

BANNOK.COM COMPUTER CENTRE

BANNOK.COM AND RURAL DEVELOPMENT

Bannok.com was founded by the Mirror Art Group, which originally used performance media to convey social and political reflection and criticism to the public in Bangkok. In 1998, the Group moved to the Muang District of Chiang Rai, the northernmost province in Thailand, and worked with four hill-tribe ethnic groups in 16 communities in the area. It started with a Thai literacy program and through teaching Thai to community members the volunteer teachers had found many other development areas needed to work on. Gradually, various projects were initiated to address those development issues as seen in the table following.

Development Area	Project
Thai Citizenship	To Be Thai
Career/Employment, Local economy	Hill Tribe Eco-tour, e-Bannok.com (shop)
Local culture/content	Hilltribe.org (virtual museum)
Literacy	Bannok Teacher
Social awareness	Bannok Volunteer, Intern Student
Fundraising	Secondhand Clothing Fund, Hill Tribe Children Fund
Human trafficking	Back to Home (in Bangkok)
ICT for development	Bannok TV, Thai ICT, Bannok.com Computer Centre

The Group had adapted business approach in its financial management in order to make each project less rely on charity and outside funding and became more self-sufficient. About 30% of development and operation budget came from its own investment and reinvestment, and another 70% were obtained from grant proposals submitted to funding organizations.

grassroots and non-government organizations by providing computer training to other NGOs. Consequently, it was recognized as one of the leading NGOs in utilizing the technology for development work. When the Group moved to its current location, no other communication means existed except for postal service and land transportation. Satellite Internet connection became a necessary option to achieve fast, up-to-date and convenient information and communication. At the beginning, the connection was considered expensive, costing around 20,000 baht (USD 445) per month with unlimited data transfer. Nonetheless, the price gradually decreased. During the field visit, the Group used a package of 3,000 baht (USD 75) per month with a limit of 1.5Gb data transfer. Normally, its monthly usage exceeded the limit and the Group paid around 8,500 baht (USD 220) per month. Ideally, the Internet speed was 128/56kbps; however, it was usually slower and the connection was fluctuating.

Introduction

The Bannok.com¹ Computer Centre was an in-house facility created by the Mirror Art Group (Bannok.com), a Thai NGO. It was established in 2002. The motivation for establishing the computer centre was to enable the Group's IT unit to better support other development projects within the organization. As a result, Bannok.com Computer Centre focused on supporting Bannok's projects and staff, as its immediate clients. Its services were shaped to fulfill the immediate clients' needs, including solving their IT problems and promoting greater efficiency within the organization. This case study looked at how ICTs could be used or how the organization used ICTs to assist its works in rural, especially hill tribe, community development.

The initial investment was obtained through a proposal submitted to AOL and through other fundraising activities for purchasing hardware and constructing a one-story building. The equipment purchased included such as 10 computers with CD-writers, a printer, a facsimile machine and other equipment for local network system. The IT team of the Group was in charge of the Computer Centre and the services offered.

The Mirror Art Group started to use the computer for bookkeeping, data storage and video editing since 1996. It had joined the UN's campaign for promoting the use of IT in

¹ *Bannok* is a colloquial word for rural in Thai.

Operation and Management of Bannok.com Computer Centre

Services for In-house Projects and Staff

The role of IT team at the Computer Centre was to support and encourage all the projects and staff to make use of ICTs through various services it provided, as stated below.

- The Computer Centre provided Internet connection and Intranet service to all staff and projects. Every computer was connected to a LAN system and all the staff could share their files and data. It was attempting to use Linux for its server. The team had involved a grade-11 student who had expertise in programming and server to help with this task.
- Hardware and software services included providing maintenance and writing compact (user-friendly and ready-to-use) templates and applications for the Group and projects. The IT team maintained the proper function of the whole network both Internet and Intranet. Aside from the computers within the Centre, it also helped repaired and upgraded computers and programs scattered in the office of and owned by each project. The team created easy-to-use templates for such as outwards letter, daily activity report and web page updates. It planned to create accounting programs for the projects as well.
- IT staffs acted like helpdesk, providing advice to all users and projects when they experienced any difficulty in using either programs or computers.
- The Computer Centre staff helped create and update web sites for some projects.
- The Centre provided training to the staff. However, the training was usually not in the form of courses, but rather based on problems and individual needs. Project staffs who had high level of IT skills did not necessarily use this service. Often, project leaders and staff would transfer the knowledge and skills within their responsible projects.
- Ten computer terminals were available for all members to use. The Computer Centre was opened seven days a week from 8am until midnight.

“The past two weeks, I learn about computer, edit picture ... I asked as well, how to reduce photo size, pull pictures from others' computer, connect network... Using digital camera, in the past I never got a [chance to] touch....”

(Intern, individual interview, 18 September 2003)

In assessing the provision, use and satisfaction on ICT services through focus group activities, most project team leaders rated maintenance and consultant services at the highest score, but rated training and skills enhancement at the lower end. The IT team rated itself the highest for most services in terms of provision, except training and skills enhancement and encouraging projects to use ICTs at the middle and upper range respectively. In terms of satisfaction, it self-assessed its own performance more or less similar to others. Two extreme ratings at the lowest end appeared in the equipment maintenance and advice on upgrading services because the level of IT skills among projects varied and the staff within a couple of the projects had obtained skills and proficiencies in dealing with these issues themselves. The low rating for skills training and support was because the IT team employed a more passive rather than proactive approach for this service and possibly as a result, the demand and niche for this particular service was not fulfilled.

Services Provided to Outsiders

The Computer Centre had provided services and consultation to external individuals, groups, local and public organizations and other NGOs either for free or by charging a fee depending on types of work, organizations and circumstances. Some examples are provided below.

- Having experience in creating easy-to-use templates and applications for its own organization's administrative tasks, it occasionally provided advice and helped create templates for other organizations. It was planning to put some of the programs into packages and sell them to other organizations that might have similar administrative needs.

- Access to computer stations at the Computer Centre was free for the local youth to use for research or other document-related tasks on weekends. Some young people from a village close-by (<1km. away) came to use the computer and Internet.
- The Computer Centre designed and maintained web sites for other organizations. The service charge varied from Bht 60,000 to 200,000 depending on the scale of the job. For example, Thailand Research Fund (TRF), an independent government-funded organization, paid the Computer Centre to help maintain and update its web site.
- At the beginning, the Computer Centre provided computer and Internet training to the youth from different hill tribe communities, and students and teachers in the area. However, because students and teachers were not target clients of the Centre since they had access to the equipment and facility at the schools. The Computer Centre consulted with the schools and came to a shared understanding that for basic computer skills the schools should provide training while the Computer Centre would help out with more advanced or sophisticated programs if those exceeded the capacity of schools.
- The Computer Centre also leased its server space to other organizations by charging its clients 1,500 baht (USD 37.5) per month. The Centre paid 6,000 baht (USD 150) per month for the server space.

