

THE CREATION AND DEVELOPMENT OF A LOCAL CURRICULUM TO TEACH
TRADITIONAL FISHING METHODS IN THE UBOL RATANA DAM AREA,
KHON KAEN PROVINCE

การสร้างและพัฒนาหลักสูตรท้องถิ่น: เรื่องเครื่องมือจับสัตว์น้ำในเขตเขื่อนอุบลรัตน์ จังหวัด
ขอนแก่น

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ABSTRACT

This qualitative investigation had three research aims: 1) To study the background and curricula of occupation and technology departments in primary schools surrounding Ubol Ratana Dam, Khon Kaen Province; 2) To study the current conditions and problems with curriculum implementation by occupation and technology departments in primary schools surrounding Ubol Ratana Dam, Khon Kaen Province; and 3) To create and develop a local curriculum to teach traditional fishing methods in the Ubol Ratana Dam area, Khon Kaen Province. Data were collected by basic survey, observation, questionnaire, interview, focus-group discussion and workshop from respondents at 12 schools in Khon Kaen Province. Results show that local curriculum in technology and occupations began to appear when the Ministry of education adopted the 1978 Curriculum. Currently, local curricula are run by the occupation and technology departments in rural schools. Students in Khon Kaen Province, especially those from area around the Ubol Ratana Dam, are familiar with fishery and the local fishing industry. The content of local occupation and technology curricula is not related to their everyday lives. In order for local fishing curricula to be successful in Khon Kaen schools, teachers must adopt and adapt new methods to maximize the learning potential of individual students in their classes and harness the prior experiences that many of them have as foundation knowledge.

Keywords Curriculum, fishing, Khon Kaen, local

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บทคัดย่อ

การวิจัยครั้งนี้มีความมุ่งหมายเพื่อศึกษาความเป็นมา สภาพปัจจุบันและปัญหาของการดำเนินงานหลักสูตรท้องถิ่นกลุ่มสาระการเรียนรู้การงานอาชีพและเทคโนโลยี จังหวัดขอนแก่น รวมทั้ง สร้างและพัฒนาหลักสูตรท้องถิ่นเครื่องมือจับสัตว์น้ำในเขตเขื่อนอุบลรัตน์ จังหวัดขอนแก่น เครื่องมือ ที่ใช้ในการเก็บรวบรวมข้อมูล ได้แก่ แบบสำรวจ แบบสังเกต แบบสอบถาม แบบสัมภาษณ์ แบบประเมิน แบบบันทึกการสนทนากลุ่ม และแบบบันทึกการประชุมเชิงปฏิบัติการ ผลการวิจัยพบว่า หลักสูตรท้องถิ่นกลุ่มสาระการเรียนรู้การงานอาชีพและเทคโนโลยีเริ่มปรากฏขึ้นเมื่อมีการประกาศใช้หลักสูตรประถมศึกษา พุทธศักราช 2521 (ฉบับปรับปรุง พุทธศักราช 2533) และได้มาปรากฏชัดเจนเมื่อประกาศใช้พระราชบัญญัติการศึกษาแห่งชาติ พุทธศักราช 2542 และที่แก้ไขเพิ่มเติม (ฉบับที่ 2) พุทธศักราช 2545 ซึ่งแม้ว่าจะไม่มีการบัญญัติศัพท์คำว่า “หลักสูตรท้องถิ่น” อย่างชัดเจน แต่ในมาตรา 27 ได้ชี้ชัดว่าการกำหนดหลักสูตรให้สอดคล้องกับท้องถิ่นนั้นเป็นสภาพบังคับของกฎหมายที่โรงเรียนโดยเฉพาะในภูมิภาคต้องจัดให้มีขึ้นควบคู่กับหลักสูตรแกนกลาง สภาพปัญหาพบว่า การจัดการเรียนการสอนหลักสูตรท้องถิ่นมุ่งเน้นการเตรียมนักเรียนเข้าร่วมแข่งขันงานศิลปหัตถกรรมนักเรียน เนื้อหาสาระขาดความหลากหลายไม่สอดคล้องกับความต้องการของนักเรียนและชุมชนท้องถิ่น ครูไม่ครบตามกลุ่มสาระและมีหน้าที่อื่นรับผิดชอบทำให้ขาดการเอาใจใส่การจัดการเรียนการสอน การเปลี่ยนแปลงผู้บริหารโรงเรียนและงบประมาณที่ได้รับอย่างจำกัดทำให้การจัดการเรียนการสอนหลักสูตรท้องถิ่นไม่บรรลุตามวัตถุประสงค์ การเรียนร่วมระหว่างนักเรียนที่มีความบกพร่องทางการเรียนรู้กับนักเรียนปกติครูต้องควบคุมดูแลเอาใจใส่เป็นพิเศษ ผู้ปกครองและผู้นำชุมชนไม่แน่ใจว่าหลักสูตรท้องถิ่นจะทำให้นักเรียนมีพัฒนาการทางการเรียนดีขึ้นได้ เนื้อหาสาระไม่ได้ใช้ในการทดสอบทางการศึกษาแห่งชาติขั้นพื้นฐาน หรือ O-NET ของสถาบันทดสอบทางการศึกษาแห่งชาติ (องค์การมหาชน) การสร้างและพัฒนาหลักสูตรท้องถิ่น เรื่อง เครื่องมือจับสัตว์น้ำในเขตเขื่อนอุบลรัตน์ จังหวัดขอนแก่น ประกอบด้วย 3 ขั้นตอน ได้แก่ ขั้นตอนที่ 1 การพัฒนาหลักสูตร ขั้นตอนที่ 2 เป็นการทดลองใช้หลักสูตรโดยมีการกำหนดประชากรและกลุ่มตัวอย่าง ทดลองใช้หลักสูตร กับกลุ่มตัวอย่าง และประเมินระหว่างทำการทดลอง ส่วนขั้นตอนที่ 3 การประเมินผลการใช้หลักสูตร และเผยแพร่มีการประเมินความพึงพอใจของนักเรียนที่มีต่อการจัดกิจกรรมการเรียนรู้ โดยสรุปการสร้างและพัฒนาหลักสูตรท้องถิ่นนอกจากจะทำให้ได้เรียนรู้วิถีทำมาหากินแล้ว ยังส่งผลให้ชุมชนเป็นสังคมแห่งการเรียนรู้และตระหนักในคุณค่าทรัพยากรสัตว์น้ำที่หล่อเลี้ยงชีวิต สมาชิกในสังคมให้มีคุณภาพชีวิตที่ดีและอยู่ร่วมกันอย่างมีความสุข

