.5	2.3	3.0
	above 50	3.8	1.0	-
	Average	3.3	3.2	3.1
Total	1-10	-	3.5	-
	11-20	3.5	3.6	3.5
	21-30	3.5	3.9	3.6
	31-40	2.8	2.4	3.3
	41-50	2.9	2.7	2.5
	above 50	3.7	2.2	2.0
	Average	3.4	3.3	3.3

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Bau

Participants of 30 and under seem to be satisfied with Course-1. In contrast, people above 30 don't seem to be satisfied with it, and a female of 52 showed dissatisfaction with the course.

Kota Marudu

Most participants showed satisfaction with the course. But, some males above 40 showed a little dissatisfaction.

(5) Training Time

Many participants have felt the brevity of the training time. Shortness of the training time is obviously the main reason for dissatisfaction with the course.

Sg. Air Tawar

Most participants seemed to have felt a little short training time.

Bau

Almost all the participants pointed out the brevity of the training time.

Kota Marudu

A lot of participants above 20 thought the training time was too short.

Training Time

Gender	Age	SAT	Bau	KM
Male	1-10	-	2.1	-
	11-20	2.1	2.9	3.0
	21-30	-	2.0	3.0
	31-40	-	2.7	2.7
	41-50	3.0	3.0	2.0
	above 50	3.0	2.6	1.0
	Average	2.5	2.7	2.5
Female	1-10	-	3.5	-
	11-20	3.0	2.5	3.5
	21-30	3.0	2.3	2.4
	31-40	2.5	2.0	2.1
	41-50	2.5	2.3	1.0
	above 50	2.7	1.0	-
	Average	2.8	2.4	2.4
Total	1-10	-	2.8	-
	11-20	2.6	2.7	3.4
	21-30	3.0	2.3	2.6
	31-40	3.0	2.2	2.2
	41-50	2.6	2.5	1.8
	above 50	2.8	2.3	1.0
	Average	2.8	2.5	2.4

note: 5: too long, 4: long, 3: normal, 2: easy, 1: too short

SAT: Sg. Air Tawar, KM: Kota Marudu

(6) Training Level

Most participants considered that the training level of the course was suitable or a little too easy.

Training Level

Gender	Age	SAT	Bau	KM
Male	1-10	-	2.6	-
	11-20	2.4	2.9	4.0
	21-30	-	2.0	2.5
	31-40	-	3.0	3.3
	41-50	3.0	2.5	3.2
	above 50	3.0	3.4	3.0
	Average	2.7	2.9	3.1
Female	1-10	-	2.3	-
	11-20	1.9	2.3	3.3
	21-30	3.0	3.2	3.0
	31-40	3.3	3.3	3.0
	41-50	3.0	3.5	3.0
	above 50	2.8	5.0	-
	Average	2.7	2.7	3.1
Total	1-10	-	2.5	-
	11-20	2.1	2.6	3.5
	21-30	3.0	3.0	2.8
	31-40	3.3	3.2	3.1
	41-50	3.0	3.2	3.2
	above 50	2.9	3.7	3.0
	Average	2.7	2.8	3.1

note: 5: too difficult, 4: difficult, 3: normal, 2: easy, 1: too easy

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most participants over 20 felt that the level of a session was “normal” or suitable for them. The participants of 20 and under felt it too easy for them. All of them were students and they have been learning PC usage in their school classes.

Bau

Most participants felt the level of a session was “normal” or suitable. It was easy for the participants of 10 and under. All of them were students having learned PC usage in their school. A female of 52 strongly felt that the training was too difficult.

Kota Marudu

Most participants seem to have felt the level of a session was “normal” or suitable. Some of males from 21 to 30 thought the level was a little too easy. In contrast, males from 11 to 20 thought that the training level was too difficult for them to catch up.

(7) Textbook & Training Modules

(a) Textbook

Most participants considered the textbooks were acceptable or suitable for them.

Textbook

Gender	Age	SAT	Bau	KM
Male	1-10	-	3.4	-
	11-20	3.0	3.6	4.0
	21-30	-	5.0	4.3
	31-40	-	2.7	3.7
	41-50	5.0	3.0	3.8
	above 50	3.6	3.8	2.0
	Average	3.4	3.5	3.8
Female	1-10	-	4.0	-
	11-20	4.7	2.8	3.3
	21-30	4.3	3.7	4.1
	31-40	3.8	3.3	3.5
	41-50	3.8	4.0	4.0
	above 50	3.0	-	-
	Average	4.0	3.2	3.7
Total	1-10	-	3.7	-
	11-20	4.0	3.1	3.5
	21-30	4.3	3.9	4.2
	31-40	3.8	3.2	3.6
	41-50	4.0	3.7	3.8
	above 50	3.3	3.2	2.0
	Average	3.8	3.3	3.7

note: 5: excellent, 4: good, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most of participants considered the textbooks had been useful in the course being undertaken or almost completed.

Bau

Most participants considered the textbooks had been useful or acceptable for them.

Kota Marudu

Most of participants considered the textbooks had been useful or acceptable. The 56-year-old man had difficulty in reading the textbook written in Bahasa Malaysia with some English terminology.

(b) Mouse Training Module

Almost all the participants were satisfied with the Mouse Training Module.

Mouse Training Module

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.3	-
	11-20	3.0	4.2	4.5
	21-30	-	5.0	4.5
	31-40	-	4.3	4.3
	41-50	5.0	3.0	3.8
	above 50	3.4	4.2	4.0
	Average	3.3	4.2	4.2
Female	1-10	-	3.8	-
	11-20	4.5	3.4	4.0
	21-30	4.3	3.7	4.6
	31-40	4.3	3.5	4.2
	41-50	3.3	4.3	4.0
	above 50	3.3	5.0	-
	Average	4.0	3.6	4.3
Total	1-10	-	4.1	-
	11-20	3.9	3.8	4.1
	21-30	4.3	3.9	4.6
	31-40	4.3	3.7	4.2
	41-50	3.6	3.8	3.8
	above 50	3.4	4.3	4.0
	Average	3.8	3.8	4.2

note: 5: excellent, 4: good, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(c) Typing Training Module

They also felt the Typing Training Module was suitable for them to learn keyboard usage.

Typing Training Module

Gender	Age	SAT	Bau	KM
Male	1-10	-	3.6	-
	11-20	2.9	4.0	3.0
	21-30	-	5.0	4.3
	31-40	-	4.3	4.7
	41-50	5.0	3.0	3.4
	above 50	3.6	3.0	4.0
	Average	3.3	3.8	3.9
Female	1-10	-	4.0	-
	11-20	4.7	3.1	3.8
	21-30	4.5	3.5	4.1
	31-40	4.3	3.4	4.4
	41-50	3.3	3.5	4.0
	above 50	4.1	3.3	-
	Average	4.1	3.3	4.2
Total	1-10	-	3.8	-
	11-20	3.9	3.5	3.6
	21-30	4.5	3.7	4.2
	31-40	4.3	3.6	4.4
	41-50	3.6	3.3	3.5
	above 50	3.5	3.0	4.0
	Average	3.9	3.5	4.1

note: 5: excellent, 4: good, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(8) Usefulness of Course-1

Most participants understood the benefit of using PCs in their daily life through the course. A lot of females from 11 to 40 could see the advantages of using PCs. Most people thought Course-1 enhanced their "hobby/entertainments" or "job/employment" opportunities. Females from 21 to 40 in Kota Marudu showed strong interests in using PCs. They considered the ability to use PCs would make them better not only in "education/study" but also in "job/employment". This trend has also been shown in Sg. Air Tawar and Bau. On the whole, females seem to be more conscious of using PCs in their life than males.

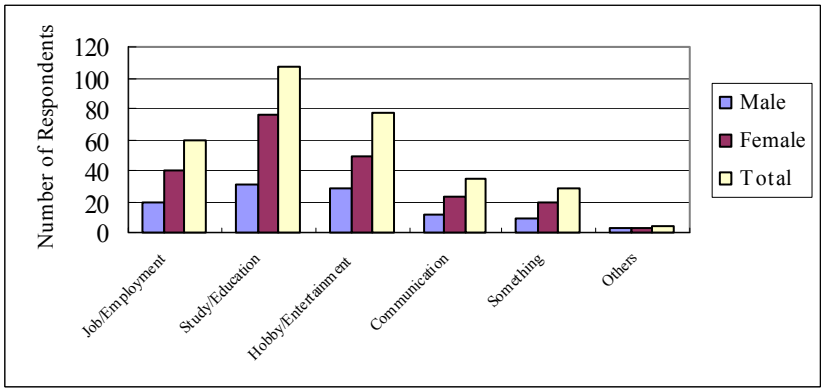

Figure III.6.6: Usefulness of Course 1

(9) Demands for the future

Most participants wanted more training for using PCs even if it was the first time they used or touched a PC in their life. The most requested training was about word processing which was followed by "website development" or "image/digital photo processing". A lot of people who were 20 and under also showed a strong interest in using the Internet. Participants from all three RICs, especially the females in Kota Marudu, showed a very strong interests in further training. In contrast, people above 50 in Bau and Kota Marudu didn't seem to determine their own needs through the course. A lot of young people in Bau were interested in website development. In fact, some of them had visited the Bau RIC to learn how to develop their own websites. They also learned image processing and how to use devices like a digital camera and a scanner with a member of the Study Team who had stayed to monitor the status of the RIC in Bau.

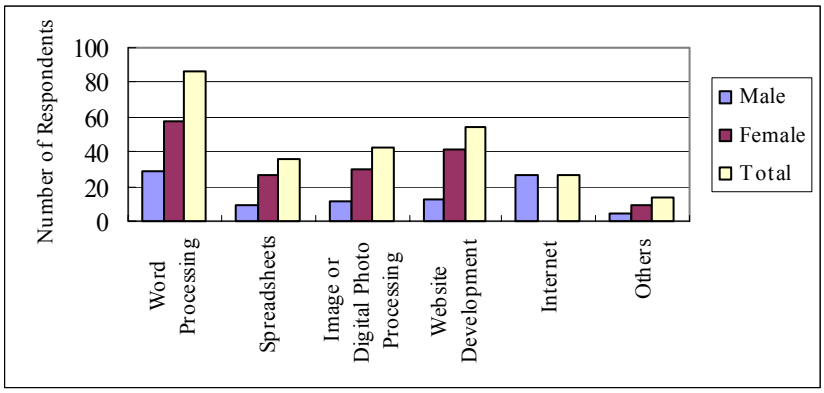

Figure III.6.7: Demands for Further Training for Course-1 Trainees

6.2.2 Performance of Course-2

Performance of the Course-2 is described based on the items of the Questionnaire given to the participants after completion of their studies.

(1) Status of Application

In Course-2, there was strong demands to attend the course to learn Internet usage through the Model Projects.

RIC	Number of Full Quota	Number of Applicants	Ratio of Applicants to quota (%)	Number of Participants	Ratio of Attendance to accepted applicants (%)
Sg. Air Tawar	48	120	250	48	94
Bau	100	145	145	73	73
Kota Marudu	47	128	272	37	79

The applicants in Kota Marudu were limited for with the same reasons as with Course-1.

(2) Attributes of Participants

There were a total of 158 participants in the courses held at the 3 RICs as of November 7, 2002. The number of participants by gender at each RIC is shown in the table below. The table also shows the implemented schedule and details of the number of participants in each RIC.

(a) Gender

Sg. Air Tawar

The planned full quota of the course was 51 persons. The total number of the applicants for the course was 120.

Bau

The planned full quota was 100 persons. The total number of the applicants was 145.

Kota Marudu

The full quota was 47 persons. The total number of applicants was around 130.

The applicants were mainly limited to those above middle age people for the same reason as in Course-1.

(b) Age

Age group compositions by gender of the three model projects are as follows.

Participants by Age Group

	Number of Participants	Age 1-10	Age 11-20	Age 21-30	Age 31-40	Age 41-50	Age above 50
Male	56	1	30	3	5	8	9
Female	102	1	44	16	21	14	6
Total	**158**	**2**	**74**	**19**	**26**	**22**	**15**

A woman didn't answer her age. The total number of female was 101.

(c) Occupation

Participants by Occupation

Occupation	SAT*	Bau	KM	**Total**
Student	18	45	4	**67**
Housewife	17	9	13	**39**
Teacher	2	8	4	**14**
Farmer			7	**7**
No answer	6	3		**10**
Self Employed	2		4	**6**
Businessman		2	2	**4**
Pensioner	3	1		**4**
Clerk		1	1	**2**
Ex-policeman		1		**1**
Head of village		1		**1**
Librarian		1		**1**
Unemployed		1		**1**
Technician			1	**1**
Other			1	**1**
Total	**48**	**73**	**37**	**158**

*SAT: Sg. Air Tawar, KM: Kota Marudu

(3) Awareness, Knowledge and skills given in Course-2

(a) Understanding of Purpose (and Background) of RIC

Participant's understanding of background and purpose of RIC using a 5-level score method shown in the following table. Understanding of purpose and aims of the RIC tended to be lower among older participants. Participants aged 30 and under generally understood backgrounds of the RIC, but understandings of females above 30 was lower.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	3.5	3.7	4.0
	21-30	-	-	4.0
	31-40	-	4.3	4.0
	41-50	5.0	3.3	3.0
	above 50	3.0	3.0	2.0
	Average	3.4	3.7	3.5
Female	1-10	-	1.0	-
	11-20	3.7	3.3	3.6
	21-30	4.0	3.0	3.4
	31-40	4.0	2.8	2.8
	41-50	2.8	2.2	3.0
	above 50	2.0	-	-
	Average	3.2	3.0	3.2
Total	1-10	-	2.5	-
	11-20	3.7	3.5	3.7
	21-30	4.0	3.0	3.5
	31-40	4.0	3.4	3.0
	41-50	3.0	2.6	3.0
	above 50	2.5	3.0	2.0
	Average	3.3	3.3	3.2

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most participants understood the background of the RIC and the reason why the RIC was built in Sg. Air Tawar. However, females aged above 40 did not understand it well.

Bau

Most participants understood the background of the RIC and the reason why the RIC was built in Bau. However, females aged above 30 did not understand it very well.

Kota Marudu

Most participants understood the background of the RIC and the reason why the RICs were built in Kota Marudu. The man 56-year-old mail did not understand the RIC was established in Kota Marudu.

