

SCHOOL NETWORK FOR HEALTH PROMOTION AND UPLAND AREA CONSERVATION IN LOWER KWAI YAI BASIN AND LUM TAPERN BASIN, KANCHANABURI PROVINCE¹

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Abstract: The purpose of this study was to design a model of educational reform that will increase the relevance of education to local area development by creating a local learning network with links to educational institutions. The study areas included 3 districts in 2 river basin areas: Srisawat in the Lower Kwai Yai Basin; and Nongprue and Bophloi in the Lum Tapern Basin, covering the areas of 13 Subdistrict Administrative Organizations and 3 Municipal Subdistrict Administrative Organizations. This action research study consisted of 6 kinds of network building: 1) building a school network experimenting on a learning unit for health promotion and upland area conservation, emphasizing study of the local situation; 2) building a network for developing a source of learning in the communities; 3) building a network for developing a local journal; 4) strengthening the role of Buddhist monks in promoting morality among the community sectors, especially the youth; 5) building a youth network for mutual development in order to produce future leaders; and 6) building a collaboration network between district administration organizations. The experimental learning unit network covered 58 schools by the end of the study period. The unit was utilized 200 times during the study period. One issue of the *Kwai Yai - Lum Tapern Journal* was produced annually for 2 years, featuring 16 research articles from the participating teachers. There are now 24 practitioner networks in the 3 districts, most of them connected at the district level. Each network has agreements on developing itself as a source of learning in the locality. Three training courses on moral development were organized for new generation leaders by Buddhist monks in each district. Youth network committees have been set up in 3 districts. There are agreements between the local administrative organizations, district-level government bodies, practitioner networks and educational institutions about setting up development committees in each community, focusing on issues at the sub-district level, such as future leader development and maintaining already established district-level relationships. It is recommended that research activities in the two river basin areas be continued, in order to build a model of education relevant for local development. Teacher development plans

should link with the development of local journals. Young leader development organizations should be set up. Monks' contribution on instilling morality in the communities should be supported. Coordination systems should be developed not only on the sub-district level but on the district and river basin levels as well; these should emphasize participation of practitioner networks.

Background of the study

This research project is a continuation of a project titled "Network of Academics for Health Promotion and Upland Area Conservation in the Lower Kwai Yai basin, Kanchanaburi Province," and a part of the same research program. The Network of Academics...was the first project in the program, and its role was to bring together academics in order to produce guidebooks for developing of learning units related to the identification of the community health and natural resources in the area. The outputs of the study were eleven learning unit development guidebooks. The first project was limited geographically to eight piloting schools in the study area of Srisawat district, Kanchanaburi province. The School Network..., on the other hand, was the second project in the research program. Its role has been to extend learning that takes place within the confines of the project to schools in both river basin areas, and to express the issues of health promotion and resource conservation into communities and amongst the various stakeholders in the area.

The coverage area of the study was extended to the Lum Tapern basin because it forms a continuous area with the existing study area. Lum Tapern or Huai Tapern is considered a branch of River Kwai Yai, joining River Kwai Yai in Lad Ya subdistrict, Mounng Kanchanaburi district. The river basin areas of Lower Kwai Yai and Lum Tapern are separated by a mountain ridge in the Salak Phra wildlife sanctuary and in the Chaloeem Rattanakosin National Park. Thus, it was necessary to get collaboration from civil society in both river basin areas in order to help conserve upland forest areas in the same mountain range.

The term School Network in this research is referred to the linkage between educational institutions with other parties whose role is health promotion and resource management in the area. The purposes of the study were to link development processes among various stakeholders with education, to enable education to affect local development, and to invite the various stakeholders to participate in processes of local knowledge management.