Financial and Staff Management

The Computer Centre generated income mostly from services provided to individuals and parties outside the organization. Web design and web maintenance was one of the major income generators. It had also helped implement an IT-for-public-health-fund project funded by [Thai Health Promotion Foundation](#).

The major expenses of the Computer Centre were Internet network, basic infrastructure and staff salary. The organization had tried to implement some accounting tools to show the financial flows of each development team, but it had not calculated everything into an exact amount. The service charge for Internet connection was an example. All the project teams made a rough estimation on the amount of Internet and data transfer each used and contributed a portion of the connection cost according to the estimate.

On the other hand, the measurement of basic infrastructure cost, which was generally from electricity and telephone, was more precise. A meter for electrical power had been installed. For telephone, each team had to pre-dial its own password when making an outward call; all calls made were automatically recorded into a computer system. As a result, the central management team could identify and bill each team correctly. The Computer Centre usually used the telephone for coordinating activities and obtained help and advice when experiencing technical difficulties, especially when the satellite signal was repeatedly down or off.

At the time of field study, the IT team was comprised of an IT team leader and three full-time long-term volunteers. All of them were young, under 30 years old. Following the organization's arrangement on working hours, they worked six days per week and Sunday was usually flexible that they might choose to catch up with tasks that they could not accomplish during the week. They normally started working at around 9am and the finishing hour would depend on the demand and urgency of daily situation. The team members were usually self-directed and identified their own tasks based on needs and priorities.

Normally, the monthly salary for permanent staff was around Bht 10,000 (USD 250) and Bht 3,000 (USD 77) honorarium for long-term volunteers, but this could vary. The Computer Centre also paid for the cost of room and board (approximately Bht 600 per person per month) for the long-term volunteers. The team also obtained an 11th grader consultant from another district to

work on programming tasks for its server and he usually came on weekends. Occasionally, the team obtained short-term volunteers or interns to assist with some of its work.

Technical Issues

The availability of software and hardware equipment within the different organizational units was dependent upon the needs of the unit. Each unit usually managed and took care of its own equipment with support provided by the Computer Centre staff. Generally, the equipment functioned properly except some older hardware that required more maintenance. In addition to the computer and Internet, the organization had also made use of other related ICT tools such as digital camera, digital video recorder, scanner, projector and so on. A portion of the equipment did not belong to any particular project teams, but instead was managed by the administrative team as organization-wide resources.

During the field study, it was observed that the most common problem faced by the Computer Centre and the larger organization was the instability of Internet connection. Because it was during raining season, storms had displaced the proper angle of the satellite dish in receiving signals and had left it out of service for almost a week. The disconnection had disrupted many projects, as they heavily relied on the Internet and Intranet in coordinating and performing tasks. A few people mentioned that they had nothing to do or could not do their work since the Internet was disconnected. Later, the staff of satellite rental company found that the dish was too old and replaced it with a new dish; however, the Internet signal still fluctuated often.

At the time of research, the Computer Centre also encountered a server crash, resulting in loss of information and data. Because the Centre mostly backed up and stored files on the server and had no places or back-up formats, it tried to rescue as much data as possible and had to recreate many files. Consequently, many components and services on the web site including some services within its LAN system were unavailable for both the members and the public for a period of time.

ICTs and Development Activities at Bannok.com

Organization-wide ICT Applications

The use of computer and Internet within Bannok.com had gone beyond the need to communicate with the outside world and had become part of the organizational culture since daily use of the network was obligatory. All members, both staff and volunteers, had to report what they had done for the day in order to help everyone know and understand each other's work and to avoid overlap and repetition. The report was informal and was done on a template on the Intranet; also, digital pictures were encouraged since they could tell more than words. Daily reporting became a routine task and was compulsory, and whoever missed to report would get fined.

In addition, they used chat and email programs such as ICQ and MSN and web board to communicate, coordinate, assign and submit tasks, exchange ideas and discuss issues throughout the day. A volunteer said she would sometimes access the network in the morning and check if any tasks had been assigned to her. Without replacing face-to-face and personal interaction,² the online tools became particularly useful when some members worked in distance, traveled, required quiet and private working environment, and preferred anonymity.

All the projects of Bannok.com had made use of the technologies in different ways and for different purposes. The following shows how some of the development projects made use of ICTs for their work.

² There were various activities within the organization to promote interactive learning and personal relationship among members and an all-member meeting was called for almost every morning except Sunday.

To Be Thai

To Be Thai is the second phase (since 2003) of a previous project that helped hill tribe children who were born in Thailand to obtain legal documents, rights and status in Thailand, as well as legal documents for their families depending on cases. The focus of second phase was on protecting cultural rights and Thai citizenship of hill tribe children. The project was first established after the Group staff found that many hill tribe children and adults who were born or had their origin in Thailand did not have any legal citizenship status and documents. This was because of the pastoral practice of many tribal groups in the old day and that led to having no permanent settlement and officially registered household document, on the one hand. On the other hand, many of tribal communities lived in remote areas up in the mountain and they did not see the importance of having any legal or proper document and neglected to report and acquire birth certificate. Consequently, the lack of legal document resulted in disadvantages in many aspects such as the lack of opportunities in education, land ownership, employment, etc.

The project mandate was to act as a consultant and coordinator in helping the communities address this problem. The project team mentioned that they used chat and email to communicate with other activists or like-minded organizations and to seek advice. They concurred that web board was a particular useful tool in posting issues for discussion, seeking supports online and drawing attention and accelerating responses and actions from the related government departments. The team updated the web site of To Be Thai frequently and whenever new and unjust issues occurred. The team leader mentioned that they received responses not just from activists in the field, but also academics, officials, publics and members of hill tribe minorities. Because the content on the web site was widely accessible and available to the public, the web site became a tool that pressured and pushed the officials to take actions as they cared about their image and reputation.