(b) Available Services on the Internet

It was slightly difficult for females above middle age to be aware of what they could do on the Internet. In contrast, young participants have been made aware of it.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	3.6	4.0	4.0
	21-30	-	-	4.0
	31-40	-	3.7	1.5
	41-50	4.0	3.3	3.3
	above 50	2.8	3.3	3.0
	Average	3.4	3.8	3.2
Female	1-10	-	1.0	-
	11-20	3.8	3.5	4.0
	21-30	3.0	3.0	3.5
	31-40	3.8	2.2	3.0
	41-50	3.0	2.0	2.0
	above 50	2.5	-	-
	Average	3.4	3.0	3.3
Total	1-10	-	2.5	-
	11-20	3.7	3.7	4.0
	21-30	3.0	3.0	3.6
	31-40	3.8	2.8	2.8
	41-50	3.1	2.5	3.0
	above 50	2.6	3.3	3.0
	Average	3.4	3.4	3.3

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most participants under 50 have understood what they could do with the Internet or use available services offered on the Internet.

Bau

Except for females from 31 to 50, most participants have understood what they could do with the Internet or use available services on the Internet. The course didn't give females from 31 to 50 enough understanding.

Kota Marudu

Most participants have learned what they can do with the Internet.

(c) Concepts of the Internet

Most participants have gotten to know the concepts of the Internet or what the Internet is.

However, a female above 30 didn't come to know it well.

Sg. Air Tawar

Most participants have understood what the Internet is. With respect to females above 40, they are lacking some understanding of it.

Bau

With regard to almost all the females and males above 50, there was only little understanding of concepts of the Internet.

Kota Marudu

Almost all the participants have understood concepts of the Internet. Females from 31 to 40 have slightly lacked in their understanding.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	3.4	3.3	3.0
	21-30	-	-	3.7
	31-40	-	3.7	3.0
	41-50	4.0	3.3	3.0
	above 50	3.2	2.7	3.0
	Average	3.4	3.3	3.2
Female	1-10	-	2.0	-
	11-20	3.6	3.2	3.8
	21-30	3.0	2.4	3.5
	31-40	3.5	2.2	2.7
	41-50	2.6	2.2	3.0
	above 50	2.2	-	-
	Average	3.1	2.8	3.2
Total	1-10	-	3.0	-
	11-20	3.5	3.2	3.7
	21-30	3.0	2.4	3.5
	31-40	3.5	2.8	2.7
	41-50	2.8	2.6	3.0
	above 50	2.6	2.7	3.0
	Average	3.2	3.0	3.2

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(d) Awareness of Use Value

Most participants of 30 and under were mostly aware of the use value of the

Internet. But, females above 30 lacked some understanding.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	3.4	3.3	4.0
	21-30	-	-	4.0
	31-40	-	4.0	2.5
	41-50	4.0	3.7	2.8
	above 50	3.8	3.3	3.0
	Average	3.6	3.5	3.2
Female	1-10	-	2.0	-
	11-20	3.6	3.5	3.6
	21-30	2.0	2.7	3.8
	31-40	4.0	2.6	2.8
	41-50	3.0	2.4	3.0
	above 50	2.2	-	-
	Average	3.2	3.1	3.3
Total	1-10	-	3.0	-
	11-20	3.5	3.4	3.7
	21-30	2.0	2.7	3.8
	31-40	4.0	3.1	2.8
	41-50	3.1	2.9	2.8
	above 50	2.9	3.3	3.0
	Average	3.3	3.3	3.2

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor
SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most participants have found use value of the Internet through the course.

Bau

There was very little awareness of use value of the Internet among the females.

Kota Marudu

Middle aged men and women slightly lacked understanding of the use value of the Internet. However, all others have come to know it.

(e) Browser Usage

Participants have just come to know the minimum skills to use a browser. Females above 20 are lacking skills to use it sufficiently.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	2.9	2.8	4.0
	21-30	-	-	3.7
	31-40	-	3.7	4.0
	41-50	3.0	2.7	2.8
	above 50	3.0	1.7	3.0
	Average	2.9	2.8	3.4
Female	1-10	-	1.0	-
	11-20	3.9	2.8	3.8
	21-30	2.0	2.6	3.1
	31-40	2.8	2.2	2.6
	41-50	2.8	1.8	3.0
	above 50	2.0	-	-
	Average	3.1	2.5	3.0
Total	1-10	-	2.5	-
	11-20	3.5	2.8	3.8
	21-30	2.0	2.6	3.3
	31-40	2.8	2.8	2.8
	41-50	2.8	2.1	2.8
	above 50	2.5	1.7	3.0
	Average	3.0	2.7	3.1

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor
SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most participants have gotten using a browser like Microsoft Internet Explorer. With respect to most females, they were lacking the skills to smoothly use a browser.

Bau

Almost all the participants couldn't reach proper levels to use a browser.

Kota Marudu

Most participants from 11 to 30 have understood how to use a browser in normal usage. But, some middle-aged people have not reached a level suitable to use it.

(f) Search Engine Usage

Most participants have just come to know how to use Search Engines to find out necessary or interesting information.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	3.0	2.7	5.0
	21-30	-	-	4.0
	31-40	-	3.7	2.5
	41-50	3.0	3.3	2.5
	above 50	3.0	2.0	3.0
	Average	3.3	2.8	3.2
Female	1-10	-	1.0	-
	11-20	3.3	2.6	4.0
	21-30	3.0	2.4	3.4
	31-40	3.3	2.2	2.8
	41-50	2.8	1.8	3.0
	above 50	2.5	-	-
	Average	3.0	2.4	3.2
Total	1-10	-	2.5	-
	11-20	3.2	2.6	4.2
	21-30	3.0	2.4	3.5
	31-40	3.3	2.8	2.8
	41-50	2.8	2.4	2.6
	above 50	2.7	2.0	3.0
	Average	3.0	2.6	3.2

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Sg. Air Tawar

Most participants, excluding females above 40, have understood Search Engine usage.

Bau

They couldn't get enough skills to use search engines.

Kota Marudu

Most participants understood how to use search engines like Yahoo, Lycos, Google, etc. Some middle-aged people have slightly lacked some knowledge of search engine usage.

(g) E-mail Usage

Participants from 11 to 20 have understood basic E-mail usage.

Sg. Air Tawar

Most participants, excluding some females, have gotten to know how to use E-mail in normal usage.

Bau

Most participants, excluding some females, have gotten to know how to use E-mail in normal usage.

Kota Marudu

Most participants have reached a level suitable to use E-mail.

Average Understanding

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	3.4	3.7	4.0
	21-30	-	-	3.7
	31-40	-	4.0	3.0
	41-50	3.0	3.7	2.5
	above 50	3.4	2.7	4.0
	Average	3.4	3.6	3.2
Female	1-10	-	4.0	-
	11-20	3.9	3.6	4.2
	21-30	2.0	2.6	3.6
	31-40	3.3	2.6	3.0
	41-50	2.8	1.6	3.0
	above 50	2.3	-	-
	Average	3.2	3.1	3.4
Total	1-10	-	4.0	-
	11-20	3.7	3.6	4.2
	21-30	2.0	2.6	3.6
	31-40	3.3	3.1	3.0
	41-50	2.8	2.4	2.6
	above 50	2.8	2.7	4.0
	Average	3.3	3.3	3.4

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(4) People's Satisfaction

Most participants were satisfied with the course. However, some showed dissatisfaction with the course. The reasons for their satisfaction seem to vary depending on conditions such as training time, training level and number of computers in the RICs. The major reason for their dissatisfaction seems to be the brevity of the training time as was the case with Course-1. Most of them wanted to try the course again with sufficient training time or repeat practice. A few participants who had never used PCs came to Course-2.

Sg. Air Tawar

Most participants were satisfied with Course-2. But, females above 50 felt a little dissatisfaction with the course.

Bau

Most participants were satisfied with Course-2. But, females from 21 to 50 were far from satisfied.

Kota Marudu

Most people of 40 and under were satisfied with the course. But, people above 40 showed dissatisfaction with the course. The satisfaction in the course tends to becomes lower with ascending age.

Satisfaction

Gender	Age	SAT	Bau	KM
Male	1-10	-	5.0	-
	11-20	2.8	4.0	5.0
	21-30	-	-	3.3
	31-40	-	4.7	3.5
	41-50	5.0	3.0	1.8
	above 50	3.8	3.3	3.0
	Average	3.3	3.9	2.9
Female	1-10	-	5.0	-
	11-20	4.2	3.9	4.2
	21-30	3.0	3.0	3.6
	31-40	3.3	1.8	3.3
	41-50	3.5	2.4	2.0
	above 50	2.8	-	-
	Average	3.6	3.3	3.5
Total	1-10	-	5.0	-
	11-20	3.7	3.9	4.3
	21-30	3.0	3.0	3.5
	31-40	3.3	2.9	3.4
	41-50	3.7	2.6	1.8
	above 50	3.3	3.3	3.0
	Average	3.5	3.6	3.4

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(5) Training Time

Almost participants thought the duration of the course was short or too short. The training lasted only about 3 hours. Shortness of the training time is considered to lead to misunderstanding or dissatisfaction with the course.

Training Time

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	2.0	3.1	3.0
	21-30	-	-	2.3
	31-40	-	3.3	1.5
	41-50	4.0	2.3	1.3
	above 50	2.6	2.7	2.0
	Average	2.4	3.0	1.8
Female	1-10	-	3.0	-
	11-20	2.7	2.8	3.4
	21-30	2.0	2.7	2.6
	31-40	3.3	1.4	2.6
	41-50	1.8	2.4	1.0
	above 50	3.0	-	-
	Average	2.6	2.6	2.7
Total	1-10	-	3.5	-
	11-20	2.5	2.9	3.3
	21-30	2.0	2.7	2.5
	31-40	3.3	2.1	2.4
	41-50	2.0	2.4	1.2
	above 50	2.8	2.7	2.0
	Average	2.5	2.8	2.4

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(6) Training Level

Most participants have considered the training level of the course as suitable or a little too easy for them in spite of the brevity of the training hours.

Training Level

Gender	Age	SAT	Bau	KM
Male	1-10	-	4.0	-
	11-20	2.8	3.0	3.0
	21-30	-	-	3.0
	31-40	-	3.3	3.0
	41-50	3.0	2.7	2.5
	above 50	2.8	2.7	3.0
	Average	2.8	3.0	2.8
Female	1-10	-	3.0	-
	11-20	2.5	2.8	3.6
	21-30	3.0	3.4	3.0
	31-40	4.0	3.4	3.2
	41-50	2.9	3.0	3.0
	above 50	2.2	-	-
	Average	2.7	3.0	3.2
Total	1-10	-	3.5	-
	11-20	2.6	2.9	3.5
	21-30	3.0	3.4	3.0
	31-40	4.0	3.4	3.1
	41-50	2.9	2.9	2.6
	above 50	2.5	2.7	3.0
	Average	2.8	3.0	3.1

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

(7) Textbook

Most participants thought the textbook for the course was acceptable or suitable for them.

Textbook

Gender	Age	SAT	Bau	KM
Male	1-10	-	5.0	-
	11-20	2.5	3.2	3.0
	21-30	-	-	4.3
	31-40	-	3.7	4.0
	41-50	4.0	3.3	3.5
	above 50	3.4	3.7	3.0
	Average	2.9	3.4	3.7
Female	1-10	-	2.0	-
	11-20	4.1	3.5	4.4
	21-30	3.0	2.4	3.6
	31-40	4.0	3.0	3.5
	41-50	3.4	3.8	3.0
	above 50	3.2	-	-
	Average	3.7	3.2	3.7
Total	1-10	-	3.5	-
	11-20	3.5	3.4	4.2
	21-30	3.0	2.4	3.8
	31-40	4.0	3.3	3.6
	41-50	3.4	3.6	3.4
	above 50	3.3	3.7	3.0
	Average	3.5	3.3	3.7

note: 5: very much, 4: well, 3: normal, 2: poor, 1: very poor

SAT: Sg. Air Tawar, KM: Kota Marudu

Bau

Most participants considered the textbook was suitable for them. But, females from 1 to 10 and 21 to 30 answered the textbook wasn't suitable for them.

(8) Usefulness of Course-2

Many participants gained an understanding of the usefulness or value of using the Internet in their daily life through Course-2 in spite of it being their first time to use the Internet. People of 20 and under, who were almost all primary or secondary students, thought the Internet would be useful in "job/employment" and/or "hobby/entertainments". As regard to the females in Kota Marudu, most of them who were from 21 to 40 thought the Internet would enhance their means of communication. They also thought the Internet would be useful in "study/education" or "job/entertainment". In contrast, people above 50 couldn't see any use value for the Internet in their lives.

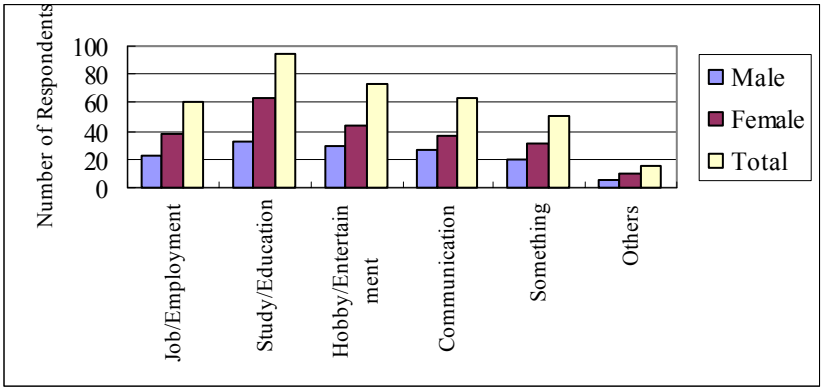

Figure III.6.8: Usefulness of Course-2

(9) Demands for Further Training

Many participants wanted further training on the Internet. They have wanted to learn to use browsers, search engines and E-mail which were almost the same as the contents of the training. They particularly wanted to learn E-mail and, training for website development attracts young participants. With respect to females from 21 to 30 in Kota Marudu, they seem to be very eager to learn about the Internet more than other people are. Males from 11 to 20 in Bau wanted to learn about Internet technology as the most interesting thing.