This research project aimed to changing of educational paradigm from progressivism to

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reconstructivism. The current educational system influenced by progressivism, this paradigm aimed at personal enhancement, with emphasis on the individual competency fulfillment. The society is viewed in terms of endless evolution for which no goals are set beforehand, in contrast, idealistic philosophies believe in ultimate goals. The role of education in the progressivist view is to stimulate, persuade and guide children to continually developing themselves in progressive way. Its aims at building a school culture that is set apart from the communities, turning schools into special institutions that are above the communities. In this education, children aim at personal development and leaving the locality in order to move to economic growth centers – in other words, the more education, the more individualism, and the less shared consciousness with the locality. Furthermore, in competition, there are not only winners but also many losers, and the latter may experience a reduction in their self-worth. The overall result of education under this paradigm therefore is that rural communities and their children lack power to develop themselves.

Reconstructivist education aims at changing the paradigm from individual development to development as a part of one's community. It implies utilizing knowledge for arranging local relations, and aims at children having a shared consciousness with their communities, and a creative role within them. This type of education has the following key characteristics: 1) it emphasizes learning that links with community concerns over learning from centrally produced educational materials; 2) it emphasizes managing learning together with local partners; 3) the local context, value of the locality, problems within the locality, and developing responsibility toward the locality are emphasized in the educational contents; and 4) it is learning that takes place all the time (not only time spent at school), so, the teacher will need to give importance to the link of children with learning resources in the community too.

Based on the perspectives outlined above, the researchers designed a study for developing the educational system in the spirit of reconstructivism by enhancing learning both in schools and communities with the topics of health promotion and natural resources conservation, and by attempting to develop learning about the local context; natural resources, human population, human use of resources and the value of cooperative management, which are aspects of wisdom regarding meaningful living in the localities concerned.

Objectives of the study

1. Supporting educational institutions in giving instruction on health promotion and natural resources conservation in their basin areas.

2. Building a network for learning resource development on the topics of health promotion and natural resources conservation in their basin areas.

3. Building a network for publishing a local journal in the Lower Kwai Yai and Lum Tapern basin areas.

4. Developing knowledge management systems on health and resource management in the Lower Kwai Yai basin and Lum Tapern basin, with participation from educational institutions.

5. Developing the collaborative partners on the concerns of health promotion and natural resources conservation in the basin areas.

Methodology

This study was an action research study covering three districts: Srisawat in the Lower Kwai Yai basin area; Nong Prue and Bophloi in the Lum Tapern basin area, covering the areas of 13 subdistrict administrative organizations and three municipal subdistricts, altogether 16 local administrative organizations.

The main activities in this research project were six types of network building:

1. Networks for experimenting with the use of learning units. The role of these networks was to provide instruction on the health and resources situation of the communities, utilizing the eleven learning unit development guidebooks created by an earlier study in the same research program. The process to set this networks included coordinating with the relevant Educational Service Offices Area and schools to invite participation, providing workshops for teachers who joined the project, providing financial support for the experimental use of the learning units, installing a program for managing data gained from surveys conducted according to the learning units, convening to monitor the results, and supporting the presentation of research studies by teachers who were a part of the project.

2. Networks for developing learning resources. These are networks of practitioners aiming to develop themselves as learning sources in each area. The processes to set these networks were as follow:

1) Coordinating the responsibilities of the project with relevant state bodies in order to establish practitioner networks through one provincial level meeting (covering all topics and both river basin areas) and specific meetings for each river basin area and topic (4 meetings per river basin area), and one natural conservation area network meeting covering both river basin areas, altogether totaling nine specific meetings.

2) Arranging stakeholder meetings to establish specific district-level network committees for each river basin area and topic (e.g., elderly people, food, or waste management). All of these meetings emphasized district-level network building, except two in Srisawat district that emphasized specific area level network building.

3) Supporting regular meetings of the district level networks in order to facilitate inter-area exchanging of views and learning, and to provide opportunities for network members to develop themselves as sources of learning in the zoning area.

3. Network for developing the Kwai Yai - Lum Tapern Journal. This was a network for publishing a local journal. The process to set this networks comprised of coordinating with the Educational Service Offices Area responsible for all of the three districts to select an editorial board, and supporting the board in producing two issues of the Kwai Yai - Lum Tapern Journal (500 copies each), distributing the journal, and monitoring and evaluating the results.