In addition, it was mentioned that when dealt with difficult cases that they did not know how to proceed and never experienced before such as problematic documents, the team leader said they could scanned and email the document or even put it onto the web board and ask for advice. In some cases, consulting over the phone was more difficult because some detail elements in the document were hard to explain. Through the Internet, they obtained quick feedback and advice from different sources. Interestingly, the team also commented that without the Internet many hill tribe communities could still obtain news very quickly and they could consolidate and coordinate among themselves well throughout the region; partly they had their own radio channel that broadcast programs in different hill tribe dialects.

The team promoted its web site through its network, seminar, workshop and press. It planned to launch a petition on the web site for the further amendment of immigration and citizenship laws, which at the moment barred Thai-born children whose parents illegally entered the country from being considered as Thai citizen and thus did not have any legal rights in Thailand. The web site was also a channel for the dissemination of research, information, data and real life stories related to this issue. It aimed to use variety of cases from different sources and organizations to create consolidation and to achieve its goal.

COMPUTERIZED APPLICATION A SHOWCASE

“We brought our computers and set them up at the District Office. We created a template of the application form and showed the officials how to use the computer to help with filling out citizenship applications for two months.... After the officials saw that, they started to accept and use the computer and template created because it was clear, accurate and could be stored as database. Later, they left a hardcopy of [citizenship] application form with us, so we can fill it out for people and they submit it themselves. Our assistance also resulted in the District Office changing and performing tasks in the new system faster....”

Hilltribe.org

Hilltribe.org was a virtual hill tribe museum project aimed to preserve local hill tribe traditions and cultures. It collected information on stories, rituals, artefacts, and ways of life in diverse themes through interviewing the elders and observing activities. The team recorded and stored the information in electronic formats by using IT and multimedia technology such as computer, digital camera and video. The plan was to make the information available online in both English and Thai. It was a two-year project started in January 2003. The Rockefeller Foundation provided a 4-million-baht (~USD100,000) grant to the project. Its target groups were international audience, general Thai and local young people.



The team leader shared his observation that most tribal village were interested in and watched VCD of tribal music produced in China almost every day. The scenes on these music videos showed tribal traditions and cultures and sang in tribal languages which Thai tribal people understood. “If there were media and content that related to them, they would choose to watch first.” He also pointed out that in order to preserve local culture, it was essential to use the right media, local content and local-related superstars. In addition, the mainstream media often presented false information about hill tribes and consequently created stereotypes and misconceptions. Many tribal young people also perceived the computer and Internet as modern

and cool. Therefore, the team was confident that if they created the online content in the multimedia format, the local people and the young might be interested in viewing and might preserve the good values and traditions they had.

The project team was comprised of a long-term volunteer originally from the US and three local volunteers from two hill tribe communities, one from Akha tribe and two from Lahu tribe. The youth volunteers and team leader together designed and planned for the themes or topics they wanted to collect. All the volunteers had obtained at least basic level of computer, Internet and other ICT skills. They typed and saved information and stories on the computer. They also searched for information relating to tribal cultures and stories online. “Mostly use google.com, search for tribal information, search from data collected by the Centre [Bannok.com] staff in the server as well. Key words used are such as Akha, Lisu, Yao,” said one of the volunteers. The volunteers mentioned that they found a fair amount of information in Thai. A couple of them had also obtained video production training provided by Bannok.com before. Since most community members were not fluent in Thai, the information collection tasks were the main responsibility of the local volunteers.

Although the team normally worked during the day, they also collected information spontaneously whenever they heard or spotted something interesting and this could include local music and song played among the elderly, stories told through daily conversation, etc. The volunteers were provided with a digital camera and had it with them all the time. For predictable scheduled or planned events, they would make arrangement with the villagers and would obtain a video camera from the office. They divided content collection into themes, e.g.,

belief and religion, life style, handicraft, agriculture, tradition, music, festival and ritual, etc. They had collected pictures and stories of various annual events such as festivals and ceremonies, and from daily life such as healing ritual, funeral, wedding, how to name a newly born, different dressing styles of clans by age and gender, daily use tools, and agricultural and hunting practices. The volunteers accepted that in the past they were never interested in the local values and traditions until working for the Hilltribe.org.

The team faced various problems. First, there was enormous and diverse amount of information in the field and this was challenging because the team had to verify all the detail information with the elders whether it was locally related. Second, the project faced manpower constraint in data collection. Often, local villagers who were knowledgeable in indigenous practices were limited and were not fluent in Thai. It was difficult for the project to find qualified individuals to help collect information from the knowledgeable ones because they were busy trying to maintain their livelihoods.

This project could be considered as an attempt to create local content and database by and for the local community. It had built planning and management capacities and had created certain IT awareness and skillful manpower within local communities. As the volunteers mentioned, the villagers at first were very interested and curious about how the technology worked and how the youth used it; “when I took pictures by using [digital] camera and video, they asked me, I showed them the picture I took. Then they said ‘Oh it is like this. Good.’ Some said it was good that we did this and helped preserve the culture.” The project also helped support other development activities of the Group such as e-Bannok Shop and Hill Tribe Eco-tour. However, the sustainability of the project would depend on the team’s capacity managing the project and seeking additional funding after the first two years, as well as the benefit perceived by local villagers.

e-Bannok Shop

Started in 2000, e-Bannok was a shop selling local handicrafts, mostly made by women in the community. The project was initiated with an intention to use business to help provide and improve income and occupation opportunities of local women. It traded hand-made products such as pillowcases, clothes, bags, bracelets, clay whistles and hand-made fabric. The project leader noted that they used to purchase all the products made by the villagers and that led to over-stocking, thus threatening its own self-sufficiency. As a result, the project became more selective and employed more of a business rather than charity strategy.

DIVISION OF LABOUR AND TRADING AND LANGUAGE SKILLS

In Akha tribe, traditionally men performed more dangerous roles such as protectors, hunters and traders. This usually required strength for travelling long distance to different places. Women were obligated to perform domestic tasks such as growing crops, collecting food in the wild, doing house chores, and rearing the young. Consequently, Akha men were mostly the ones who obtained language skills other than their own dialect and similarly this also applied to trading skills. However, some Akha communities had been living in remote mountainous areas and had a more self-sufficient life style within its boundary. Once they moved down to live closer to cities. Agricultural land was scarcer. Trading their handicrafts was one option. But doing business in the lowland area could be an alien experience that required new skills, perspectives and strategies.