คำสำคัญ หลักสูตร จับสัตว์น้ำ จังหวัดขอนแก่น ท้องถิ่น

Introduction

The national royal education bill of 1999 and the subsequent amendment in 2003 stated that education should be aimed to develop Thai people as complete individuals in body, mind, spirit, knowledge and morals. Thai education should be focused on enabling people to live happily and comfortably in society. This is all to be achieved by incorporating existing traditional knowledge into school curricula and adapting it for use in modern Thailand (Ministry of Education, 2002). School occupation and technology departments are specifically trusted with preparing students with the knowledge and skills to live in society. This means they have one of the most important roles in bringing practical traditional knowledge into the classroom (Academic and Education Standards Office, 2008).

The Ubol Ratana Dam is an important symbol of Khon Kaen Province in the Northeast of Thailand. It is located between the Phong and Cheun tributaries of the Mekong River. The dam is in five districts from two province, Khon Kaen and Bua Lamphu. The construction and completion of the dam have created a number of jobs locally but one of the most important is fishing. The waters around the dam are ideal for fishermen, who use traditional methods, such as nets, traps and hooks, to catch fish for consumption in the home or sale (Figure 1).

Figure 1. A selection of traditional fishing methods in the Ubol Ratana Dam area, Khon Kaen Province.





The local primary schools in the districts surrounding the dam integrate elements of Thai culture into their curricula. The occupation and technology departments teach about flower arrangement, embroidery, toy-making, fruit sculpting and cookery. However, these traditional Thai crafts are not specifically related to the surrounding area. The local people are skilled fishermen and live their lives along the Ubol Ratana Dam. Yet these people are not invited to participate in the occupation and technology curricula, nor are their children taught these relevant life-skills at school. While the children are taught important aspects of Thai culture, they are not made to realize the value of their own homes and the surrounding area, which is some of the most important knowledge children can be taught (Cheuratanapong, 1997). Moreover, the life experiences of the students are not being taken into account in the organization of the curriculum (Chompulong, 1999). For this reason, the current curriculum is unsuitable (Srisa-art, 2003). Consequently, the researchers designed this investigation to create and develop a curriculum to teach traditional fishing methods in primary schools in the Ubol Ratana Dam area, Khon Kaen Province.