4. Networks of Buddhist monks. These are networks for instilling morality governance in the communities. The operations to set these networks include coordinating with Provincial Monk Dean of Kanchanaburi province to invite monks to join a seminar covering all the three district areas, arranging one planning meeting in each river basin area for providing training to the youth, and then supporting the fellowship in arranging one morality training course for youth in each district.

5. Youth networks. These are networks of young people interested in developing themselves into new generation local leaders. The research operated by first selecting young people (no more than 35 years old) for two training courses. The first one was a joint course for all the three districts and focused on the empowering the communities to develop and conserve river basin systems; the second one was arranged separately in each district, emphasized on morality for a new generation leader, and constructed by Buddhist monks. Support was also provided for establishing three district level youth network organizations, and for them to report on their districts situation on health and resources.

3.6 Networks of local administrative organizations. These are networks aimed at providing support for the operation of all the other networks. During the study period, they had been invited to joint meetings with all the other networks. The research arranged two seminars for them, the first one covering both river basin areas on the topic of the cooperative and integrated development plan in river basin areas, and the second one separating for each basin area on the specific topic that stated from the first seminar.

Results

The instruction of educational institutions on health promotion and natural resources conservation

1) Of the 60 educational institutions in the target area, 58 joined the project. Teachers used the eleven learning unit development guidebooks as experimental learning units altogether 200 times. The relative importance of the learning units as measured by frequency of usage by educational institutions was as follows:

- The units with very high importance were 1) organic farming and 2) food, life and health.
- The units with high importance were 3) mixed deciduous forest and bamboo forest, 4) integrated pest management, 5) forest

resources and wildlife conservation and 6) community waste management.

- The units with moderate importance were 7) soil resource conservation, 8) local tourism development, and 9) reducing the risk behavior of alcohol intake.
- The unit with low importance were 10) elderly health index, and 11) fishery resources and conservation.

2) Usage of the learning units (study plans) mostly took place in the integrative manner outlined in the guidebooks, but not including all the sub-units (subset of the learning unit). There were also the following kinds of usage: teaching all sub-units as an additional subject; adding contents to the subjects already in the syllabus; teaching during guidance classes, extraordinary time or the student club time; teaching as a part of pupil development activities. The class level of the experiment were coverage every level from the prathom 1 – mathayom 6, but at the early level had problem of difficulty of the contents, and cannot be used all sub-units.

3) For the pupils, use of the learning units resulted in an increased interest in local issues. The teachers, on the other hand, benefited by gaining a way to develop their instruction, to link with sources of learning in their area more than before, and to write research studies. However, the benefits of the communities that linked with educational institutions are not clearly evident yet.

4) Support systems within educational institutions that will enable the teachers to continually develop the learning units should be to integrate the learning unit as a part of the school curriculum and work as the whole-school project, and to support teachers to integrated learning units to their course syllabus. Beside that, they still need a support system from network partners in the communities for cooperative teaching.

The learning resource development

This research project resulted in the establishment of practitioner networks on eight topic areas. Each network set up committee on the district level (with the exception of community forest in Srisawat district and coastal zone networks in Srinakharindra dam reservoir, where committees were set at the specific area level). The purpose of the establishment of all these networks was to facilitate mutual learning and shared activities, as well as developing the learning or communicating station of the networks, in order to provide a way to improve management in each aspect. Each network has agreements on the development of communicating station within the network, and some networks already operate them, as follows:

1) Communication centers for the elderly in the community. These are operated by networks of the elderly in each district, in order to serve as sources of group-relevant information and as gathering places where activities for the elderly can be arranged.

2) Healthy food restaurants. These are operated by networks of food vendors in order to develop restaurant quality and to draw local attention to food-related concerns.

3) Recycling centers. These are operated by networks of recyclable waste buyers in Srisawat district and Nong Prue district. There are plans for collective waste collection within each network.

4) Learning stations for sustainable agriculture. These are operated by sustainable agriculture networks in each of the three districts, to provide places for mutual learning within the network by rotated meetings; each station will also produce organic decomposer and having experimental plots and collective data of the network members in their area.