The project changed its approach and shifted roles from being the buyers and became more of a product distributor and market mediator. So the Shop bought and stocked smaller amount of products. Some local women left their products at the project’s showroom and asked the staff to help sell the products. The staff would inform them once the items were sold; however, since the market was competitive, some women had to wait for a long period of time before they could have their products sold. The result was many villagers withdrew from participating in the Shop’s activities, from 50-60 villagers only 20 or so continued to make handicrafts.

Nonetheless, many villagers had changed their production strategy: producing to meet demands by order. The Shop tried to arrange for its customers and the villagers to meet and negotiate with each other directly. In this way, the villagers would not highly rely on the project and it hoped to help them learn more about marketing and business strategies.

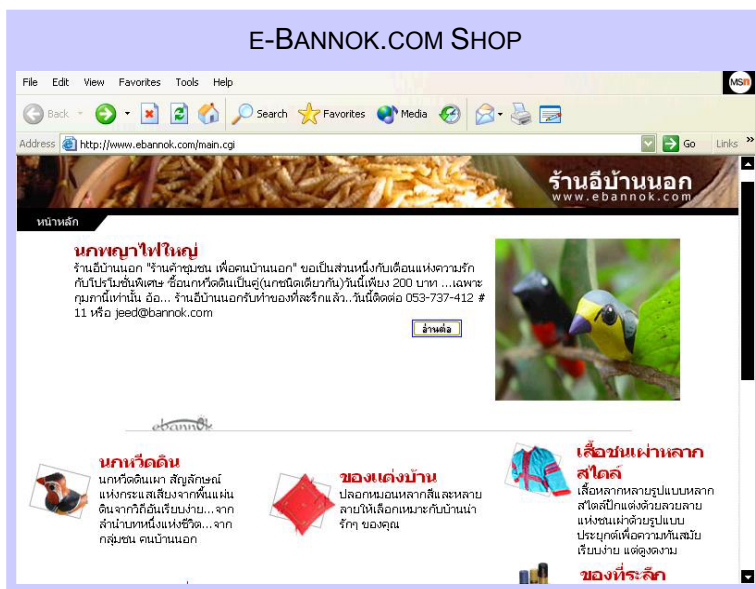
The project realized that increasing the capacity, knowledge and skills of villagers for them to be able to manage and administer their own business was a continuous and long-term process. The product that brought revenue into the business was whistle that was not the tribes' traditional handicrafts. The tribal product faced high competition in the market in terms of quality and diversity. The project staff mentioned that often the good image of the organization as an NGO was the selling point of the products not much of the products themselves. The staff had taken some villagers for field trips to different places in order to help them learn some marketing techniques and entrepreneur skills from others that were already in the business. Through these activities, the villagers got a chance to make a comparison on price and quality of products. The project team leader recalled that some villagers saw the difference on the marketing strategy, but some did not. After the field trip, many villagers accepted that products of some other tribal groups had better quality that made them more competitive. The project aimed to develop villagers' capacity on colour selection, style and marketing; all of those were problems in production and sale.

The project had a plan to provide training on hands-on sewing skills to some villagers in order for them to be able to produce value-added products. The Shop intended on sending some interested villagers to take pattern-making courses, but the prerequisite for pattern making was basic literacy. Consequently, many interested villagers were barred from participating in the course. In addition, the production had to coordinate with the life style and agricultural season of villagers. They worked on handicrafts only when they were available from the field and this

usually coincided with time that the market had high demand for the products.

As it experienced marketing problem, the project had tried different options including selling the products on the Internet by creating a web site (www.ebannok.com) to advertise, provide information about the products by using story telling and take orders online. However, it did not established any system that allowed the purchase to be completed through credit card service and hence, the project did not yet fully engage in e-commerce. It used the Internet more as a tool to communicate with its network and customers. When an order was placed online, the

information would be sent to the staff. The staff then emailed the client to confirm the purchase and ask the client to pay through banks or post services. After the order was confirmed or payment was approved, the goods would be delivered to the client via mail. The project leader mentioned that she had explained to villagers on how the Shop sold products via the Internet but they did not truly understand how the system worked since most villagers did not have any IT background. A long-term local volunteer mentioned that she got some computer training and



used to confirm the purchases with online clients a couple times when the team leader was not available.

Nevertheless, the Shop generated most of its income (95%) mostly from participating in trade shows, in-store face-to-face sale, and its network. In addition to the lack of a credit card system, many of its products (clothes, etc) were usually goods that people wanted to try-on and touch before buying and many product pictures posted online could not present the fine details of the craftsmanship. Consequently, it was not very convincing to purchase online. The majority of online clients were those who used to visit the organization and see the products. Moreover, the staff accepted that because in the past it got some funding from outside and as a result, it was not very proactive in terms of marketing.

Hill Tribe Eco-tour

Eco-tour project focused on bringing income into some hill tribe villages that still maintained their traditional life styles and had resources that were suitable for eco-tourism. The Eco-tour was a for-profit project and was started in 2002. The idea of having tourist activities in communities was proposed by villagers. The Mirror Art Group used to support various projects to help improve the income level of villagers and economy of communities. However, many of those projects were not very successful because they did not suit the local contexts and cultures very well, and there were problems related to the high competition and the lack of market. Through discussion, villagers mentioned that foreigners and tourists came to visit them in the village, but villagers did not gain any benefit or make use of the opportunity although few of them sold some hand-made items occasionally. In addition, one village had already opened their houses as home-stay accommodations, but the business was controlled by private tour agencies. Only a small portion of households were involved in this business and were generally paid very low accommodation price. The project saw this as an opportunity for the community and started working with four hill tribe communities.

WHAT WERE COMMUNITIES WORTH IN TOURIST BUSINESS?

	<u>Eco-tour</u>	<u>Tour Agencies</u>
Home-stay per night	Bht 50	Bht ~20
Food (per meal)	Bht 15-20	N/A*
Village guide per day	Bht 150	None
Instructor per day	Bht 150	None
Host Rotation	Yes	No

*Often, the price for meals were given at a low price or were included in the accommodation and tour guides bought fresh produces from outside the community and asked village hosts to cook for guests.

At first, the Eco-tour project provided training on how to provide home-stay services and on hiking and trekking tour guide techniques for the participating villagers. Members of the Eco-tour program were households without drugs and were volunteering to join. The project had convinced some knowledgeable villagers to provide some courses, which were related to their indigenous knowledge and skills, to tourists; hand weaving was one such initiative. Through instructing the tourist in the course, the local instructor who were usually women gained a sense of pride in their knowledge and wisdom they had and the course also raise the interest and awareness of the local young on the value of tribal art and culture.