Research aims

This investigation had three primary aims:

1. To study the background and curricula of occupation and technology departments in primary schools surrounding Ubol Ratana Dam, Khon Kaen Province
2. To study the current conditions and problems with curriculum implementation by occupation and technology departments in primary schools surrounding Ubol Ratana Dam, Khon Kaen Province
3. To create and develop a local curriculum to teach traditional fishing methods in the Ubol Ratana Dam area, Khon Kaen Province.

Research methodology

This is a qualitative investigation carried out from October 2012 to August 2014 in Khon Kaen Province, Thailand. The research area was purposively selected to include schools surrounding the Ubol Ratana Dam. In order to select schools, the research team first conducted a survey of the five education areas adjacent in Khon Kaen Province (Table 1). Education areas within close proximity to the Ubol Ratana Dam were purposively chosen for further research, namely Education Area 4, covering Ubol Ratana District and Education Area 5, covering Phu Wiang and Nong Ruea Districts. Twelve schools within one kilometer of Ubol Ratana Dam were then selected as the research population (Table 2). The research sample of 149 individuals was identified by purposive sampling. The sample was divided into three groups: 33 key informants, 68 casual informants and 48 general informants.

Table 1. Education areas in Khon Kaen Province.

Education Area	Number of Schools	Percent (%)
Khon Kaen Primary Education Area 1	195	16.94
Khon Kaen Primary Education Area 2	231	20.07
Khon Kaen Primary Education Area 3	223	19.38
Khon Kaen Primary Education Area 4	207	17.99
Khon Kaen Primary Education Area 5	295	25.62
Total	1,151	100

Table 2. Schools within 1 kilometer of Ubol Ratana Dam purposively chosen to compose the research population

School Name	District
Ban Phra Bat Tha Ruea	Ubol Ratana
Ban Non Sawan Gao Ka	Ubol Ratana
Ban Phu Kam Pao	Ubol Ratana
Ban Non Jik	Ubol Ratana
God Duk Wittaya	Phu Wiang
Nong Gung Seun Nong No Pattana	Phu Wiang
Non Sila Non Muang Wittaya	Phu Wiang
Ban Krai Nun	Phu Wiang
Ban Gong (Pracha Nugoon)	Nong Ruea
Nong Mek Nong Tum Non Sila Prachasan	Nong Ruea
Ban Pho Tak	Nong Ruea
Ban Nong Puea Ratchaprasit	Nong Ruea

Data were collected from document analysis and field research. The tools used for data collection during this investigation were basic survey, observation, questionnaire, interview, focus-group discussion and workshop. All collected data

were validated using data triangulation methods and arranged into groups according to the three aims of the investigation. Data was analyzed by analytic induction and typological analysis. The results are presented here as a descriptive analysis.

Results

Local curriculum in technology and occupations began to appear when the Ministry of education adopted the 1978 Curriculum, which was revised in 1990. Developments were made as a result of the 1999 Education Act and its 2002 amendments, which stipulated in Section 27 that local curricula with content adapted in accordance with local lifestyle were a mandatory condition of schools, particularly rural schools. These local curricula were to be run alongside the core national curriculum.

Currently, local curricula are run by the occupation and technology departments in rural schools. Primary schools in Khon Kaen Province teach about flower and banana leaf arrangement, creation of traditional toys, bamboo weaving and fruit and vegetable carving. Some schools also teach students to create traditional Thai snacks and maintain medicinal herb gardens. Computers have been integrated into the core curriculum for basic education and learning so that lessons are differentiated and learners are exposed to a variety of methods. School administrators support the teaching of local curricula.

Students in Khon Kaen Province, especially those from area around the Ubol Ratana Dam, are familiar with fishery and the local fishing industry. They would prefer their studies to focus on how to catch fish using local traditional methods and equipment. The reservoir created by the Ubol Ratana Dam is the major food-source of the community. Parents and community leaders encourage the teaching of local fishing techniques and equipment so that their heritage may be systematically passed on to future generations.

This investigation identified a number of problems with the teaching of local curricula focused on traditional culture. There is a substantive lack of variety and the content is not consistent with the needs of students and the local community. Teachers are not required to teach any specific content and no one institution is responsible for the lack of attention to the teaching and learning of relevant local material. Changes in the school administration and the budget are so limited that the local curriculum objectives are not adequately met. Students with

learning disabilities and regular students learn in the same classes with the same material and are taught using the same techniques. Teachers need to control the lessons better and provide more differentiation of their material and teaching styles. Parents and community leaders are unsure that the local curriculum will encourage students to develop better learning because the content is not related to their everyday lives. Moreover, the content of local occupation and technology curricula is not used in national educational tests, such as the basic O-NET of the National Institute of Educational Testing Service (ITD).