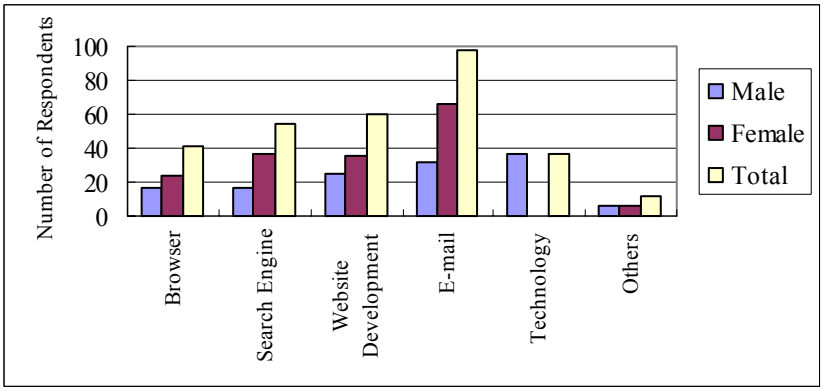

Figure III.6.9: Demands for Further Training for Course-2 Trainees

6.2.3 Performance of Self Learning at RIC

(1) Sg. Air Tawar

People who couldn't attend the short courses came to the RIC to learn about PCs or Internet usage. The monitoring staff assisted them in using the Self-Tutorial CDs and textbooks from the short courses. The monitoring staff knew the contents of the short courses and also had know-how to teach beginners. Therefore, the staff could give people the instructions like the instructor in Sg. Air Tawar. However, the people who

came for self-learning were not given a textbook like participants in the short courses because of a shortage of the printed textbooks. Some of the trainees had already finished the short courses. They came to practice the contents of the short courses repeatedly. A lot of new people who tried to use the Self-Tutorial CD appreciated the Mouse Training Module and the Typing Training Module. Some of them were also interested in the short courses after self-learning. In addition, some groups who visited the RIC for self-learning used the modules and then they taught the keyboard and mouse usage to each other. The people's knowledge and skills seemed to reach almost same levels as those of the participants in the short courses.

(2) Bau

The monitoring staff knew the contents of the short courses and also had know-how to teach beginners like the staff in Sg. Air Tawar.

The status and performance were almost same as those of Sg. Air Tawar.

In Bau, some groups of people, a group of friends and a family, requested an extra short course be held for website development. They had used a browser and E-mail. A Study Team member prepared a brief paper to teach them, and gave instructions from "zero" knowledge. At first, they learned how to use a digital camera, an image scanner, and transferred the data into a PC. Then they learned to compose the contents of homepage using software, and uploaded files into a free website server. They have successfully developed their own homepages through their first challenge. It took five hours to finish the training in two days.

(3) Kota Marudu

People who couldn't attend the short courses came to the main RIC in the Kota Marudu Post Office and two small RICs communicated via the wireless router system with the the main RIC to learn PC or Internet usage. Monitoring staff were employed at each RIC and assisted the people's self learning using Self-Tutorial CD and textbooks from the short courses. The three monitoring staffs in Kota Marudu knew the contents of the short courses and are qualified to teach beginners. Therefore, they could teachf like the instructor in Kota Marudu. The people who came for self-learning could have a textbook from the short courses when they wanted. Some of the trainees had already finished the short courses. They came to practice the contents of the short courses repeatedly. A lot of new people who tried to use the Self-Tutorial CD appreciated the Mouse Training Module and the Typing Training Module. People in Kota Marudu seemed to be very eager to learn about PCs or Internet usage. Some of them were also

interested in attending the short courses after self learning. One of the participants used to visit each RIC almost everyday and tried the training modules. Finally, he came to be called "Mr. RIC" among the people in Kota Marudu.

6.2.4 Performance of Website Training for the RIC Committee

(1) Outline of Training

The Website Training Course was held for only the RIC Committee members with the intention to improve knowledge and skill to maintain or update their RIC Website. The outline of the website training at each RIC is shown below.

Sg. Air Tawar

Outlines

Location	Sg. Air Tawar RIC
Venue	Sg. Air Tawar Post Office, Selangor
Date	28 and 29 September 2002 (9.00 AM to 5.00 PM)
Participants	First day: 6 persons (3 males and 3 females) Second day: 6 persons (3 males and 3 females)
Training Material	Training CD including source files of RIC website Textbooks and manuals prepared by JICA Study Team

The first day training was carried out at Sg. Air Tawar RIC on September 28, 2002. The Committee members covered the following training contents.

- Operation of administrator's page of "e-greetings" module
- Outlines of website management
- Editing web contents and text
- Creating and editing hyperlinks
- Creating a new page

The second day training was carried out at Sg. Air Tawar RIC on September 29, 2002. They covered the following training contents.

- Creating and editing images using Adobe Photoshop 7.0
- Creating Thumbnails of RIC "Gallery" page
- Adding a new menu to the RIC homepage
- Uploading and downloading files using FTP

Bau

Outlines

Location	Bau RIC
Venue	Bau Civic Center, Sarawak
Date	3 and 4 October 2002 (9.00 AM to 5.00 PM)
Participants	First day: 5 persons (4 males and 1 female) Second day: 9 persons (5 males and 4 females)
Training Material	Training CD including source files of RIC website Textbooks and manuals prepared by JICA Study Team

The first day training was carried out at Bau RIC on October 3, 2002. The Committee members covered the following training contents.

- Outlines of website management
- Editing web contents and text
- Creating and editing hyperlinks
- Creating a new page
- Operation of administrator's page of "e-Reservation" module
- Operation of administrator's page of "e-Greeting" module

The second day training was carried out at Bau RIC on October 4, 2002. They covered the following training contents.

- Creating and editing images using Adobe Photoshop 7.0
- Creating Thumbnails of RIC "Gallery" page
- Adding a new menu to the RIC homepage
- Uploading and downloading files using FTP

Kota Marudu

Outlines

Location	Kota Marudu RIC
Venue	Kota Marudu District Office and Kota Marudu Post Office, Sabah
Date	October 1 and 2, 2002 (8.00 AM to 4.30 PM)
Participants	First day: 9 persons (5 males and 4 females) Second day: 9 persons (5 males and 4 females)
Training Material	Training CD including source files of RIC website Textbooks and manuals prepared by JICA Study Team

The first day training was carried out at the district office and the post office in Kota Marudu on October 1, 2002. The morning session was held at the district office then the

afternoon session was held at the post office. The members covered the following training contents.

- Outlines of website management
- Editing web contents and text
- Creating and editing hyperlinks
- Creating a new page

The second day training was carried out at Kota Marudu RIC on October 2, 2002. They covered the following training contents in the second day of the training course.

- Operation of administrator's page of "e-Greeting" module
- Creating and editing images using Adobe Photoshop 7.0
- Creating thumbnails of the "Gallery" page
- Adding a new menu to the RIC homepage
- Uploading and downloading files using FTP

(2) Performance of Training

Performance of the training at each RIC is discussed below.

Sg. Air Tawar

The three persons participated in the course comprised of 3 men and 3 women from Sg. Air Tawar RIC Committee. Two of them already had some knowledge and skills for creating a homepage.

- Two of the participants had difficulty in understanding the lessons. The trainer had to spend more time with them to make sure they understood what had been taught.
- There were three computers at the RIC. The participants had to share the computers each other.
- There were some difficulties for the participants, but all participants successfully inserted new contents and created new pages for their RIC Website through the training nevertheless.

However, two of the participants on the First Day Training didn't attend the Second Day Training course. And another two new participants began the training. In addition,

one of the participants who attended on the first day had to leave the second day course because of a private issue.

- All the trainees had problems in uploading files into the server. Some of the images were not successfully uploaded into the web server. The cause of the problem seemed to be the communication line. They had to upload the files part by part.
- All participants on the second day training successfully inserted new images into their web pages.
- Only four participants who attended the second day training until the end uploaded their edited files into the server.
- Only three participants completed both the first day training and the second day training course.
- A total of five participants didn't complete the full contents of the training.

Bau

A total of five persons participated in the course comprised of 4 men and 1 woman from the Bau RIC Committee. However, one participant didn't come to the course again after the lunch break.

- One of the participants had difficulty in understanding the lessons. The trainer had to spend more time with him to make sure he understood what had been taught.
- All participants who attended the training until the end of the course successfully inserted new contents and created new pages for the Bau RIC website.

A total of nine people participated in the course comprised of 5 men and 4 women from the RIC Committee. However, one of the participants in the first day didn't attend the second day training. Instead, a new participant joined the second day session. In the second day training, two of the participants already had some website knowledge and skills. They also had their own private homepages.

- The trainer had to teach the new participants the contents of the first day lessons.
- All the trainees had problems in uploading their edited files into the server. The cause of the problems seemed to be the communication line. A member of

the Study Team had to use DOS commands to upload files. The participants had to upload files part by part as suggested by the Study Team member.

- All participants who attended the second day course successfully edited and created images for their RIC website.
- One of the participants didn't complete the course because he attended only half of the first day training and didn't come to the second day session.

Kota Marudu

A total of nine persons participated in the course comprised of 5 men and 4 women from the Kota Marudu RIC Committee. None of the participants had website development knowledge or skills. The training was held at the Kota Marudu District Office in the morning and the RIC Committee prepared six computers for the training. Five computers were borrowed from the District Office and the other one was brought by one of the participants. However, all of the computers were old models with low speeds. These computers couldn't support the latest Adobe Photoshop. It took almost three hours to install Microsoft FrontPage. Therefore, the trainer recommended to do the training at the RIC. In addition, there was no electricity between 11.30 and 11.45 am at the District Office. The trainer had to continue the lesson with only the training textbook and her notebook. After the lunch break, the venue for the training was changed to the main RIC inside the Kota Marudu Post Office. The participants had to share computers at the RIC because there were only three PCs in the Post Office. They also had to take turns to do the given exercise.

- Six participants had difficulty to understanding the lesson menu. The trainer had to revise the morning session lessons to make sure they understood what they had been taught.
- Two participants didn't know where to find the source files and the trainer had to show them a few times.
- Three participants had to leave the training early. However, they successfully inserted new contents and created new pages for their website before they left.

Second day training was also held at Kota Marudu RIC. A total of nine persons participated in the course comprised of 5 men and 4 women from the RIC Committee. However, two of the participants left before the end of the training.

- Four participants had difficulty to remembering material from the first day of training. The trainer had to revise the lesson to make sure they understood what they had been taught.

- There were only three computers at the main RIC. The participants had to share the computers. They also had to take turns to do the given exercise.
- There was no electricity between 11.00 and 11.15 AM because of the lightning. One of the computers could not access to the Internet after the blackout.
- The trainer had to teach the participants individually to ensure their understanding on image processing.
- Because of the time limit, the trainer had to concentrate on one participant to teach uploading/downloading files and adding a new menu. Thus at least one of the participants could successfully upload files and add a new menu.
- All participants successfully processed and inserted new images into their homepage. They also learned how to use administrator's page for "e-Greetings".
- Only one participant fully understood the lesson. He successfully uploaded the edited files into the server.

6.3 Evaluation and Feedback

6.3.1 IT-Short Course

The emphasis hereafter is put mainly on the adequacy of the settings of the training courses.

(1) Necessity of the training course

There are only limited people who can use PCs or the Internet in the rural areas. But, there seem to be many people who are interested in using them and to learn how. This is obvious from the fact that there were so many applicants during the Model Projects mentioned above.

The IT short course has many merits as follows.

- To remove fear of PCs in people's minds
- To be aware of the use value of information, PCs, and the Internet
- To decrease IT-illiteracy in rural areas
- To increase IT users or RIC users
- To publicize RIC

(2) Course Settings

(a) Hardware/Infrastructures

The performance of the hardware and facilities for the IT-Short Course for beginners is described below:

- Number of PCs
- There are generally 3 to 5 PCs in each RIC. It seems to be enough number for training.
- Communication Line
- Fixed-telephone lines are usually used. There is no fatal problem in training beginners. However, the communication rate may be too slow at evening time when many users access the Internet.

(b) Software

The following software should be installed as a minimum to use training material developed by the Study Team. It has already been installed into PCs of the model RICs.

- Windows Operating System
- Microsoft Office XP

In addition to the software shown above, anti-virus software should be installed into PCs.

(c) Number of Training Days

It wasn't enough time available for the total number of applicants in the Model Projects. About 50 to 70 people were on the waiting list at each site. It will be proposed to give at least 150 beginners a chances to attend each short course in the future, considering the status of application at each Model Site.

(d) Venue of the Course

The post office is considered to be suitable as the venue for the training courses for the following reasons.

- Everyone knows the location of the post office.

- There are many daily visitors to the Post Office. People can easily be made aware of the training course.
- The post office is usually located in the center of the town. It is convenient for beginners to participate in training courses.

However, there are the following problems to be solved.

- It is sometimes noisy because of the many daily visitors to the post office.
- Most post offices in rural area were built in the colonial period or are old-fashioned buildings. Those are usually lacking air conditioners.
- It is usually difficult to open the post office at nighttime or on Sunday.

A Civic Center like in Bau is also considered to be suitable as the venue of the training for following reason.

- Everyone knows the location of the Civic Center and it is located near the center of the town.
- They are usually quiet and well managed by the staffs of the civic center.
- It is possible to hold the short courses on Saturday and Sunday even during the nighttime.

However, it should be noted that many people do not know that RIC is established and in operation within the civic center, although they know the location of the civic center. It seems to be necessary to continue to publicize the location of an RIC in the community.

(e) Day of the Training

In Sg. Air Tawar and Kota Marudu, all sessions were held in the daytime and on weekdays. However, those days and times are not available for daytime-workers. Saturday, Sunday or nighttime would be more suitable for daytime-workers.

(f) Training Level

Most participants considered that the training level of each course was mostly suitable for them. However, it seemed to be sometimes a little high for participants of advanced ages because of illiteracy in English or Bahasa Malaysia, slowness in their movements, etc. For those reasons, they also had difficulty in using a mouse or keyboard. It seems to be especially difficult for old women to

use a mouse smoothly at the first try. Difficulty in using a mouse seems to lead to other difficulties such as operations on the Windows OS or using a browser.

(g) Training Hours

As mentioned above, a lot of participants in the courses asked for more training hours for a session. It is considered that the brevity of the training time will lead, not only dissatisfaction, but also to serious deficiencies in IT-literacy in the future.