5) The community forest learning centers. These are run by community forest networks in each districts or the inter-village network. The components of each learning center are being collaboratively designed and developed by each network.

6) Water systems learning centers. Networks for learning about water systems in Nong Prue and Bo Phloi districts have initial agreements that each subdistrict will be provided one to three learning centers, each of which will collect data on water sources and usage, and they will also have maps and persons who will study the topic to be able to explain the data based on the maps.

7) Fishery and tourism learning points in the Srinakharindra dam reservoir area. One learning point has been designated for both fishery and tourism in the Na Suan coastal zone by the Na Suan coastal zone network, but the components of the centers and their role in disseminating knowledge will need to be developed further. In the Tha Kradan coastal zone area, agreements on designating learning points have not been reached yet.

8) Community enterprise learning point. Operated by the community enterprise network for tourism promotion in Nong Prue and Bo Phloi districts, these networks welcome learning visits from educational institutions, but these enterprises still cannot function as community enterprise tourism organizers. They need to be developed a ground understanding and cooperative mind to perform a new movements.

The publishing of a local journal

This research project resulted in the publishing of a local academic journal. Two issues of the Kwai Yai – Lum Tapern Journal were produced. The first one was publishing in July 2008 collaborated with the Kanchanaburi Educational Service Offices Area 2 and 3. Due to educational area division was subsequently rearranged and the study area became a part of the Kanchanaburi Educational Service Offices Area 1 and 4, which meant that a new network for publishing the journal had to be built. So, the second one was publishing with core members from the Kanchanaburi Educational Service Offices Area 1, 2, and 4 in August 2009. Both issues were printed 500 copies and distributed in schools, temples, local administrative organizations, health care stations, and relevant state institutions in the study area; reader

evaluations were also collected. Contents are divided into 4 parts: 1) situation in the area, 2) articles, 3) local wisdom and sources of learning, 4) research studies and 5) book review (included as of issue 2).

The knowledge management within communities

At first, research project expected that the school will be function as local knowledge management units by which the school given the instruction that including local survey, data analysis, data explanation and then return information back to the communities. The project not only given the learning unit guidebooks to the school, but also installing a program for evaluating data gained from surveys conducted according to the learning units. But in action it didn't work as the expectation, due to the school not ready for conduct the survey in the community and didn't have the way to present the result of survey to the community. Therefore, the project shift the point and try to setting the knowledge management in the hand of practitioner networks by setting up the new questionnaires that more an easier and shorter than the questionnaires from the learning guidebooks. These questionnaires hope to be used to collect data for the communication station of the practitioner networks. If this happen the school can be used the collecting data for learning, no need to survey data directly from the household, so the school can save the learning time and can help the management of the data for the practitioner networks too.

The collaborative partner development

The results of operating with other community networks in collaborating in the health promotion and natural resources conservation, namely the youth networks, networks of Buddhist monks, and the networks of local administrative organizations were as follows:

1) Youth networks. Youth network committees were formed in each of the three districts. The purpose of these networks is to learn together with other networks and to communicate with their communities. The youth network in Bo Phloi district had produced documents introducing sources of learning on sustainable agriculture in the district. The youth network in Nong Prue district collected data for a report on the health and natural resource managing situations, however, the situation reports remain not completed. Youth in Srisawat district still lack collaborative strength due to the long distances in the area, and because almost all the youth who participated in training have to study or work outside of the area. In order to receive continuous support to the youth networks, the research project has proposed to the local administrative organizations to set up a subdistrict committee for developing new generation leaders and support them to work at district level too.

2) Network of Buddhist monks. Monks from all the three districts have participated in the project, whether in terms of joining seminars or some of the meetings of the networks. Monks have also provided one training course (2 days, 1 night) on morality development for new generation leaders. Monks have had a teaching role through providing sermons. District Monk Dean of Bo

Phloi district is also interested in developing a project on planting trees all along Huai Tapern. Deputy District Monk Dean of Nong Prue district has already established a temple radio station for communication development topics on radio programs in collaboration with other network partners.