The project staff and villagers discussed and set up service charges for such as accommodation, meal, tour guide, weaving equipment, instructor, and others. In terms of board and room, it was agreed that the home-stay hosts would also provide local food. Two villages had created their own rules and systems in taking turns accommodating tourists, in order to help distribute income within the village more evenly. The project team proposed to the villagers to contribute five percent of their earnings from eco-tourism towards their village development funds.

The Eco-tour used the Internet to promote its travel programs and to communicate with its clients. The staff updated information on its web site often. Besides the web site, it also

advertised its travel programs through other channels such as magazines and word-of-mouth. Since its client were not local people within the province but from other provinces and mainly from overseas, email was a vital communication tool for the project in reducing coordinating cost. Some foreigners contacted the project to help organize some community development activities for them while at the same time they could learn about the local culture. For example, a group of university students specialized in optometry from Singapore came and helped providing eye glasses. The project also provided services to meet niches of individuals as well. For example, the staff organized a field research program for researchers. Eco-tour was considered to be one of the projects that used up the amount of data-transfer the most.

Nonetheless, it could not provide reservation service online due to some restriction on the category of tour companies that it registered; otherwise, it would have to pay much higher operating cost. The staff noted that because they were still new in that market, they tried to keep the price low in order to be more competitive and to test the market. Around 70% of the revenue obtained went to the villagers involved and the project used the remaining 30% to pay for its overhead. The revenue it generated fluctuated from month to month. The project leader mentioned that if it could generate annual revenue at one million baht or so, then the Eco-tour project could survive.

Volunteer and Resource-Raising

The Volunteer and Fundraising project was a mechanism that the Group used to draw both human and financial resources from the cities and overseas to its development activities and the rural areas. Its focus was also to raise awareness on rural issues. Initiatives within the project area were Rural Teacher, Second-Hand Clothing Fund, Internship, Long-term Volunteer with expertise, and Educational Fund for Hill Tribe Children. Every month, it recruited a group of 20-30 people as rural teachers. The Rural Teacher program was the initiative that helped the Group get to know the communities and their problems and led to the inception of many other development projects. The volunteer teacher also collected data of communities and explored problems faced by communities for project planning, besides teaching basic literacy to villagers and children. The Group considered the volunteer teachers as one of the most important groups of individual for it in carrying out development activities.

The second-hand clothing initiative received clothing donations and sold the clothes at very reasonable prices to villagers instead of giving out for free in order to make villagers appreciate their value. The revenue from selling the clothes was put into funds for senior villagers and people with disability and for supporting village activities such as sport fairs, etc. In order to help many village children continue their education at the secondary level, the Group initiated an educational fund project. The project normally asked parents to try to contribute around one-half of the educational expense for their children and the project would

HOW THEY FOUND OUT AND WHAT THEY SAID?

How did interns or volunteers find out about the Bannok.com and how did they feel after joining it?

"I would like to work in the field of NGO, didn't know where to go. I tried to open web... click search.... I've got life experience. After came here, I feel lots of people, a lot of work... they give importance to the computer and communication.... I haven't got what I expect. The project is like a company. I don't have the courage to express my opinion yet because I feel I'm small. If work in a company, I don't think it's different.... I'd like to expand my world view and see people's lives."

"I choose here [for internship] because I learned about it from the web. I found it 2 years ago, saw internship, then I've continually followed [its news]. My friend recommended me about the web. ... Expectation, don't have any, I come to get some experience, I think I got a lot... Things that I can apply to use: brainstorm, build relationship, work on the ground with community, get to know community problems before create any project, involve local people, administer and manage budget put into communities, and monitor funding used.... I don't know because I got a lot already, would like to get why every village provide cooperation.... Would like to know how they do it, create trust and buy-in."

support the rest. Therefore, the villagers would not be completely dependent on others.

The organization also provided internship opportunity for students interested in gaining some practical and real life experiences. Many interns were students at universities or colleges who were required to obtain hands-on training as a part of their course or program requirement. These students usually came in during school breaks. The project also accepted long-term volunteers at the length of three, six, nine and 12 months. The recruitment was selective in order to make sure that the volunteer could actually live and work under harsh conditions and could contribute to the development activities of the Group.

The project used the computer to archive the database of each group of volunteer teacher and used the Internet as a tool to promote its activities, advertise volunteer recruitment, facilitate discussion on rural affairs through web board, and maintain its relationship and network with former volunteers.

Bannok TV

Bannok TV was a pilot project intended to help the local community create and produce community TV programs. In 2001, the project submitted a proposal to a World Bank funded ICT project competition and won a grant. It purchased some equipment such as digital video cameras and signal sender and receiver for short distance, and used the grant to pay for staff salaries and per diem and other overhead costs. At first, the team provided training on how to use the equipment such as digital video camera and computer and on how to create or convey a story and how to write script to the village youth and interested young adults in four villages. Once the youth had enough skills and confidence, they started to produce TV programs.

For reasons of practicality, it chose the closest village, about one kilometer away, to be the pilot site. The young people in other villages would occasionally come to borrow the equipment to record interesting events or festivals taking place in their villages. After some discussion and meetings between the team and the villagers, they agreed to broadcast the program at 7.30pm for half an hour everyday, Monday to Saturday. Programs were in either Thai or local dialect. Programs related to official matter such as laws and regulations were in Thai and programs related to local cultures and stories would be in local dialect. The youth filmed and created stories and the project team helped edit on the computer. The TV signal was sent out from the office of the project with simple and inexpensive equipment, which had radial limit at one kilometer, to a signal repeater at the village leader's house. Then the repeater would broadcast the program within the village.

The project team had continually adjusted the production to suit the locals and its own conditions. The program was replayed once to twice a week because the production was fairly labour and time intensive and because some villagers complained that they missed the program sometimes due to busy engagements. Nonetheless, most villagers did not like to watch repeated programs except ones that related to them such as stories about other tribal communities and tribal cultures. Also, the local volunteers from the village had to work to make a living and would not be able to put much time into the production. The project had experimented with hiring full-time staff but that was still time consuming and also increased the cost. Later, the project tried to produce more live-broadcast programs hosting within the village in order to reduce the amount of post-production work. Many children who never had a chance to be involved in the production process were excited in witnessing the live production and broadcast. The TV program had been well accepted throughout the pilot phase.