The training course can give beginners a chance to start learning about PCs or the Internet, but it can't give them all they need. It is necessary for beginners to continue repeating-practice using PCs in RICs.

(h) Training Staff

The instructors usually could give instructions without any assistance by others. However, they sometimes had to ask the monitoring staff to assist them to teach participants in the training courses. To learn PC or Internet skills, beginners almost need a "one on one" teaching style.

One chief instructor and one assistant for training each group of 3 participant will be ideal though without assistant with a few more participants may be acceptable..

(i) Training Material

Many participants felt that the textbooks were suitable or acceptable for them. However, some old participants couldn't read textbooks written in Bahasa Malaysia because of illiteracy. In fact, some participants couldn't understand many of the technical terminologies written in English in the courses. In addition, almost all the computer programs and their menu items were displayed in English on the screen. Participants had to translate those terminologies from English to Bahasa Malaysia referring the course textbooks. It seems to be a very serious problem to be solved in teaching computer beginners in Malaysia.

Especially in Bau, "Bidayuh" people occupy the majority of the town. They are very proud of their ethnic culture, language, history, etc. Their own language is frequently used more than "Bahasa Malaysia" in their daily life. Some old people can't speak or read English or even Bahasa Malaysia. The people involved with RIP must give careful consideration to such social and cultural backgrounds in rural areas.

The training modules developed by the Study Team were very popular, not only among the participants, but also among the training staff. The Mouse Training Module and Typing Training Module are effective and useful to teach beginners about mouse and keyboard usage.

(3) Management

(a) Publicity

Following publicity was very effective in the Model Projects. It will be also effective in future.

- Free use of training modules at events or in the daily operation of the RIC
- Display of application form for training courses in public facilities such as district offices, post offices, community halls, schools, hospitals, etc.
- Verbal advertising by committee members, instructors or supervisors (monitoring staff)

(b) Application Procedure

A staff member is always necessary to arrange applicants' participation and inform them of their training days and times. A member of the Committee or an instructor may also hold the post.

(c) Arrangement

Following arrangements are specially recommended for holding the courses effectively.

- Group study: arranged by age group, gender group or similar educational background, etc.
- Repeated-practice: in the course or in self-learning
- 3 participants maximum per session

6.3.2 Self Learning at RIC

There were only a limited number of people who studied by themselves at RICs.

It is believed that the main reason for this was the shortage of publicity. In fact, there were many applicants on the waiting list at the end of the Model Project, but a lot of participants did not seem to know about the self-learning system in the RIC. Such people also did not seem to

know that there were self-learning modules developed by the Study Team, and that the monitoring staff could give instructions.

The participants in the training courses accepted training material developed by the Study Team. Using such modules, it is believed that anybody can be an instructor and can learn about PCs or Internet usage. It will be necessary to publicize the training modules or to give beginners opportunities to use them freely at RIC. An assistant who can help beginners is necessary for the people's self learning.

6.3.3 Website Training Course

There was enough participation in the course at each RIC. The committee members who were selected by each committee were very interested in the training and very eager to learn to how improve their RIC website.

As a result of the two days training at each RIC, there have been at least one or two members who could completely understand concepts and basics and also to update the contents of the RIC websites. And, most of participants could finish the training course. They updated the contents of their websites several times by the end of the Model Projects. However, some of the participants couldn't follow the training.

Problems and Recommendations are shown below.

- The number of training sessions and training hours were not adequate for the participants as a website beginner's training course. Repeated and periodical practice will be necessary for them in future.
- For the website training course, the communication lines of Sg. Air Tawar and Bau RICs, fixed telephone lines, seemed to be inadequate to upload source files of websites. It sometimes took a long time to upload files. It may be changed broadband communication lines like ADSL in future.
- The committees should select or arrange participants who are the most suitable as the webmasters for their RIC website. The persons in charge of their RIC websites were absent from the Model Projects.

CHAPTER 7 IMPLEMENTATION, EVALUATION AND FEEDBACK OF RIC MANAGEMENT

7.1 RIC Operation

7.1.1 Outline of Operation

The operating hours of RICs are basically same as the hours of the facility housing the RIC. The operating hours of Sg. Air Tawar RIC are the same as the post office, that is, from 08:30 till 17:00 from Monday to Saturday except for the first Saturday of each month, and it is closed every Sunday and from 12:30 till 14:30 every Friday for Islamic prayer.

Bau RIC opens from 08:00 till 17:00 every day except for from 12:30 till 13:30 for lunch hour. In addition, there is a 24 hour security system with a guard in the Civic Center in Bau, which can allow the RIC to basically operate their business at any time. Therefore, for the people who can not visit the RIC during the daytime on weekdays, the RIC has opened from 10:00 to 19:00 Tuesdays and Thursdays since the third week of October. Also, the RIC has offered the IT training course for beginners on each weekend during the period of the model project. However, with the aim to fill the needs of Sunday users, they experimentally opened the RIC for general users, but not for the IT training course, on both Sundays of Oct. 27th and Nov. 3.

Outline of RIC Operation

Site	Location	Operation Hour	Holiday	Remarks
Sg. Air Tawar	Post Office	08:30-17:00	First Sat. and Sun.	Closed 12:30-14:30 on Fri.
Bau	Civic Center	08:00-17:00 10:00-1900	None	Until second week of Oct. Closed 12:30-13:30 Every Tue. & Thurs. from third week of Oct. Closed 12:30-13:30
Kota Marudu	Post Office	08:00-17:00	First Sat. and Sun.	Closed 12:30-14:30 on Fri.
	District Office	08:00-17:00	First Sat. and Sun.	Closed 12:30-14:30 on Fri.
	Library	09:00-17:00	First Sat. and Sun.	

In principle, the caretaker of the building is responsible for the locking and unlocking of the building (the security management). However, in the Civic Center in Bau, the monitors employed by the Study Team usually locked and unlocked the building. When the monitor could not lock and unlock, the guards of the Civic Center locked and unlocked the building.
The monitor employed by the Study Team carried out the basic and regular RIC operation. The monitor implemented the below-stated works. The Study Team instructed the monitors, while at the same time supervising the RIC Operation.

- Switching the PC power on and off

- Answering questions from users, Easy instructions (How to use the software. How to connect to the Internet. How to use PCs. How to use the Self Tutorial, etc.)
- Implementing the IT training course in response to the requests of general users
- Implementing the questionnaires to users. Entering the data into the Excel file for the calculation
- Managing the register of users
- Managing the schedule of the IT training courses (Arranging the schedules of trainees. Cooperating with trainers for the arrangements)
- Implementing the questionnaires on the IT training courses. Entering the data of the questionnaires into the Excel file for the calculation
- Preparing the Weekly Reports and sending them to MECM and the Study Team.
- First aid handling for PC troubles. Requesting trouble shooting from the supplier and being a liaison with the supplier
- Presenting the results of monitoring and IT training at the meetings of the RIC Committee
- Controlling the appropriate utilization of RIC (Controlling the users' installations and games, and when there are many users.)

7.1.2 Evaluation and Feedback of Operation

It can be said that the permanent existence of the monitor has played an extremely significant role for the appropriate RIC Operation. In the 14 existing RICs including that of Sg. Air Tawar, the chiefs of the post offices have played the role of the monitor, as requested by MECM. However, they were so busy with their postal businesses that they could not play the role of the monitor well. However, in the model project, a full-time monitor was permanently stationed at the RIC. Consequently, the Operation was carried out appropriately.

In Sg. Air Tawar, before the implementation of the model project, children installed and played game software without permission. However, during the period of the model project, the monitor watched those behaviors. Consequently, no one installed and used games without permission.

In addition, the PC beginners and the users who lost their way on how to operate the PC could get instructions from the monitor. Besides this, in response to the requests of users, simple training with the training material was available. Therefore, the effects of the training courses could be obtained in more extensive areas, and utilization by persons who were not familiar with PCs was promoted.

In addition, the monitor urged the users of the facilities such as a post office, where the RIC was established, to use the RIC, contributing to the publicity promotion and use of the RIC.

Also, the monitor monitored the conditions of the daily use and reported the results to the Study Team and MECM. Thanks to this, MECM could continuously be aware of the current conditions in KL.

In addition, in Bau and Kota Marudu, PC troubles happened occasionally. However, these troubles were discovered and dealt with in their earlier stages, and the information regarding those troubles was quickly and appropriately conveyed to the maintenance supplier and the Study Team.

Also, when no one was waiting for the use of PCs, some users stayed on for a long time. But, the monitors coordinated such users. That is, when a new user came, the monitor urged an old user to vacate the seat. Therefore, the monitors contributed to the appropriate use of the RICs.

7.2 RIC Committee

7.2.1 Establishment of RIC Committee

(1) Sg. Air Tawar

In Sg. Air Tawar, the RIC Committee was established at the same time as the RIC was initially established in March 2000.

The state legislator became the Chairman and assigned other members to establish this RIC Committee. However, except for the launch of the HP, the committee did not engage in any obvious activities as the RIC Committee. In addition, due to the personnel changes, the number of the members was gradually reduced, which finally drove the committee to its natural extinction.

Later, Sg. Air Tawar was selected as a site for the Model Project by the JICA Study Team. Following this move, in March, the Chairman who was a state legislator resigned and became the Advisor and assigned the new Chairman and Secretary of the RIC Committee. The new Chairman and Secretary of the RIC Committee assigned other committee members.

In August, all of the committee members assigned assembled to hold the first establishment meeting. At this point, the new RIC Committee was established. This RIC Committee consisted of 21 members.

Compared with the other two sites, Sg. Air Tawar, which originally consisted of 2 Mukims or 13 Kampong, is a smaller community. Besides, the committee members are acquaintances of the Chairman and the Secretary . Therefore, the cooperation in Sg. Air Tawar is strong.

The composition of the committee members of Sg. Air Tawar is as follows.

Establishment of Sg. Air Tawar RIC Committee

Mar. 2000	Establish Original RIC Committee
Mar. 2002	Original Chairman Appointed New Chairman and Secretary for New RIC Committee
Aug. 2002	Establish New RIC Committee

Constitution of Sg. Air Tawar RIC Committee

Position	Organization
Chairman	Assistant School Headmaster
Vice Chairman	School Teacher
Secretary	School Teacher
Assistant Secretary	School Teacher
Advisor	State Assemblyman
Members	4 School Teachers Post Master Ethnic Group Student Women's Association 2 Agriculture Dept. 4 Youth Association 2 JKKK

The Study Team asked the Committee to select around five persons with certain PC skills for the Task Force. The committee members negotiated to select the members of the Task Force. As a result, five members of the committee were selected. The members with high IT literacy, such as the persons being engaged in computer-related jobs and persons learning computers in colleges, were selected. The monitor employed by the JICA Study Team was included in these five members.

The Secretary, who selected the members of the RIC committee in Sg. Air Tawar, expected that if he selects many, some of those who have higher motivations would stay in their positions. Therefore, he selected more people than those actually needed. Consequently, there are 21 members.

The board of this RIC Committee consists of 4 schoolteachers. In total, 11 members are schoolteachers. The high proportion of schoolteachers characterises this RIC Committee.

Besides, one of the members, whose wife has run the PC training center, is a schoolteacher. And, the other member, who has worked for the PC-related business, is a

member of Youth Association. Therefore, it can be said that many of the members are highly IT-literate.

In addition, the Chairman and the Secretary selected the members, which means that the members have known each other very well. Therefore, it can be said that the relationship among the members of the RIC Committee is relatively strong.

(2) Bau

The RIC Committee consists of 13 members as below stated.

After Bau was selected as an RIC site, MECM asked the State Government to help select the members. The State Government then informed the District Office that an RIC would be established in Bau. At this point, the State Government requested that the District Office establish the RIC Committee. The District Office held a Community Meeting consisting of all Heads of Departments and Area Leaders (The representatives of the leaders of some kampongs) to decide the composition of the RIC Committee. This resulted in a system whereby, if the Agriculture Dept. was chosen as a component member, the Head of the Agriculture Dept. would choose the representative of the Dept. In short, the composition of the RIC Committee was decided by the "Community" (the representatives). Then, each component organization selects a member. Therefore, unlike the RIC Committee in Sg. Air Tawar, which was established through a personal network, the RIC Committee in Bau was organized through a top-down (bureaucratic) approach by the administrative organs. Therefore, the members of the RIC Committee did not always know each other and the relationships among them were not always friendly.

Also, some of the members are the Heads of Departments and, they have not regularly attended the Committee Meetings. For example, the District Officer, who is the Chairman, attended the Committee Meetings only three times out of ten. In an effort to fill this gap the Assistant DO, who is the Secretary, has managed the Committee, and done so effectively. However, the Assistant DO lacks the authority to act as chairman and this has had a negative effect on both his output and his outlook.

He has been very busy, too and this has resulted in some problems, such as the delay of the announcement on holding the Committee Meeting. Because the announcement on holding the Meeting came on very short notice, the Committee Meeting, had to be cancelled on the same day it was scheduled due to a shortage of attendees. In addition, since the WS-2 meeting was announced to the members of the Committee just two days before it was scheduled to be held, only 8 members could attend.

Establishment of Bau RIC Committee

Feb. 2000	Establish RIC Committee
Mar. 2002	Decision on RIC Location

Constitution of Bau RIC Committee

Position	Organization
Chairman	District Officer
Vice Chairman	Education Officer
Secretary	Assistant District Officer
Members	3 School Teachers District Council Police Dept. Telekom Malaysia Civic Center Agriculture Dept. Post Office Information Dept.

As for the Task Force, the Study Team asked the Committee to select around five persons with certain PC skills. As a result, six persons were selected. The Committee members negotiated with each other and chose the members of the Task Force based on their PC skills and positive personalities. Five of the six persons are members of the committee, and the other one was a young person from the Education Department, to which the Vice-Chairman of the Committee belonged. Also, three of the five who are committee members are also secondary school teachers. The IT literacy of two of them is so high that they have created their own Home Pages.

(3) Kota Marudu

After Kota Marudu was selected as an RIC site, the District Office sent letters to all of the departments and organizations concerned, in accordance with the guidelines of the composition of the committee members shown by MECM. The departments and organizations concerned selected their own representatives to be members of the RIC Committee. Therefore, unlike the RIC Committee in Sg. Air Tawar, which was established through the personal human network, the RIC Committee in Kota Marudu was organized through a top-down (bureaucratic) approach by the administrative organs. However, the DO has known many of the members and has demonstrated leadership. Therefore, the instructions from the DO were conveyed to each member more easily than in Bau.