3) Network of local administrative organizations. As a result of the two seminars, local administrative organizations in the Lum Tapern basin chose a joint issue of forest and water resource conservation, whereas those in the Lower Kwai Yai river basin chose the joint issue of waste management. In Lum Tapern Basin there had been an agreement to establish the Lum Tapern integrated development committees which were included head of the practitioner networks by which set up at district level first, and then selected 6 persons from each district to be in connected committee at the river basin level. Both have so far been unable to reach concrete plans or any action. The obstructions were the less participation of decision makers of the organization, the changing by the period of the selection and the lack of principle coordinator in the areas.

4) The coordinative bodies. Before the end of the project, the research project set up the agreements between many sectors to establish subdistrict developing committees (in each topic area) in order to coordinate and support the role of the practitioner networks. These committees at least comprise of the four sectors: local government, state bodies in the area, practitioners in each topic area, and educational institutions.

Continuing research program development

Since this research program did not gain the level of financial support that was originally intended, and because funding was not continued in the financial year 2009, the project had to be terminated in August 2009, despite that the resulting networks still did not have clear plans for continuing operations, and still needed support from state bodies. The researchers therefore coordinated between various partners in the area to develop research programs in both basin areas. In Lum Tapern basin, two program proposals had been set up and one can submitted to funding agency, the other cannot submit in time. In Lower Kwai Yai basin had no leader to carry on the research program. The two setting up research programs were as follows.

1) Immunity Cultivated to Local and Society by the "Reconstructivist" Education in School Programmed and New Local Leader Development Programmed in Tapern Basin, Kanchanaburi Province. This was joint program between Mahidol University and the Educational Area Office in Kanchanaburi's Educational Area 4. (This one can be submitted to funding agency.)

2) Governing by Networking to Strengthen Local Government and Integrated Development in Tapern Basin, Kanchanaburi Province. This was joint program between Nong Prue and Bo Phloi districts.

Discussion

Reconstructivist education has been influenced by anthropological perspectives that perceive the relationships between social institutions (homes, temples/churches, factories, banks, associations, schools, etc.) and how each of these institutions has responsibilities toward the attainment of social goals. Education must therefore be linked to these institutions in changing society. This type of education will push the school to participate in community development.

Experiences from the research program Education and Communities led by Dr. Amonwit Nakhonthap supported by the Thailand Research Fund show that obstacles in developing education for communities include the following: the school is bound by the regulations of the civil servant system, the directors' paradigm is not compatible with teaching for the benefit of the locality, teachers not being locals, teachers being transferred, teachers not fully understanding the main idea of the local syllabus, folk wisdom teachers is of advanced age and some is already employed full time, pupils lack the abilities and readiness to apply knowledge, pupils are more interested in having fun than learning, and pace of change in communities makes them lose their strength. This current project encountered similar obstacles. However, due to the broad coverage of this research project (both in terms of geographic area and topics covered) and due to its coordination with all the stakeholders in communities (e.g., local administrative organizations, state bodies in the area, community leaders, youth, Buddhist monks, and citizens that are practitioners in various fields), the current study gained an ever increasing acceptance and participation and can be further developed the continual research programs in collaborate with the local network and could be proposed to funding organizer.

This study implied that the reconstructive education has to be set up by collaborative action with social partners, as outlined below.

1. Developing the role of educational institutions to the community by developing of school curriculum linkage with the local issues. The issues concerning can be identified in an area based on having clear stakeholders. The development of learning units will emphasize learning that links with the stakeholders and gives importance to creative collaboration. This particular learning issue could be elevated into an area-wide concern in that all partners would have a role in addressing. However, during the period of experiment the learning units, the processes of establishing practitioner networks in the communities were in their early stages; and hence there was no true linkage between the two. Although by the end of the research project the practitioner networks were beginning to form various kinds of networks and each network was beginning to have their learning own stations, but this process was still at beginning stages and could not set the new improvement in the area. This, in turn, has led to a lack of learning resources that could experience the development methods in each area that pupils could

meaningfully learn from and participate in. This besides, after a single academic year of the operation of the research project for supporting the experimental use of learning units, no plans exist for their continuous operation. So, the continuous research and development should be supported, in order to create mutual relationships between educational institutions and the various networks. Teachers should have more training to gain local knowledge, to devote in local area development and to design learning processes in the communities.