However, after one year of operation, the project team had taken a break. This was partly because the team realized that it had too much influence on the design and planning of what and how the programs should be, and also because the funding for the pilot project had ended. The lessons learned from the pilot phase were that the villagers were interested in viewing the

programs but the feeling of involvement and ownership was not there, and that the villagers had to worry about their livelihood first. In addition, when the team assessed the needs of content and program format of the community, villagers barely provide any opinions or suggestions, and when asked whether the program format the team suggested was satisfactory they said all was good. The staff considered the aforementioned problems as the reflection of its working process and strategy. The team took this opportunity to let the villagers decide how they want to manage the TV channel. One major barrier for villagers to produce their own TV programs was that there needed to have a dedicated team continuing to carry out the production, but villagers were busy and struggling to make a living. Once the villagers were ready to continue, the team would act more like a mentor rather than a manager of the TV program.

Local Community and Information and Communication Needs

Local Communities

During field study, three communities (Lee-Pha, Ja-Lae, and A-Pha) were visited and one of them, Lee-Pha, was studied more in-depth. Lee-Pha and A-Pha were Akha and Ja-Lae was Lahu. A-Pha and Ja-Lae were still located in the highland area although they had moved from more remote areas to the current location years ago. The villager mainly relied on subsistent farming and daily labour job, as well as small amount of tourist activities. Lee-Pha was located less than one kilometer from the office of the Mirror Art Group. The community members had gradually moved from the mountainous area to lowland area since 1996 because the mountainous area had been regulated into a conservation area and also because the community wanted to be closer to services and facilities in the city and schools for their children. Since the lowland area to where they relocated had been occupied and farmed for decades by lowland villagers, the Lee-Pha members could hardly obtain a new piece of farmland. Consequently, most villagers (80%) had to work as daily labourers or to find other means to make a living. In all the three communities, a large portion of villagers could understand Thai but were not fluent in spoken. Thus they had difficulty to communicate with lowlanders and officials, except young people who mostly went to schools and some adult men who worked in the city and could speak northern Thai. Most villagers saw the importance of education and sending their children to school although funding was the number one constraint.

Through group discussions and interviews in Lee-Pha community, problems and needs mentioned and agreed by many villagers of each specific gender were as follows:

Male villagers

- The need to separate from the existing village and to establish as an officially independent village in order to be able to apply and obtain funding from the government for necessary development projects of the community;
 - The lack of farmland and investment capital, leading to insufficient income and poverty; and
 - The lack of a public common space within the community.
-

Female villagers

- The lack of land for agriculture;
 - Unemployment and the lack of income because
 - could not sell handicrafts and could not find the market for the products;
 - never went outside the community to sell the products and also did not know how; and
 - could not speak Thai; and
 - Having too many children, but they could solved this problem by themselves.
-

Interestingly, the issue on obtaining Thai citizenship was mentioned by some but not a priority of the community and this could be because the majority already had some legal documents and were in the process of obtaining the citizenship. The most severe problem cited by the villagers was indeed the lack of available agricultural land. The village men mentioned that the Forestry

Department was having a project that provided some farmland for relocating hill tribe communities. But they did not know whether they would be allocated land. The women mentioned that they would like to have access to land for growing crops and so they could earn some money to support their children in schooling. But they had never contacted any organizations or individuals because they did not know where to go and whom to ask. They said that the Forestry Department should have provided them with new pieces of land. Hence, when discussing about their information interests and needs, both genders mentioned about the need for information on the access to farmland either for rent, lease, sale or so on.

Information and Communication Patterns and Needs

In Ja-Lae and A-Pha villages, both landline home phones and public payphones were not available as the villages were more remote and up in the hill. Consequently, personal cell phones were an alternative that some villagers used for quick interactive communication. In Ja-Lae, only two people had a cell phone: one was a member of TAO (Tambon Administrative Office) and another had a family member working overseas. The number of people owning a wireless phone was greater in A-Pha village, around 10. Nonetheless, the phenomenon of cell phone ownership was quite similar to Ja-Lae; the owners tended to be people who had responsibility related to the local government or had relatives working elsewhere. However, “people who don’t have a cell phone borrow people who have one as well. Mostly it is more that people live outside calling back in. Call-in [inward call] is free. If call out [outward call] for long period of time, would give a fee at five baht per minute,” said a young villager.

For both of the communities, the closest private landline-phone service and public payphone was located in Huay-Mae-Sai, another village near-by. Similarly, villagers who had gone to work and live elsewhere were mostly the ones calling their relatives and friends in the villages rather than people residing in the villages making outward calls. The private phone service charged outward calls according to time and destination and charged 20 baht per service. The phone shop normally asked the inward caller to call back after 20 minutes and rode a motorcycle to get the intended villager to pick up the second call. Since more A-Pha villagers obtained a personal wireless phone, they had rarely used the private service, but many villagers in Ja-Lae still relied on the private phone service.

THE COMMUNITIES

Some facts about the communities and available infrastructure were shown in the table below.

	Lee-Pha	A-Pha	Ja-Lae
Geo-location	Lowland	Highland	Highland
No. Household	~100	~30	62
Faith	Christian	Tradition	Tradition
Tourism activity	No	Yes	Yes
Loudspeaker	Yes	Yes	Yes
Electricity	70% ⁺	Yes	No
Landline phone	No*	No	No
Public phone	1.5km	No	No
Wireless phone	Yes	Yes	Yes
TV (household)	55%	>80%	5-6
Radio	Yes	Yes	Yes

Note:

*The wire of landline home phone actually ran through the main street, but the villagers did not know how to obtain or apply for having phone connection in their houses.

⁺The rest of households were located further inside from the main road and moved to the current location after the electricity department set up the poles for the earlier re-settlers.

Radio and television were accessible in both villages, but at different level. Most villagers in Ja-Lae had access to 4-5 radio channels. As mentioned by a young man “like the lowland’s ones, listen to whichever that has music. [For] news, depends on channel. Listen to Tribal [hill tribe] Radio as well. In Ja-Lae, around 5-6 houses have a TV, other houses that don’t have any will go and watch at the houses that do.” As electricity was not available in Ja-Lae village yet, the TV owners normally used car batteries to run the appliance. The same villager expressed his concern that in the future when many houses had a TV, people would be addicted to watching it and might neglect each other and give lower priority to community affairs such as village work and meeting.