However, while the DO eagerly demonstrated the leadership, other members were so passive that they hardly spoke at the meetings. With the aim to improve such a condition, the Study Team proposed a plan to add new members to activate the RIC Committee. Later, some of the participants of the Photo Contest Workshop, who were

active, were assigned by the DO as the new members from the next meeting. Thanks to this, all of the members got aggressively involved in the meetings, in which, previously, only the DO had spoken. Consequently, the meetings were revitalized.

Establishment of Kota Marudu RIC Committee

Feb. 2000	Establish RIC Committee
Jun. 2002	Decision on RIC Location (Post Office, District Office, Library)
Sep. 2002	Add new Member

Constitution of Kota Marudu RIC Committee

Position	Organization
Chairman	District Officer
Vice Chairman	Information Officer
Secretary	Secretary of District Officer
Members	2 Information Dept. 2 Agriculture Dept. Native Court 2Telekom Post Office State Library Parliament Office 2 PUSPANITA 3 District Office Magistrate's Office Public Works Dept. Chinese Chamber of Commerce

As for the Task Force in Kota Marudu, all of the committee members hoped to be trained for the Web and to be engaged in the updating of the Web site. Therefore, all of the members became the members of the Task Force.

7.2.2 Evaluation and Feedback of the RIC Committee

As for the RIC Committee in Bau, the Secretary himself has had a strong awareness that he has played the role on behalf of the Chairman. Due to this, it could be said that the ownership was insufficient. Therefore, it is desirable that the members who are busy and find it difficult to effectively act for the RIC Committee, like the DO, take a step backward to support and advise from behind. In the new RIC Committee in Sg. Air Tawar, a state legislator, who was the Chairman, resigned the post to become an advisor. After he completely handed over his work during the first two meetings, as ex Chairman, he supported the RIC Committee from behind. In addition, the new Chairman could attend all of the meetings. Consequently, the new RIC Committee could act aggressively.

It is desirable that the persons who can act effectively become members of the RIC Committee. It is also desirable that the persons who are representatives of organizations or communities and find it difficult to effectively act support the RIC Committee as the advisors from behind.

Also, in Sg. Air Tawar, the members were selected through a personal network. Therefore, the members have known each other well. On the other hand, the members were selected through the top-down approach in Bau and Kota Marudu. Therefore, the relationships among members have not been always close. In addition, there are some cases where the members, who were the representatives of organizations, were so busy that they could not get aggressively involved in the activities of the RIC Committee.

However, on the other hand, the RIC Committee must involve the local organizations in it. That is because, especially in rural communities, the local organizations have played important roles.

Under such circumstances, in Kota Marudu, some participants of the Photo Contest Workshop, who were interested in IT and were active community members, were newly added to the RIC Committee. And, subsequently, the RIC Committee successfully revitalized itself.

Therefore, in order to involve the local communities, it is important for the RIC Committee to select members through both of the top-down selecting approach and the bottom-up approach of selecting members who know and approve of one another. Through the latter approach, close relationships among members can be created to some degree to activate the RIC Committee.

Also, it can be said that, like the case of Kota Marudu, it is important to add new active members as necessary to continuously revitalise the RIC Committee.

CHAPTER 8 IMPLEMENTATION, EVALUATION AND FEEDBACK REGARDING HUMAN RESOURCE DEVELOPMENT FOR RIC MANAGEMENT

8.1 Committee Activities for Manpower Development

During the implementation period of the Model Project, the RIC Committee mainly carried out the activities stated below, under the support of MECM and the Study Team. Through the actual experience of these joint works, the manpower of the RIC Committee was developed.

- RIC Committee Meetings
- Preparation and implementation of the Opening Ceremony(WS-1)
- Preparation and implementation of the Photo Contest Workshop
- Collection of Web information
- Training for the Task Force
- Updating of Web sites
- Preparation and implementation of WS-2
- Publicity

8.1.1 RIC Committee Meeting

After the establishment of the RIC Committee, several RIC Committee Meetings were held. After the start of the Model Project, regular meetings of the RIC Committee were held every two weeks. At the regular meetings, the Study Team played the role of the facilitator to make the RIC Committee itself proceed with the meeting in principle.

The details of the proceedings of each regular meeting are as follows.

(1) Experience Sharing

The experience sharing is carried out so that the members who could not attend the last meeting can share the details of the activities done since the last meeting and all of the participants can review such details. In this section, the members who participated in events such as the Opening Ceremony, the Photo Contest Workshop, and the Task Force Training make reports.

(2) Report of Monitoring Update

The monitor makes a report on the results of the monitoring activities carried out since the last meeting. At this section, the monitor makes a report on good points, achieved points, and problematic points of the results of the monitoring activities.

(3) Report of IT Training Course

The trainer or the monitor makes a report on the training courses. At this section, the results, the conditions of applications, the problematic points, etc., are reported.

(4) Web Contents

The member of the Task Force makes a report on the condition of the Web contents. At this section, the current condition and the contents updated from the last meeting are reported. Next, the members of the RIC Committee discuss the contents, what they want to add or update, while at the same time submitting the data they have collected.

(5) Problems

Present the problematic points to discuss solutions.

(6) Actions to be taken

Exchange the opinions on the actions, which the RIC Committee wants to carry out in the future, and examine the concrete actions.

(7) Next Action and Schedule

At the end of the meeting, confirm the concrete actions emerging at each section, their schedules and the respective members in charge for those actions.

The details of the meetings of each of the three selected sites are as follows.

(1) Sg. Air Tawar

In Sg. Air Tawar, during the period of the Model Project, eight meetings were held. The former Chairman, who was a state legislator, attended the first establishment meeting of the new RIC Committee to hand over his responsibilities. He also attended the second meeting, where the Study Team met the members of the new Committee for the first time, to introduce new members and hand over his responsibilities. After the first two meetings, the new RIC Committee had completely taken over from the old Committee. And the state legislator, who was the former Chairman, took a step backward to become an advisor.

The RIC Committee held the fifth and eighth meetings to prepare for W/S, based on their own judgement. The former Committee was not active, but the new Chairman could attend all the meetings. Consequently, positive actions such as the preparation of the training plans and the publicity activities by the RIC Committee have emerged.

Sg. Air Tawar RIC Committee Meeting

No	Date	Agenda
1	2/Aug	Introduction of RIC Committee
2	6/Aug	Introduction of Model Project
3	15/Aug	Homepage Data Collection
4	27/Aug	Preparation of Opening Ceremony
5	30/Aug	Preparation of Opening Ceremony
6	27/Sep	Regular Meeting
7	15/Oct	Regular Meeting
8	28/Oct	Preparation of W/S-2

(2) Bau

In Bau, during the period of the Model Project, ten meetings were held. The DO, who was the Chairman of the RIC Committee in Bau, was so busy that he could attend only three of the ten meetings. Due to this, the meetings were chaired by the Assistant DO, who was the Secretary of the RIC Committee. Therefore, no member who could demonstrate the leadership was present. As a result, the RIC Committee has not gotten involved in aggressive activities.

At the seventh meeting, the Study Team asked the RIC Committee what kind of activities they want to do in the future. In response, the RIC Committee answered that they did not know what to do and wanted recommendations from the Study Team. The impression of the RIC Committee was passive.

The eighth meeting was scheduled for 8th Oct. But the announcement was too late in coming, and the meeting was suddenly canceled on the very day it was scheduled to be held.

However, later, at the eighth meeting held on 16th Oct., the RIC Committee made decisions on the following items at its own discretion.

Send a letter to JKKK to ask them to provide the information on kampong.

Request the ICT Unit of the State Government to provide more training courses because the two-day Task Force Training is short and they want to be trained more.

Bau RIC Committee Meetings

No	Date	Agenda
1	21/Feb	Introduction of RIC Project & RIC Committee
2	22/Feb	Selection of RIC Site
3	1/Mar	Decision on RIC Site = Civic Center
4	18/Jun	Introduction of Model Project
5	7/Aug	Preparation of Opening Ceremony Homepage Data Collection
6	13/Aug	Room Preparation (Air Conditioner)
7	19/Aug	Preparation of Opening Ceremony, Room Preparation, Homepage Data Collection
8	20/Aug	Preparation of Opening Ceremony Homepage Data Collection
9	20/Sep	Regular Meeting
	8/Oct	Canceled
10	16/Oct	Regular Meeting Preparation of W/S-2

(3) Kota Marudu

In Kota Marudu, during the period of the Model Project, six meetings were held. The Chairperson, who is a District Officer, could attend most of the meetings though she was very busy. Committee members were very quiet in the first three meetings except for the Chairperson. The RIC Committee held the meetings to prepare for W/S with the leadership of the Chairperson.

But the Committee became active after new members were added. Then the members came to speak at the meetings and the discussions were exciting. Consequently they were motivated. Then all members wanted to be a Task Force member and to attend the web training course to get the skills to be able to update their homepages.

Kota Marudu RIC Committee Meetings

No	Date	Agenda
1	26/Feb	Introduction of RIC Project & RIC Committee
2	18/Jun	Introduction of Model Project
3	3/Aug	Preparation of Opening Ceremony Homepage Data Collection
4	19/Sep	Regular Meeting
5	9/Oct	Regular Meeting
6	25/Oct	Regular Meeting Preparation of W/S-2

8.1.2 Opening Ceremony

At the start of the implementation of the Model Projects, community workshops(WS-1) were held for the 3 model sites with the following objectives.

Publicize the function and usefulness of IT and the Internet for the community (Diffusion and Education).

Publicize the function and usefulness of the RICs, as well as the objectives and the programs of the Model Projects, in order to secure the understanding, cooperation and participation of the community (Publicity).

Activate the implementing organizations for the model projects (Activation).

The people of each community were invited to a demonstration of Internet use by the Study Team or by the counterparts together with the Committee members.

Instruction to Elderly Woman by RIC Committee Member

The workshops were held using the following approach. The Committee took the lead and the Study Team and the counterparts supported and facilitated them. This was OJT and technical transfer for management and capacity building.

Outline of Opening Ceremony

Site	Date	No. of Participants
Bau	26th Aug. 2002	70 Participants
Sg. Air Tawar	5th Sep. 2002	110 Participants
Kota Marudu	10th Sep. 2002	80 Participants

The program of the opening ceremony is shown below.

Opening Ceremony Program

Schedule	Program
9:00	Introductory Speech
9:10	Briefing on Rural Internet Program
9:30	Briefing on Model Project
10:00	Opening Speech
10:30	Introduction of RIC Committee Members and Briefing on Community Activity
11:15	Demonstration on Web Page, Application of e-Reservation etc
11:45	Briefing on IT Training Program
0:00	Hands-on session of RIC Facilities
14:00	Workshop (Getting Free e-mail Account, Web Demonstration, Self Training Kit)

8.1.3 Photo Contest Workshop: A Workshop for Community Participation

Workshops were carried out to facilitate community participation. The workshops also aimed to develop a home page for each RIC in a sequential manner. The objectives of the workshop were the following:

- To facilitate community participation through enjoyment and the experience of home page development.
- To develop home pages for each RIC in a sequential manner.
- To give them a chance to become aware of the regional characteristics.
- To encourage the participants to be interested in the Internet and the RIC activity and to enjoy them.
- To publicize the RIC at the workshop and by word of mouth of the participants.

Introduction by RIC Committee Member

Curiously taking a close look at Digital Camera

An attractive event called the "Photo Contest Workshop (Hunt Walk for Regional Treasures)" was organized and carried out for three sites by the RIC committee and the facilitators (the Malaysian consultant and the Study Team member).

Site	Date	No. of Participants
Sg. Air Tawar	6th Sep. 2002	20 Participants
Bau	7th Sep. 2002	20 Participants
Kota Marudu	11th Sep. 2002	35 Participants

Participants are RIC Committee members and community people invited by the committee.

First Experience of Using Digital Camera

An outline of the workshop is as follows.

- Take and select digital photos for "Local Photo Gallery Page" in the RIC homepage
- Photos taken by community members were used for RIC homepage.
- Take photos of local treasures like historical spots, tourist spots, famous persons, nice views, etc.

Group Travel like a Picnic

Around 20-30 participants from RIC Committee members and community people invited by the committee were gathered.

AM:

- Introduction and Grouping (3-4 Groups)
- Short group discussion to decide where and what to photograph
- Group travel to take photos

Shoot in Ethnic Costume

PM:

- Photo presentation by group
- Selection of photos


Selection of Best Photo

The participants were very interested in using digital cameras because it was the first time for most of the participants. They also enjoyed themselves. The group travel seemed like a picnic. A group took a van and members were talking while on the trip. A group in Kota Marudu took a boat ride on a lake.


Selected Photo

It was first time for a participant in Bau to go to a village located near the border of Indonesia which is an hour drive from center of the town, even though he had lived in Bau for more than 60 years. He had a good experience and found something new.

8.1.4 Task Force Training

A task force training was carried out for three sites.

Site	Date	No. of Participants	No. of Participants Acquiring Web Skill
Sg. Air Tawar	28, 29 Sep. 2002	6 Participants	3 Participants
Bau	3,4 Sep. 2002	6 Participants	6 Participants
Kota Marudu	1, 2 Sep. 2002	10 Participants	2 Participants

The target was Task Force Members of the three sites.

The objectives of the training was to learn how to update a homepage, to get the skill of using image processing and to upload to the server computer

Using the OJT method, the actual photos were processed, and the information was added and uploaded.

8.1.5 Collection of Web Contents Data/Information

During the preparation period before the establishment of RIC, the members of the RIC Committee collected the data and information for the home page contents. These data were sent to the Study Team, and the consultant, who concluded the contract with the Study Team, carried out the initial development.

8.1.6 Web Contents Update

After the initial development by the consultant, the three RICs carried out the Task Force Training.

Thanks to the training above stated, the members of the Task Force could update the home page. And, later, the home pages were updated.

In Sg. Air Tawar, the updating did not work, initially. However, later, they found out that the method was slightly wrong. Then, they successfully updated the home page.

Sg. Air Tawar

Date	Activity
5/Sep	Initial Development
29/Sep	Update Web Training
7/Oct	Update Trial & Error
8/Oct	Update Complete
16/Oct	Update
19/Oct	Update

In Bau, at the Task Force Training, the home page was updated through the OJT. However, the home page was not updated again.