The creation and development of a curriculum concerning local fishing tools and methods in the Ubol Ratana Dam, Khon Kaen Province consists of 3 stages. During step one, a draft curriculum is developed by defining objectives and strategies. The current conditions of local culture are assessed, as well as the needs of students in the school. Draft resources and documents for the course are also developed at this stage. In addition, assessment plans are made and the evaluation process is drawn up. The draft is controlled by the Assessment and Improvement Program. During this program (step two) a trial curriculum is run and tested using a purposively selected population and sample group. Stage three consists of the evaluation of the new curriculum, and publication of student satisfaction ratings regarding the learning activities and lesson plans.

From observations, interviews, focus-group discussions and the workshop, the research team designed the following curriculum for a twenty-hour course in local traditional fishing methods for primary students in the Ubol Ratana Dam area (Table 3).

Table 3. Curriculum for a twenty-hour course in local traditional fishing methods for primary students in the Ubol Ratana Dam area, Khon Kaen Province

Topic	Description	Time (hours)
1. Local traditional knowledge	1. Knowledge about local traditions and customs	2
2. Local fishing spots	2. Knowledge about Ubol Ratana Dam	2
	3. Knowledge about natural resources (fish and water animals) in the local area	2
3. Ancient methods	4. Knowledge about fishing equipment	2
	5. Form, materials and parts of traditional	2

	fishing equipment	
	6. Fishing techniques	2
	7. Evolution of fishing equipment	2
5. Bamboo handicrafts	8. Styles of traditional bamboo fishing equipment	2
6. Continuation in society	9. Beliefs about fishing equipment and water animals in local society	2
7. Creativity	10. Inventing local fishing equipment	2
Total		20

Discussion

Radcliffe-Brown, a British social-anthropologist was one of the founding fathers of the structural functionalism school (Kuper, 1973). Radcliffe-Brown (1940) viewed society as a system, whose component parts worked together to maintain stability and strength. The purpose of the local curriculum and reference to community culture in Thai schools is to ensure traditions are continued from one generation to the next. A locally driven curriculum will maintain the intimate link Thai people have with the environment and result in a society that continues to maximize the benefits of their location. These principles are in line with the popular localism in modern Thailand and the successful sufficiency economy theory of King Bhumibol Adulyadej that emphasizes living within ones means in harmony with the surrounding environment and using traditionally proven methods (Hewison, 1999). This principle is also in agreement with the beliefs of Parsons (1954), who asserted that community strength was dependent on continuation of traditionally successful local practices.

The lack of differentiation in current primary school teaching in Khon Kaen is inconsistent with the beliefs of championed developmental psychologist Vygotsky. Vygotsky (1978) argued that successful teaching must take into account the individual differences of students. This constructivist line of thinking has shaped many educational developments over the last thirty years but much of Thai education remains in an outdated behaviourist mode. In order for local fishing curricula to be successful in Khon Kaen schools, teachers must adopt and adapt

new methods to maximize the learning potential of individual students in their classes and harness the prior experiences that many of them have as foundation knowledge.

Conclusion and recommendations

From the results of this investigation, the research team recommends the implementation of a local occupation and technology curriculum covering the methods and equipment of fishermen in the Ubol Ratana Dam area. Local schools can use this investigation as the basis for implementation of a traditional knowledge curriculum that reflects local society. The curriculum should be continuously evaluated and adapted to keep pace with local social changes and community participation should be actively encourages.

In terms of future research projects, similar studies in other areas of Thailand would be beneficial to identify practiced local customs that are inadequately represented by local schools. The generic Thai culture taught in the Khon Kaen schools is not a unique situation. Many other schools across the country neglect their local heritage in favour of a larger national picture. These schools should be investigated and suggestions made to make their occupation and technology curricula more relevant to the experiences and lifestyles of their students.

In summary, the creation and development of a local curriculum in occupations and technology classes will integrate lifestyle and livelihood into student learning. Importantly, such a curriculum will encourage community awareness and the appreciation of valuable aquatic animal resources that have been nurtured over time in Khon Kaen society.

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