2. Building a society of learning within communities by establishing the practitioner networks at subdistrict and district level. These networks are aimed to have the following characteristics: 1) They are networks specific to the group of stakeholders in each concern; 2) they are networks for mutual learning and exchange of knowledge; 3) they operate as the leaders of knowledge management in the area they have skills and knowledge in; 4) they possess sources of learning; 5) they spread knowledge; and 6) they construct new knowledge for continuous development. The results of the study were to an extent in line with these targets: it created diverse networks in communities, and each of these networks wants to develop sources of learning for communities and schools. However, knowledge management, constructing new knowledge and setting up a learning station still need support from the related government bodies and local administration. Thus, if developing committees (in each topic area) at subdistrict level are established with four sectors: local government, state bodies in the area, practitioners in each topic area, and educational institutions; we hope that, the continuous development of learning resources will be take place. Its means educational institutions can take pupils to learn from and collaborate in development efforts with various networks.

3. Developing knowledge management systems within communities by the cooperative of the school and the practitioner networks. The communicating station of each network will be function as the basic units of knowledge management system. If they need to experiment the new techniques and methods at the station, academic support will be needed from academics worker in related fields, for example public health officer, agricultural officer, or forestry officer. The school should be used data and knowledge of this station for learning.

4. Enhancing academic communications for local development by publishing a local academic journal. This journal provided education materials explaining local concerns, and also provided a channel for local people to present data and concerns related to local area development. This should be organized by Educational Service Offices Area. Beside that the local government should enhancing and continuing support the youth to take a role in communications for local change.

5. Encouraging morality in local development by the invitation the monks participated in the meetings of various networks and supporting the training course of the monks for the youth networks.

This entails promotion of the importance of moral issues together with other issues that will result in increased morality within society.

6. Supporting youth Development to be New Local Leader by establishing the new generation leader network at the level of district and river basin. Supporting this network link with various networks and encouraging them to set up a communication for change in local community. Therefore this group of young people will become an important resource for further development, bring about changes and also have an interest in becoming local leaders.

7. Reforming governance practices from “a chain of command model” into “a networking model” by establishing developing committees (in each topic area) at subdistrict level with four types of partners: local government, state bodies in the area, educational institutions and practitioners members in order to facilitate the role of practitioner networks in giving good quality service or be expertise to enhancing the development in that area of interest. Since each subdistrict has diverse areas to be developed, if development can be coordinated in the area, integrated development could take place, in line with current trend in local development.

8. Developing a coordinating system between the local organizations in the district and in the basin. A coordinating system at district level can be done by supporting the practitioners members in the subdistrict join with the practitioner network at district level so that they can set up agenda in developing together. A coordinating system at the basin area level can be done by considering the joint issue at this level and establishing the core group for integrated development and plan for change together. This core group should include the sectors of the practitioner networks of each district in the same river basin area.

Recommendations

(1) Research funding agencies should support continuous research in both river basin areas in order to create a model of reconstructivist education that is relevant for concrete local level development.

(2) Government on all levels (including local administrative organizations) should reforming governance practices from “a chain of command model” into “a networking model” by supporting the practitioner networks to developing learning resources in each network, by developing local academic journals, and by establishing the new generation leader development network.

(3) Every networks including government sectors should support the activities of the monks to instill morality governance within society.

(4) Teacher training institutions, Educational Service Offices Area, and all schools should integrated the improving system of teachers with a local area academic journal, build understanding of educational philosophy among the educational personal, and support them participated in local area development.

(5) Coordination mechanisms should be developed for the subdistrict, district and river basin area levels and this should be included the participation of practitioner networks in the area.

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