Bau

Date	Activity
26/Aug.	Initial Development
3,4/Sep.	Update Web Training

In Kota Marudu, due to the shortage of the time for the Task Force Training, the home page could not be updated. However, after finishing the training course, the members of the Task Force updated the home page three times.

Kota Marudu

Date	Activity
10/Sep	Initial Development
8/Oct	Update
15/Oct	Update
18/Oct	Update

8.1.7 Workshop-2

Workshop-2 was held at the three sites at the end of the Model Projects to share and to evaluate the results of the Model Projects then to discuss further actions.

Workshop-2

Site	Date	No. of Participants
Sg. Air Tawar	1st Nov. 2002	24 Participants
Bau	4th Nov. 2002	33 Participants
Kota Marudu	5th Nov. 2002	38 Participants

The workshop included the following programs.

- Evaluation of the model project results
- Evaluation of the technology transfer results
- Web/Application demonstration and review
- Evaluation workshop (group discussion)
- Group presentation

8.2 Evaluation and Feedback of Manpower Development

With facilitation by MECM and the Study Team, the RIC Committee itself could plan and implement events and workshops to promote the aggressive activities of the Committee, which lead to successful Manpower Development. In addition, through the Task Force Training, the members could obtain the skills to maintain and control their Web site.

However, in order to nurture the ownership of the RIC Committee, the existence of a facilitator is needed continuously, even after the completion of the study.

The members of the RIC Committee could not at first fully understand the actual nature of an RIC and what their role and function in running it would be.. But once the RIC was established, they gradually come to understand these issues and gained ample experience through the daily activities and meetings of the RIC committee. Eventually they gained enough knowledge and understanding to develop their own ideas and objectives and to implement them. However, it can be thought that it was difficult for the members of the RIC Committee to understand and implement the activities of RIC and the RIC Committee in the initial stage of the establishment of the RIC Committee. With the facilitator pointing out problems, they can gradually find out problems and discuss them at meetings. However, the RIC Committee could not make final and clear decisions on who would do what, when, and how, by the end of a meeting. Therefore, in order to link the details of discussions to concrete conclusions and actions, it was important for the facilitator to finally confirm the details of discussions.

Consequently, it can be said that the support of the facilitator is important until the RIC Committee becomes mature enough to independently manage itself.

It seemed that all of the RIC Committees could not fully grasp what RIC is and what they should do in the first place. But, the more meetings were held, the more they could understand. Gradually their attitudes changed from passive to positive.

Even if the members of a RIC Committee discussed concrete actions that they want to do at the meeting, it is difficult for the Committee itself to make final decisions on by whom and when those actions would be done. Given this, it is important for the facilitator to confirm the details of the discussions at the end of the meeting. Therefore, the facilitator is needed continuously.

The Photo Contest Workshop worked well from the viewpoint of Manpower Development and other viewpoints. Through such enjoyable events, the members of the RIC Committee could be closely united. In addition, it was found that some of the participants of such events were interested in RIC. In Kota Marudu, some of the participants of this workshop were newly added to the members of the RIC Committee to revitalize the Committee.

Through the Task Force Training, the RIC Committees of Sg. Air Tawar, Bau and Kota Marudu have made it possible for their members update their home pages. The number of the members of those Committees who could update their home pages are: three in Sg. Air Tawar, six in Bau, and two in Kota Marudu. And, the members of the Task Forces updated their home pages, four times in Sg. Air Tawar, one time in Bau, and three times in Kota Marudu.

CHAPTER 9 IMPLEMENTATION, EVALUATION AND FEEDBACK OF PUBLICIZING AND COMMUNITY INVOLVEMENT ACTIVITIES

9.1 Publicity and Community Involvement

The following activities are included in the publicity in the Model Project.

- Implementing W/S-1, Publicizing RIC to DO, state legislators, RIC Committees, local representatives, and general residents.
- The Study Team prepared and distributed leaflets to publicize RIC.
- In Sg. Air Tawar, based on the decision made voluntarily by the RIC Committee, the letter was sent to the chiefs of kampongs, with the aim to publicize RIC.
- In Sg. Air Tawar, the RIC Committee voluntarily decided to collect contributions from local businesses to prepare three banners for the publicity of RIC.
- In Bau, with the cooperation of schools, the RIC Committee distributed leaflets to schools.
- In Kota Marudu, at the festival, the RIC Committee distributed leaflets for the publicity.
- In Kota Marudu, the logo mark of RIC was painted on the outside wall of the post office. The mark was painted by the state Pos.
- In Sg. Air Tawar and Kota Marudu, the signboards were made and placed in RICs.
- At the Photo Contest Workshop, the participants from communities were urged to learn about RIC.

The members of the RIC Committee themselves participated as the volunteers of the community. Also, through the RIC activities such as the Opening Ceremony, the training, and the Photo Contest Workshop, the local residents were involved in the Model Project.

Also, in order to collect the information for home pages, the RIC Committee asked the community to collect the information to promote the Community Involvement.

9.2 Evaluation and Feedback of Publicity

The findings of the surveys of the needs show that, in spite of the fact that most people of a community have used the post office, only less than 40% of them know RIC. Therefore, first and foremost, it is necessary to be aware of the presence of RIC.

With the presence of the monitor, it is easier for people visiting the post office to be made aware of the presence of RIC. Also, people can learn how to use RIC by asking the monitor. In addition, the promotion of the use by the monitor himself can work greatly for the publicity. .

In a post office where many people in a community visit every day, people can find out about RIC easier. But, in Bau, people rarely visit the Civic Center, unless they have to visit there for something special. It means many people do not visit the Civic Center so often. Therefore, the publicity is more important in locations such as the Civic Center in Bau.

From publicity viewpoints, both being located at the district office and training could attract many visitors and users to the RIC.

In Sg. Air Tawar, about 100 people are waiting for their turns to attend or interested to attend the training course. Many of them are the middle-aged and the elderly. The middle-aged and the elderly, who do not know how to use PCs, can not use RIC, even if they want to do. It can be said that offering the training course to those people, who are willing to use RIC or are willing to learn about PCs, is an extremely effective activity for publicity.

The events such as the Photo Contest Workshops were also very effective. In addition, the news of enjoyable events can be spread in a community through grapevines. Therefore, far-reaching effects could be obtained through those events.

In addition, the events such as the Photo Contest Workshop made the Community Involvement successful, which promoted the knowledge of the RIC and the understanding of and interest in the Internet.

CHAPTER 10 OVERALL EVALUATION AND FEEDBACK OF THE THREE MODEL PROJECTS

10.1 Evaluation and Feedback

10.1.1 RIC Use

The number of users has been monitored at the three sites since the beginning of the operation (the day after the Opening Ceremony) until the end of October. The number of first-time users has also been monitored.

RIC Use in 3 Model Sites

Items	Sg. Air Tawar	Bau	Kota Marudu
Number of Users			
- Total Number of Users	566 persons	682 persons	594 persons
- Total Number of First-time Users	112 persons	272 persons	205 persons
Operational Days	54 days 6/Sep. – 31/Oct.	62 days 27/Aug. – 31/Oct.	40 days 11/Sep. – 31/Oct.
Number of PCs	3 PCs	5 PCs	5 PCs
Average Number of Daily Users	10.5 persons/day	11.0 persons/day	14.9 persons/day
Average Number of Daily Users per PC	3.5 persons/day/PC	2.2 persons/day/PC	3.0 persons/day/PC
Average Number of Daily First-time Users	2.1 persons/day	4.4persons/day	5.1 persons/day
Average Number of Daily First-time Users per PC	0.7 persons/day	0.9persons/day/PC	1.0 persons/day/PC
Percent of Actual PC Occupancy per PC*	53%	36%	71%

*Note: A percentage of actual PC occupancy per PC means rate of PC occupancy assuming a user occupies for an hour to the actual operation hour, which excludes the time of training course and PC downtime.

The average number of daily users is 10.5, 11 and 14.9 persons in Sg. Air Tawar, Bau and Kota Marudu, respectively. But the number of PCs is 3, 5 and 5 PCs, respectively. Therefore the daily average number of users per PC is 3.5, 2.2 and 3.0 persons/day/PC, respectively.

While the average number of daily first-time users is 2.1, 4.4 and 5.1 persons/day, respectively. Therefore the average number of daily first-time users per PC is 0.7, 0.9 and 1.0 persons/day/PC, respectively.

The following table shows the RIC use in Kota Marudu by each station. Average number of daily users per PC at the District Office station is highest. But there were some training courses at the post office station. Excluding the training course time and PC downtime, the average number is fairly high at the post office. The reason is that so many people visit post office every day.

RIC Use at Kota Marudu

Items	Post Office	District Office	Library
Number of Users			
- Total Number of Users	363 persons	151 persons	82 persons
- Total Number of First-time Users	141 persons	48 persons	18 persons
Operational Days	40 days 11/Sep. – 31/Oct.	36 days 17/Sep. – 31/Oct.	36 days 17/Sep. – 31/Oct.
Number of PCs	3 PCs	1 PC	1 PC
Average Number of Daily Users	9.1 persons/day	4.2 persons/day	2.3 persons/day
Average Number of Daily Users per PC	3.0 persons/day/PC	4.2 persons/day/PC	2.3 persons/day/PC
Average Number of Daily First-time Users	3.5 persons/day	1.3 persons/day	0.5 persons/day/PC
Average Number of Daily First-time Users per PC	1.2 persons/day	1.3 persons/day/PC	0.5 persons/day/PC
Percentage of Actual PC Occupancy per PC*	93%	55%	47%

*Note: A percentage of actual PC occupancy per PC means rate of PC occupancy assuming a user occupies for an hour to the actual operation hour, which excludes the time of training course and PC downtime.

The following graphs shows the time changeof daily users and cumulative number of daily users at each site.