A-Pha villagers mostly listened to news and songs from Akha Radio, which broadcast programs in Akha dialect spoken by the villagers, in the morning and in the evening around 8pm. Unlike Ja-Lae, A-

Pha community had access to electricity. Watching television in the evening was very common. “Almost every house has one [TV], some houses have a VCD [video CD player], people are addicted to TV.... My grandma, over 80 now, after having dinner will go out to watch TV every night. We have one at home, but people like to watch TV together, have companies to watch...” said a young villager.

Besides news and entertainment, the villagers were interested in market prices of farm produces. Villagers normally received the information on prices from middlemen, who came into the villages to buy produces. Villagers did not know where to check the price. Occasionally, villagers exchanged information on produce prices with their friends who resided in other places when they came for a visit or when both sides ran into each other. A local volunteer commented that when agricultural information and produce prices were broadcast through radio, the terms used were often official and technical or written language that local people hardly understood. He gave an example of the word ‘percent’ and any information given in percentage. This problem was also related to the literacy level of villagers.

In the more in-depth study at Lee-Pha community, the most popular media were TV and radio. One part of the community did not have electricity and consequently, only one-half of households had TV access at home; nonetheless, people who did not have one watched TV at the neighbours’ houses sometimes. Interestingly, many female villagers mentioned that they would like to have a satellite dish for greater variety of TV channels. Younger generations also mentioned that they would like to have a community library with newspaper and magazine provided. A few female villagers accepted that they loved to read comic books. Radio broadcast in both Thai and hill tribe dialect was a medium accessed by most villagers.

A small number of young people mentioned that they also obtained news, entertainment and information through newspaper and the Internet. One admitted that he used the computer and Internet at the Bannok.com Computer Centre when he wanted to look for some information and when he did not have any hired job on weekends. Another said, “[I] search for information on recipes from the Internet. [I] don’t usually look for any specific ones. Any recipe that’s interesting or I like or I can make, I note it down.”

“My personal feeling about computer, so-so. If I left here, then I think I might not have any chances to use it. If there were, then I would use it. People in Ban Lee-Pha don’t know how to use it. Children who go to schools will know how to use computer.”

(Volunteer from the village, personal interview, 30 August 2003)

In terms of communication, due to its reasonable cost, letter mail was used by a number of Lee-Pha women to keep in touch with friends and relatives. Few people owned a cell phone because it was relatively expensive. Occasionally, people without a cell phone would borrow from the ones who had. In deed, they expressed the need to install a public payphone in the community. A few explained that that could save around one hour, especially for people who did not have a motorcycle, in commuting back-and-forth to the existing public phone which was located more than one kilometer away.

“Phone, I use public booth in Moo 1 [village], if it is not good, then [go to] Tung Luang [3km away]. If it [the one in Tung Luang] is not good, then [go to] the city, 3 baht a minute for cell phone [private service]. Call my husband around twice each month. More than 10 minutes, each time pay around 40-50 baht. Expensive? Don’t know, once a while, it’s affordable.... Mostly he calls.”

(Lee-Pha villager, personal conversation)

Even though the wire of landline phone ran through the main street of the community, they did not know how to apply for and where to apply for a telephone. The lack of information on sources for information and data appeared to be one of the most critical problems. This was probably part of the consequence that the Lee-Pha had not integrated fully into the lowland environment and had not had a clear understanding on how official and business system worked and where they could find out more information related.

It might be worthwhile to mention the power relation between the new and original settlements where the Lee-Pha resided. Both Lee-Pha community and the original lowland community of the area were under the care of the lowland-village chief. If the Lee-Pha community wanted to obtain a public payphone, the official chief could possibly help submit an application. The chief mentioned that he used to suggest to Lee-Pha community that they should have applied for a telephone but he said it was not necessary. Apparently, because Lee-Pha community moved into the village as a more-or-less self-governed entity that had its own rules and leader, the lowland village chief noticeably tried to keep distance from involving in or having any role in Lee-Pha's activities as much as possible except when necessary.

The information sought by the Lee-Pha was highly career and income generation related. The information most needed was about available agricultural land for rent. One villager mentioned that she did not get any advice and information on agriculture and wanted to know more on "how to make produces beautiful and safe, and natural agriculture practices." However, young people who were literate, could speak Thai fluently and had worked in cities for sometime were less interested in farming. A number of them looked for an alternative career. For example, a couple of male villagers looked for information on how to do business such as how to price, plan and invest. Additional skills that they were interested in were such as baking, sewing, and trading. A few of them also expressed that they wanted to know more about job opportunities and labour laws. Some of them obtained the cited information from books, magazines, radio, TV, friends and work. But some information was not available and illiteracy was a major barrier for many.

Strengths and Opportunities

Volunteer and Capacity Building

Through its volunteer programs, the Group had efficiently drawn manpower with diverse specialties from both within the country and overseas to help with various aspects of its rural development activities. At the same time, involving local young people to work as volunteers had built capacity within local communities and in return the local volunteers also helped carry out, coordinate and mediate development activities for the Group at community level. Other than learning through doing, some volunteers also had chances to learn from activities organized outside the organization. Some projects were very supportive of their members attending to workshops and seminars in order for them to learn new skills and knowledge and to broaden their visions.

However, there were occasions that once the skillful ones left it was hard to find a replacement. Bannok TV as an example, it faced the shortage of skillful human resource because the local community had limited skill in producing and designing TV programs. Although it used to provide training to some village youth and some volunteers had helped out in the past. But once the volunteers left and the village youth went into the city, the project faced the shortage of manpower and training new staff would take a long time. The organization might consider encouraging and supporting the practice of knowledge and information sharing among the local volunteers and between the volunteers and

THE GAINS

"At first, I was not sure if I could do it [the job]. When I've actually done it, it was not difficult. I'm continually learning. I take care of the store, check stock, do bookkeeping and make price labels."

A few local volunteers described things that they gained and learned from working at the Bannok.com were such as systematic thinking and planning, self-adjustment to the society, work strategy of NGO, team work, broader worldview, new technologies, self-realization on values of their own tribes.

A couple of them also gained self-confidence and trust of the communities to perform some village tasks, especially relating to official document and financial management. "People in the community wanted me to be the village chief... But I don't want to be because don't have experiences. So I told them that if they wanted me to help with anything, I would."

the rest of local community especially with young people. Therefore, when one left the community to find opportunities elsewhere, the skills and knowledge remained and others could easily fill the gap.

One volunteer mentioned that he liked to use PhotoShop and whenever anyone in the team learned something new that others did not know, they would share with each other.