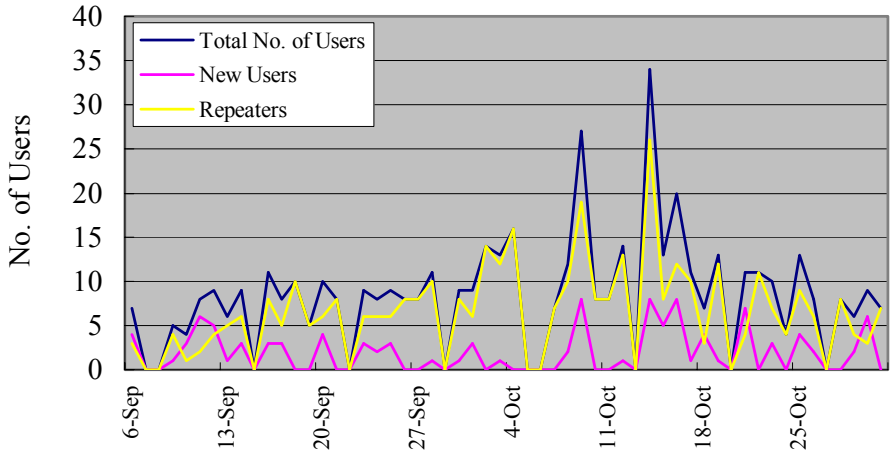

Figure III. 10.1: Time Change of Daily Users at Sg. Air Tawar

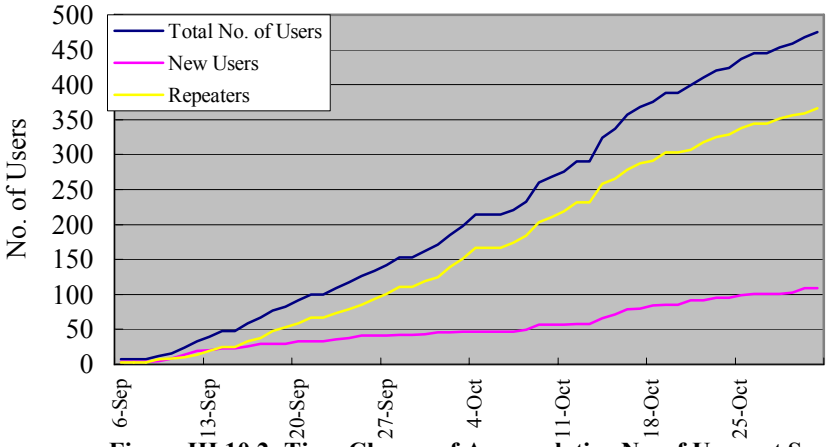

Figure III.10.2: Time Change of Accumulative No. of Users at Sg. Air Tawar

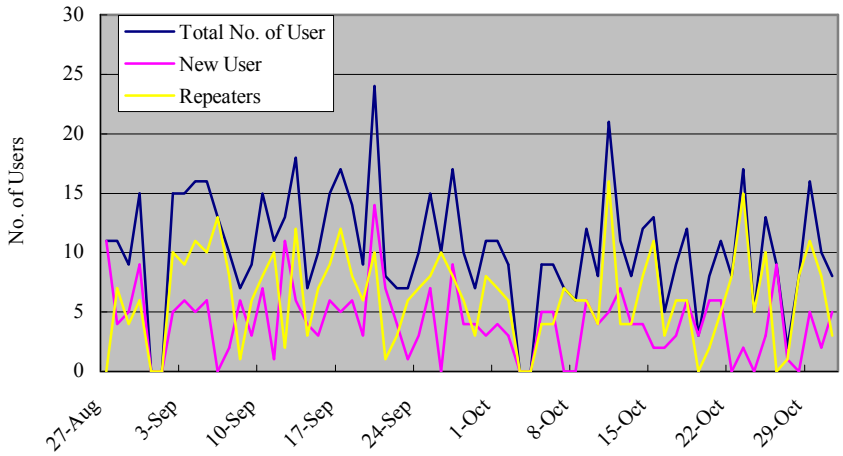

Figure III.10.3: Time Change of Daily Users at Bau

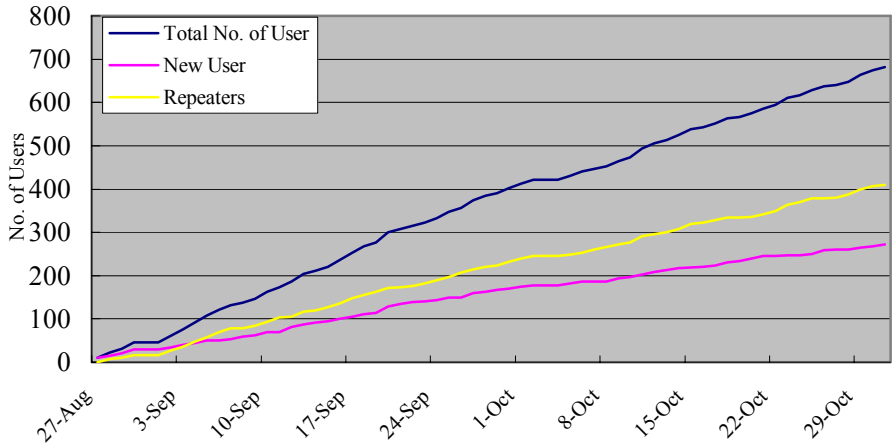

Figure III.10.4: Time Change of Accumulative No. of Users at Bau

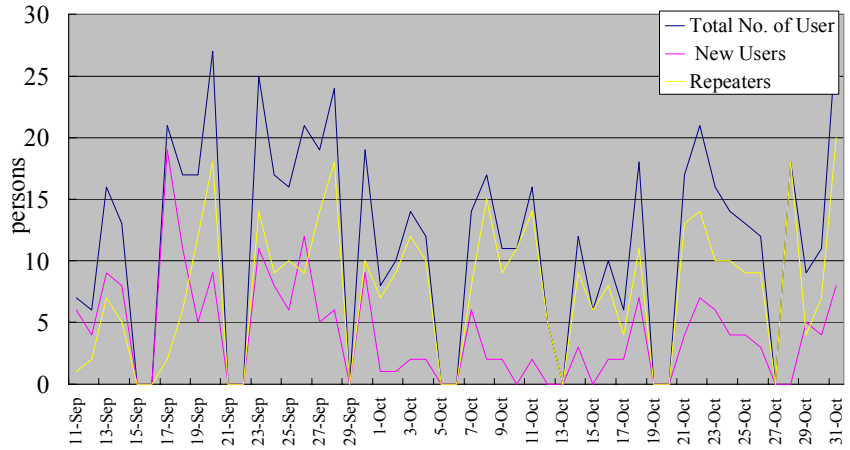

Figure III.10.5: Time Change of Daily Users at the Three Sites of Kota Marudu

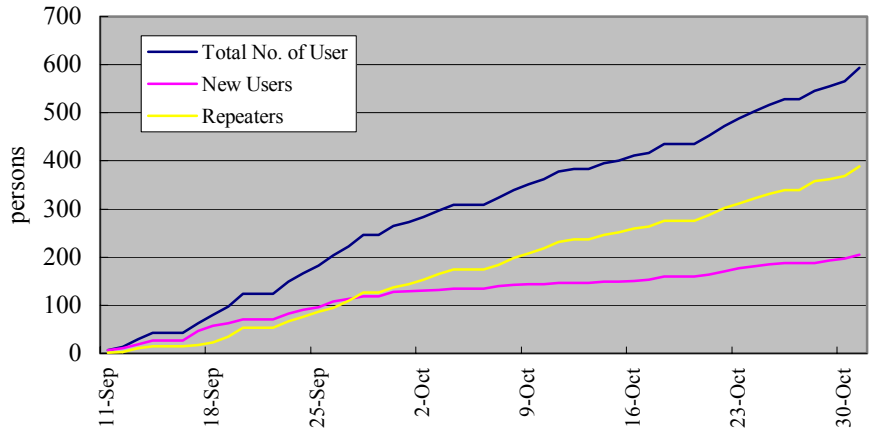

Figure III.10.6: Time Change of Accumulative No. of Users at the Three Sites of Kota Marudu

10.1.2 Attributes of Users

(1) Gender

There is no clear characteristic of users by gender. The proportion of users by gender is almost the same at all three sites. There are a few more male users at Bau and Kota Marudu while there are a few more female users at Sg. Air Tawar.

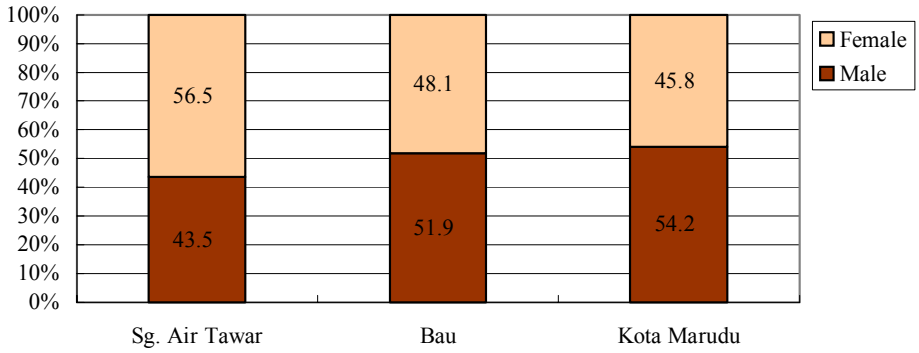

Figure III.10.7: Users by Gender

(2) Age Group

The majority of the users of the three sites are less than 29 years old. But middle-aged and elderly users, who are the target group of the RIP, represent one fourth (25.9%) of the total in Sg. Air Tawar which is the lowest among the three sites. The user age group over 30 years old represents 42.1% of the users in Kota Marudu which is the highest among the three sites and this is one of the characteristics of Kota Marudu. Also only 30% are less than 18 years old while around half in Sg. Air Tawar and Bau are in this age group. The reason is that the chairperson of the Kota Marudu RIC Committee is a district officer who intended to put a priority on middle-aged and elderly users in RIC operation. On the other hand, the proportion of users over than 50 years old is 10.6% in Sg. Air Tawar, which is more than in the other two sites.

Users by Age Group (%)

Age Group	Sg. Air Tawar		Bau		Kota Marudu	
6-12 years	9.4	47.1	16.1	54.2	8.0	30.0
13-18 years	37.6		38.1		22.0	
19-29 years	27.1	27.1	17.1	17.1	28.0	28.0
30-39 years	11.8	25.9	15.4	28.6	23.9	42.1
40-49 years	3.5		9.4		14.0	
>50 years	10.6		3.8		4.2	

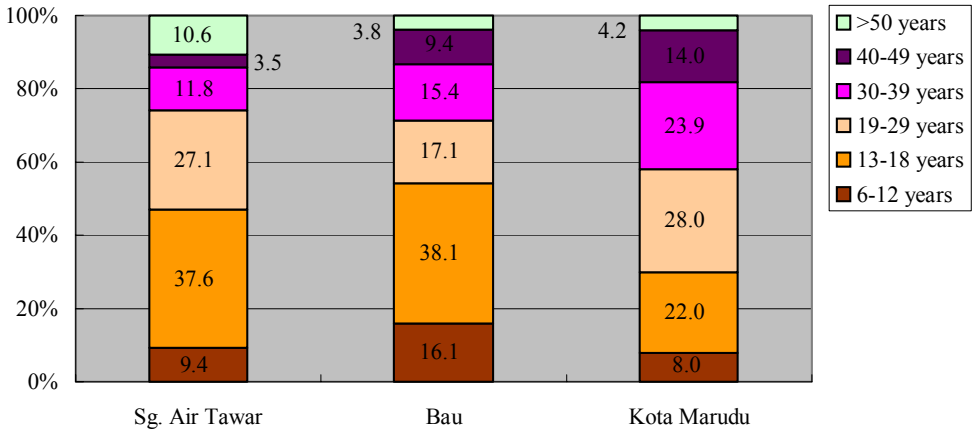

Figure III.10.8: Users by Age Group

(3) Occupation

The majority of users are students in all three sites. While more than 50% of users are students in Sg. Air Tawar and Bau, 39.39% of the users are students in Kota Marudu. In Kota Marudu more farmers are users than in Sg. Air Tawar and Bau.

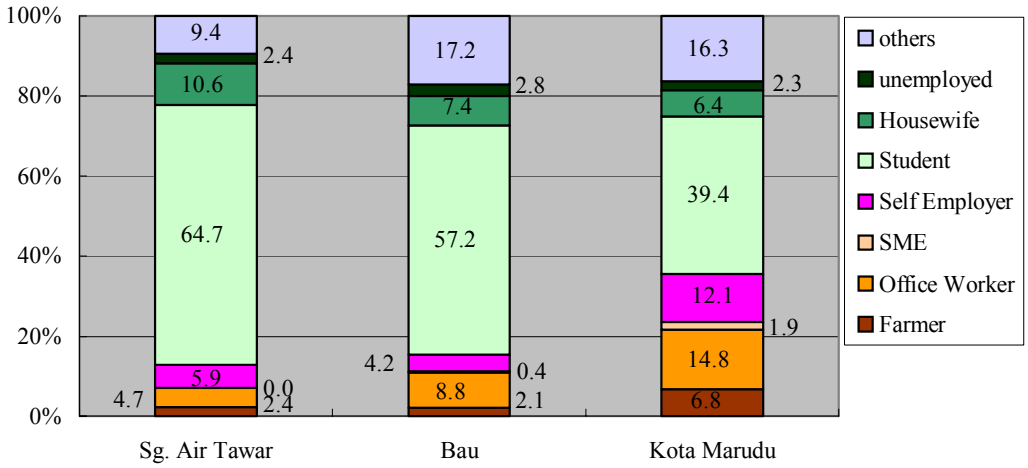

Figure III.10.9: Users by Occupation

(4) Experience with PCs and the Internet

Around one third of the users didn't have experience with PC use. They didn't have, outside the course, any experience with Internet use. This shows that the RIC was the first time to use a PC for them. Therefore, the RIC could contribute to the spread of PC users.

On the other hand, around one fourth of the experienced PC users had no experience with the Internet. This shows that they could access the Internet at the RIC. Therefore the RIC could contribute the use of the Internet by existing PC users.

A training program is very important and effective for beginning PC and Internet users and for those who have no Internet experience even though they have experience with PC use.

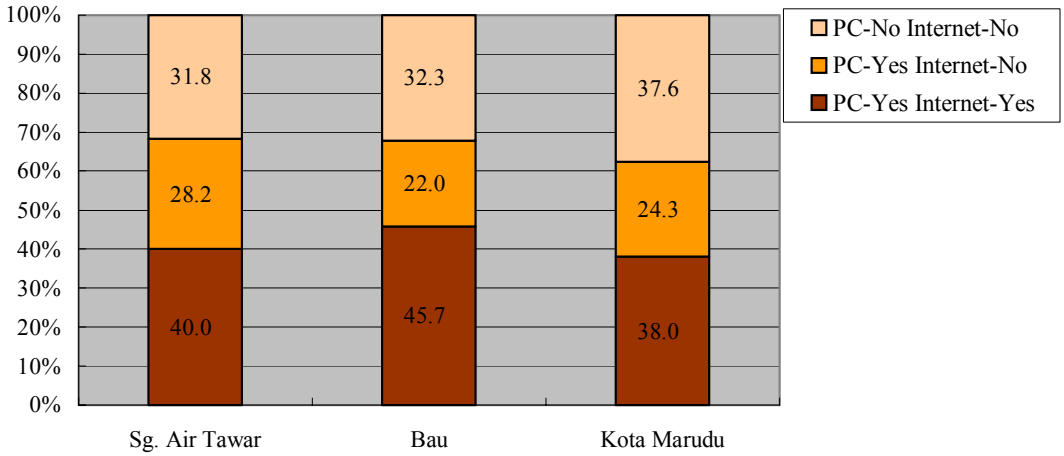

Figure III.10.10: PC & Internet Experience

10.2 Monitoring of Use

The following items were analyzed based on the questionnaire survey result. These items are related with what the users rethink about the RIC. Through analysis, the lessons reflected in the Action Plan can be obtained.

- Motivation of use (business, study, etc.)
- Purpose of use (Web browsing, e-mail, etc.)
- Reasons for using the RIC (free of charge, higher access speed, etc.)
- Intention to use RIC again
- Satisfaction with the RIC equipment and facility
- Request for extension of operation time

10.2.1 Motivation for Use

Motivation for use is shown in the following figure.

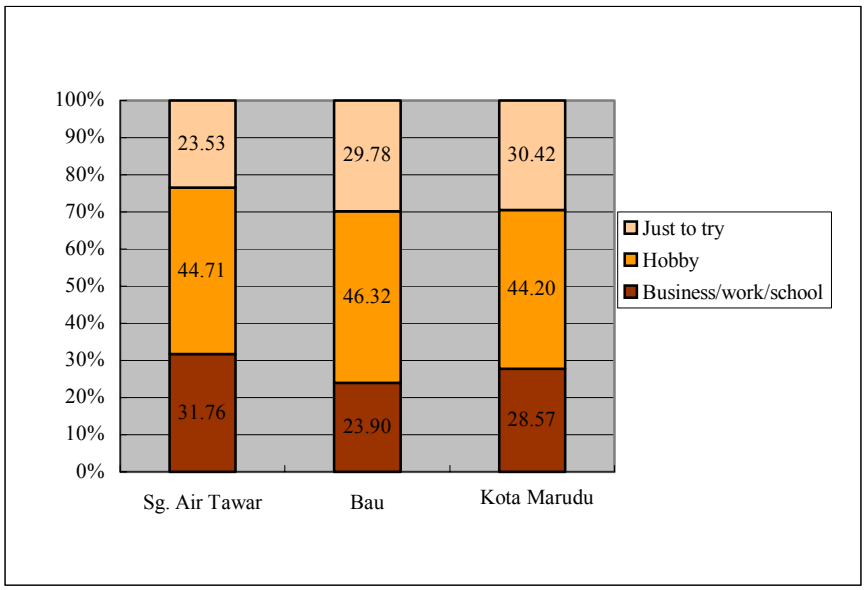

Figure III.10.11 : Motivation for Use

"Hobby" is the biggest reason for using the RIC. Using for "business, work and school work" and "just to try" followed with about the same ratio in the total. No significant difference is observed according to the model RIC. Excluding "hobby", the other two categories account for more than half of the motivation. Since "just to try" seems to increase the number of Internet/PC beginners, this motivation is considered to meet the objective of the RIC.

10.2.2 Purpose of Use

Purpose of use is shown below.

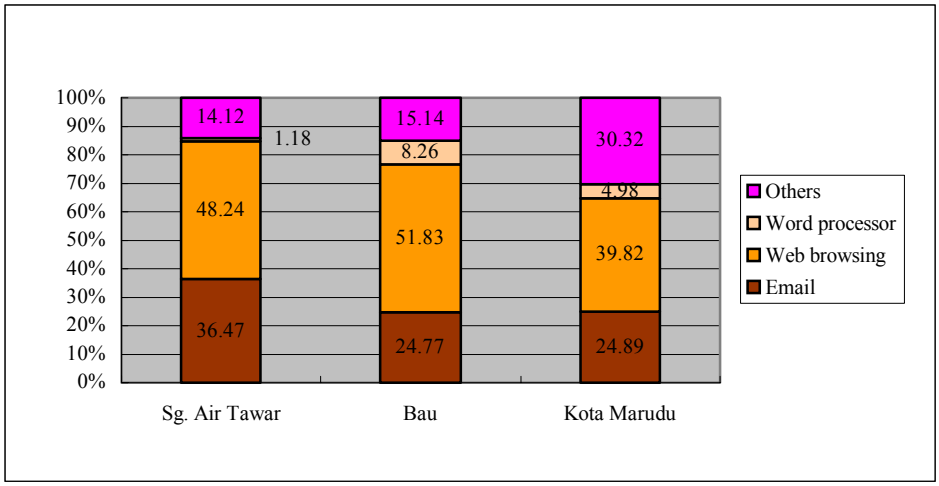

Figure III.10.12 : Purpose of Use

"Web browsing" is the major purpose for using the RIC, accounting for 40 % to 50% depending on the model. "E-mail" use follows. Together, the Internet use accounts for 65 % to 85 %. No significant difference is observed according to the model RIC. Internet service, which is a key function of RICs, is considered well utilized in the model RIC.

10.2.3 Reasons for Using the RIC

Reasons for using the RIC are shown below.

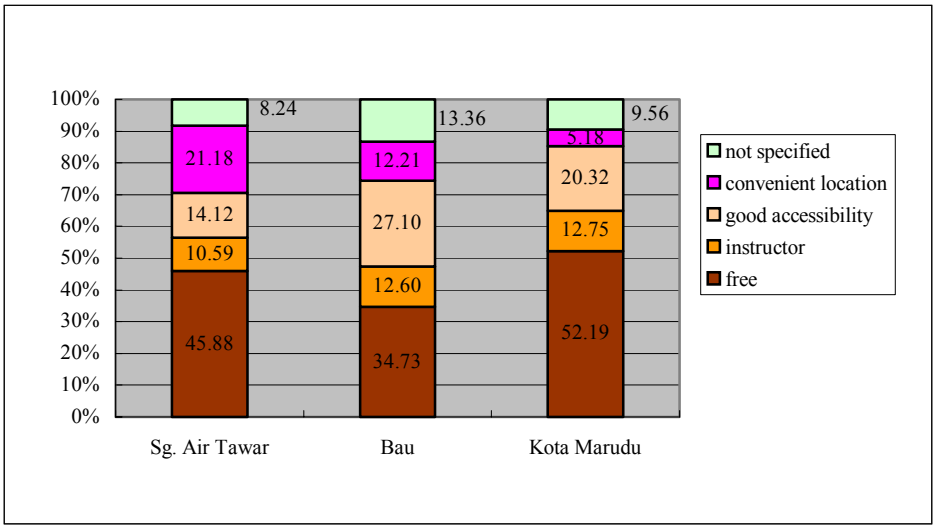

Figure III.10.13 : Reasons to come to the RIC

The biggest reason for using the RIC is the fact that it is "free of charge", accounting for from 35 % to more than half of the total. Second is the "convenient location" and "good Internet access" with about the same ratio. The ratio of "free of charge" is the biggest in Kota Marudu with more than half of the total which may be attributable to the fact that the average household income is the lowest among the 3 model sites. "Free of charge" is considered to be an essential condition for RIC/RIP to be implemented as a Government undertaking.

10.2.4 Satisfaction with Internet Access Speed

Satisfaction with the Internet access speed of the RIC facility is given below.

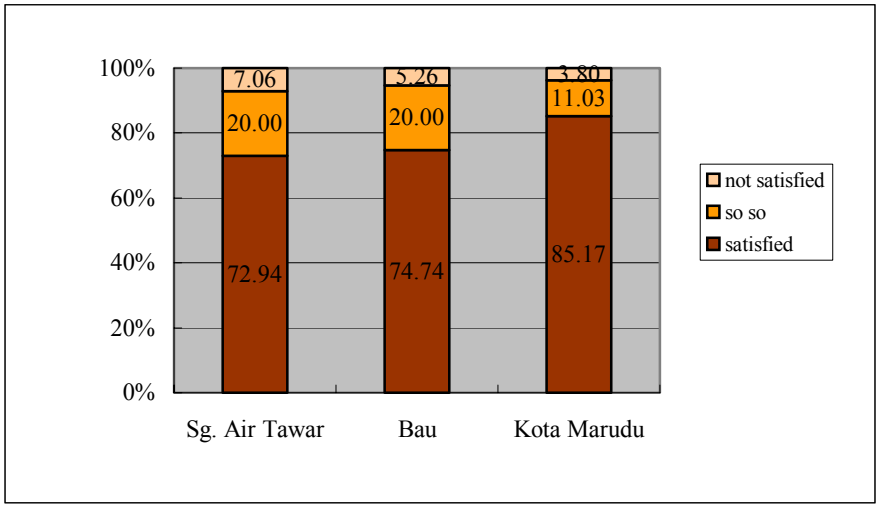

Figure III.10.14 : Satisfaction with Internet Access Speed

As shown in the figure, most of the users were satisfied with the access speed. Satisfaction level is the highest in Kota Marudu where the high speed system comprised of the leased line and wireless router network was established.

10.2.5 Satisfaction with the Number of PCs and RIC Space

Satisfaction with the number of PCs is much stronger for Bau and Kota Marudu models where 5 PCs were in service than for Sg.Air Tawar where 3 PCs were in service as given below.

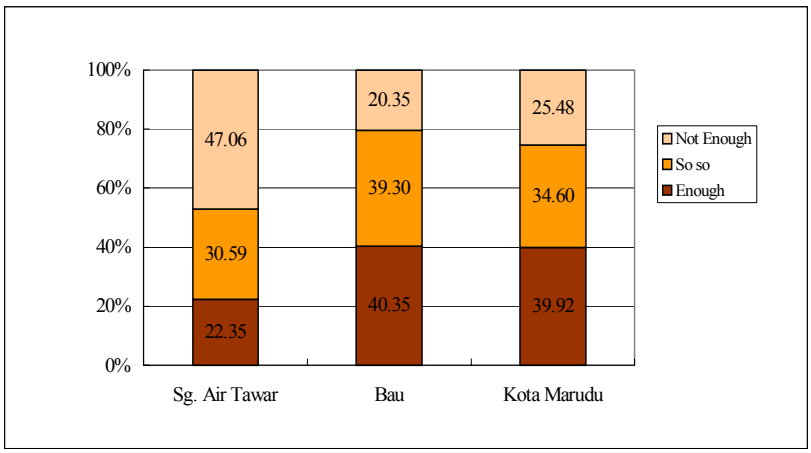

Figure III.10.15: Satisfaction with the Number of PCs

Satisfaction with the RIC space is similar to that for the number of PCs, as given below.

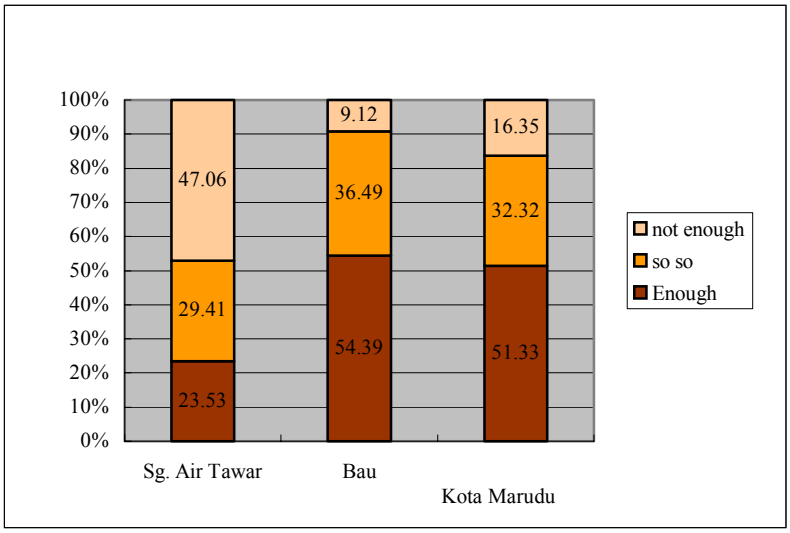

Figure III.10.16: Satisfaction with the RIC Space

In the case of the Bau and Kota Marudu models where the RIC space was about 30 to 60 m2, the majority of users were satisfied. Only one forth of the users were satisfied at the Sg.Air Tawar model where only a corner of the post office was availed for the RIC. Including "moderately", satisfied users barely exceeded half of the total.

10.2.6 Satisfaction with Web Contents

Satisfaction with Web contents is given below.

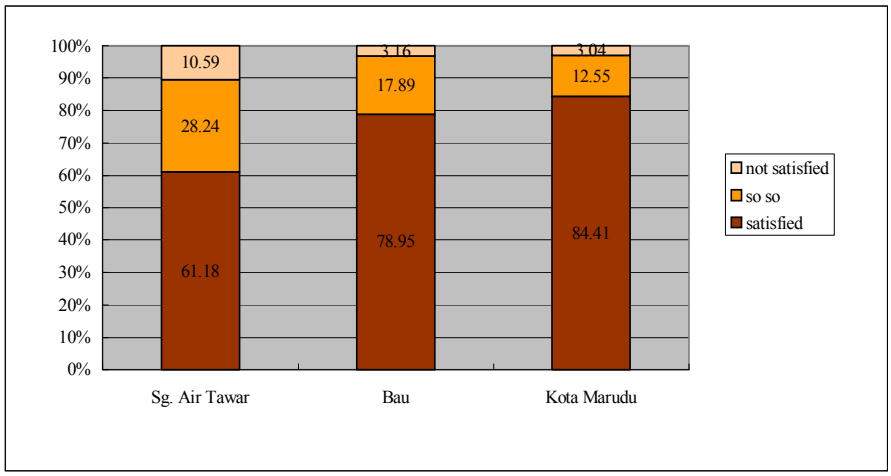

Figure III.10.17 : Satisfaction with Web Contents

Though some difference is observed according to the model RIC, the large majority of the users were satisfied with the Web contents, in particular the local homepage.

10.2.7 Satisfaction with the Business Hours

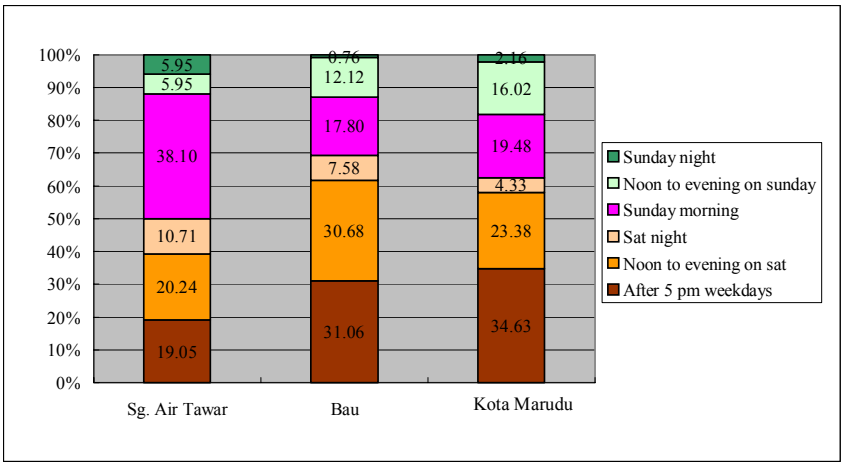

Figure III.10.18: Request for Extension of RIC Operation Time

Strong demand was identified for opening the RIC during the evening in weekdays and Sundays so that working people can use the PCs after their working hours and during their off days.

10.3 Financial Requirements

Cost estimations for the 3 model projects is shown in the following table. The cost is classified into initial cost and running cost.

Model Project Initial Cost **(1,000 RM)**

Item	Kota Marudu	Bau	Sg. Air Tawar	Total
1. System Hardware	41	35	23	99
2.. Network Equipment	104	1	1	106
3..Software	16	16	13	46
4..Web Hosting/IP Address	2	2	2	6
5.. Web Content Development	56	56	56	169
6. Furniture	6	6	4	16
7. Installation, Testing & Commissioning	7	6	6	18
8. Site Preparation	94	5	5	105
I9. Maintenance	21	11	7	39
Total	**348**	**139**	**116**	**603**

Running Cost during Model Project **(1,000RM)**

Item	Kota Marudu	Bau	Sg. Air Tawar	Total
Total	**117**	**75**	**57**	**250**

10.4 Overall Evaluation and Feedback to Other RICs

Judging from the observations and the monitored data analyses as well as the answers of the RIC users for the questionnaire survey, all 3 model RICs are considered successful. Major feedback is summarized as follows.

- Sg. Air Tawar model should be referred to and experience should be applied to the other pilot RIC for revitalization.
- Bau model was considered as successful model providing adequate space for RIC having the possibility of opening in the evening of weekdays and Sundays. However, strong publicizing activities should be carried out to raise its publicity.
- With high speed for Internet access with relatively high capital and running costs, Kota Marudu model should be applied for the communities with relatively high level Internet requirement.
- Kota Marudu model should also play the role of the advanced type of RIC to prepare for the rapid progress of IT environment in the coming years.
- The scope and services provided in the model projects are verified as appropriate except that the publicizing activities should be strengthened.
- The best model should be the combination of Sg. Air Tawar and Bau models having their strong points. The best model should meet the following requirements.
    - Having an adequate space for housing 4 to 5 PC.
    - Providing a separate room with friendly atmosphere to the users, in particular to the target age group above 18 years of age.
    - Being frequently visited by the rural people and community people having a sense of affinity.
    - Being able to operate in weekday evening and Sundays.

Accordingly, the best model should be a post office with annex for the exclusive use of RIC which meets all of the above requirements.