ICT Reputation and Community Development

The early adoption of ICT use in assisting in Bannok.com's development activities provided opportunities for its IT team to continuously develop advanced ICT skills and specialty and also helped the organization gain a good reputation. Consequently, the IT team could easily market its services to outside organizations and individuals through its expanding networks and could generate income to sustain itself and its activities on ICT for development.

Supportive Relationship and Cooperative Network

Over the years, Bannok.com had continually created relationships and extended its networks in different sectors but mostly at the intra-sector level and with like-minded NGOs and grassroots groups. Effective networking and good reputation as cited above had benefited the organization in various ways such as:

- Obtaining grant funding and income from service provision;
- Seeking intellectual help and practical advice, as well as collaboration from like-minded players in the field; and
- Gaining trust and local cooperation from grassroots communities.

It might further build relationship and expand its network more towards inter-sectorial, regional and international realms for exchanging lessons learned and experiences. Bannok.com had a lot to share and also could learn from others who did the similar activities such as e-commerce, eco-tourism, and ICT for development in terms of technology alternatives and work strategies. For example, e-Bannok Shop might find an e-marketer project initiated by [FOOD](#) in India useful; might gain new ideas from learning how FOOD used the Internet to create young entrepreneurs and job for the local youth and to help local artisans sell their handicrafts at a better price. Bannok.com could possibly increase the practice of exchanging links with other organizations for marketing and public relations purposes.

Enthusiastic and Determined Staff

The staff and volunteers of Bannok.com were determined and enthusiastic to help improve the life of the local people in various aspects. The same level of enthusiasm to support and serve each other also existed among Bannok's projects such as the Computer Centre and the central management unit that tirelessly provided assistance and service to all other projects. Most of its projects cooperated with each other and a couple of them worked more closely and collaboratively due to the circumstance and nature of activities. Continuing to apply an integrative approach and mechanism in carrying out development activities among the projects could make projects enhance and complement each other's strengths and weaknesses.

Trust and Further Community Participation

Having worked closely with communities and having helped them solved their problems, Bannok.com had gained the trust and cooperation of local communities. Nonetheless, as the organization had shifted from charity towards entrepreneur (self-reliance) approach in helping and working with local communities, some misunderstanding on the organization's working strategy had occurred in a number of community members. It was vital for the projects and staff to frequently and continually listen, inform and consult with community members. Clear communication done at both organizational and personal levels would help reinforce a shared understanding and open space for local participation. To encourage participation at decision

making level, the projects might couple its communication strategy with local capacity building (skills on e.g., language, IT, information research, etc.) as explained next.

Self-sufficiency, Self-help

Other than transforming itself to become more self-sufficient as many of its projects had already done, Bannok.com tried to help local communities become more self-sustainable. However, many community members remained more passive rather than proactive. It tried to encourage greater local involvement and initiative. Providing useful information would help enhance communities and individuals to independently make decisions that suit their contexts and needs. Bannok.com might consider addressing the following issues:

- Individual voices

Often in a group meeting or conversation, many community members especially women were silent and few people would dominate the conversation. As expressed by one female villager in a gender specific meeting, “[We] never contact any department because don’t know where to go. Don’t know with whom to consult. Never had a chance to speak.” The phenomenon was also true even within gender specific group. Hence, opinions from leaders sometimes might not truly represent the majority and tended to ignore opinions of many. Gender and power-dominant sensitive approaches could provide a chance for more voice to be heard and might facilitate greater participation.
- Information needs for decision making and local content

Timely and accurate information could better help the locals make their own decisions that suited their existing circumstances. As many local people were not fluent in Thai and were not familiar with information sources, as well as the limitation of accessible information channels, Bannok.com might possibly fill the gap. Assessing local information needs and assisting them in finding the information needed could help local people find alternatives and become more independent in making choices.

Moreover, many people needed the information that was local in terms of both content and presentation. As the local content needed was generally unavailable in the mainstream media, creating local content for and/or by local people and presenting it in local dialects in a doable scale and format could possibly be an option.
- Information mediator

Providing information to the communities could be done through various ICT tools, as well as traditional media, depending on the circumstances of each community. Village loudspeakers, community leader’s walkie-talkies, villager’s wireless phones, Internet at the Computer Centre could all be the means in the process. Also, information mediator could play an important role in information diffusion to the locals and remote areas. In this case, it could be the young or local volunteers who were interested in doing so.

For example, The Eco-tour project and Hilltribe.org were planning to bring computers into an actual hill tribe museum in Ban Ja-Lae village in order to promote tourism and as a facility to help tell stories of local hill tribe community. There was also a plan to install solar cell panels and equipment for receiving satellite signal for Internet connection. The projects had trained 4-5 local young people to be acquainted with the technology and prepared them to help with the activities of the project. They could involve more community members and local volunteers who had obtained some IT skills to help research information for villagers and could utilize the technology to help the locals find the information they needed to improve their livelihood.

Lessons Learned

- As demonstrated by the case of Bannok.com, ICT was a supportive tool that could certainly help facilitate and accelerate the proceeding of activities in community development. However, to achieve positive development impacts, one had to incorporate many other non-technical, but critical social, economic and human, as well as political, components in the development process.
- This case shows that a charitable approach created dependency of local people on outside parties and destroyed local people's capacity to be innovative, and their opportunities to learn and to solve their own problems. Once people were used to being passive receivers, it was more difficult and took longer time to help them become more self-reliant.
- E-commerce was just one of many channels and marketing strategies that could help one sell tribal handicrafts. Financial, technical and skillful manpower could be barriers for small business to fully engage in e-business. Continuous public relations and proactive marketing strategy and action remained important, as well as continuous development of product quality, for the well being of small scale business in a competitive market.
- Demonstration was helpful to introduce and to create understanding of how the technology works. But in order for the locals to take ownership and utilize available ICT equipment, their early involvement in the planning and implementation process for short-term, medium-term and long-term projects and plans was vital. Also, building the local capacity and providing learning space was crucial. It would take time for the locals to become comfortable and confident with the technology before they could pick up the pace in utilizing it for their own benefit.

SPACE FOR (ADULT) LEARNERS

“The staff helped and taught me; I learned to type. It took me long time until [I'm] fluent. The staff encouraged me, said in the past s/he was like that too. [I] use computer for typing daily reports... I started to learn how to do accounting on the computer.”

“I used to go into web sites of magazines such as *Khwan Ruen*, to look for patterns for tailoring. I think I can do it if I got [chances] to practice.... The Shop sent me to learn patterning.... If assessing myself, I think I'm able to do 50%, not as fluent like a tailor.”