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Educational Development in Rural Cambodia

ABSTRACT

In this paper, I describe an ongoing project for economic and educational development on Koh Trong Island in rural Cambodia. Despite challenges in education and economic growth, the project seeks to create economic opportunities and reduce youth migration to urban areas by empowering local youth with essential business skills and English language proficiency by utilizing a local agriculture product, pomelo, as a driver for economic opportunity. Collaboration with stakeholders from Cambodia and Japan identified challenges in agriculture and business skills. Moreover, the paper highlights the pivotal role of Project-Based Learning (PBL) in tailoring language education to meet the specific needs of the community, enhancing engagement and relevance. The paper concludes with actionable steps, stressing the importance of funding for sustainability. Despite the existing challenges, I am optimistic about the project's potential to support long-term economic growth and community empowerment by addressing language barriers as a fundamental step towards achieving these goals.

Keywords: project-based learning (PBL), educational development, curriculum, Cambodia

In this paper, I discuss experiences and challenges in the initial stage of an ongoing economic and educational development initiative in rural Cambodia. Cambodia has faced many issues related to education, particularly a lack of educators in general in the country. With the lack of a populous educated class, the low salaries for public educators, and the general lack of government funding (IMF, 2023), Cambodia faces many challenges in developing economic and educational opportunities for its citizens, particularly in rural areas. As an English language educator, I am keenly aware of how a lack of communicative ability in English can create a barrier to full participation in the rapidly globalized and interconnected world. Globalization and technology are also impacting developing nations and their residents as the gap in access to technology and information increases between urban and rural settings.

As an individual, I wanted to make a contribution. I believe that by supporting English language education at the grassroots or community level, I can assist people in gaining access to other resources and thereby help empower them.

OBJECTIVES

This initial stage was conducted upon the suggestion of the Secretary of State for the Ministry of Education, Youth, and Sport, who introduced the Island of Sangkat Koh Trong, hereafter Koh Trong Island, as an area in strong need of economic and educational development. As such, this study focused on identifying the challenges facing residents and potential areas where sustainable economic development could be enhanced by a training program targeting the youth of the island.

However, for many, access to free learning and business resources, such as online courses, YouTube tutorials, business software, and smart phones apps, a lack of English language proficiency is a barrier. Furthermore, for the islanders, access to an important potential customer base, the expatriate community, also requires English language communication skills. However, the islanders have specific goals, which lend themselves very well to Project-Based Learning (PBL). PBL focuses on specific outcomes, such as building a website, or creating promotional materials, or developing a customer base, and calls upon educators to provide scaffolding or learning support necessary to achieve the project goals.

BACKGROUND

Koh Trong Island lies in the Mekong River in the rural province of Kratie. It is 223 hectares in size with fertile land for agriculture. It is well-known in Cambodia for its unique agricultural product, a local pomelo fruit. Koh Trong Island consists of two villages, Kbal Koh and Chong Koh, with a population of 1,887 and 388 households (University of Kratie, 2021). However, it suffers from a youth drain, the youth migration to urban areas, with many young people moving to Phnom Penh or the Cambodian-Thai border for work upon completion of high school because of the lack of economic opportunities on the island. Development of the economic potential of the local pomelo fruit may be one way to stem the youth drain by providing economic opportunities on Koh Trong Island.

THE POMELO, *CITRUS MAXIMA*

The pomelo, *Citrus maxima*, is a citrus fruit native to Southeast Asia, with its origins believed to be in Malaysia and Indonesia. The pomelo is widely cultivated in tropical and subtropical areas, and is recognized for being the largest citrus fruit, comparable to a small melon in size. The pomelo has a thick, easily peelable green or yellow rind with a milder and sweeter flavor profile compared to grapefruits, with light floral undertones. The texture resembles a grapefruit with easily separable segments. Nutritionally, pomelos are a valuable source of vitamin C, antioxidants, dietary fiber, potassium, and other essential nutrients. The pomelo is consumed fresh (Morton, 1987).

POMELO FROM THE KOH TRONG ISLAND

The pomelo from Koh Trong Island enjoys a reputation for excellent taste. However, currently agricultural practices vary according to the farmer, so quality varies from farm to farm and from fruit to fruit. Most of the fruit are sold by local farmers in the town of Kratie which is accessible by ferry. Some farmers use Facebook to sell fruit to residents in the capital city of Phnom Penh, however the profit from sales to Phnom Penh are similar to that of local sales with shipping and returns eating into the profit margins.

ENGLISH LANGUAGE EDUCATION AS THE GATEWAY TO ECONOMIC DEVELOPMENT

English language education can act as a gateway for economic development. As outlined below, this project took a needs based approach with the goal of developing the basis of capacity for community centered economic development. Because Koh Trong Island does not have a strong economic foundation, the lack of ongoing funding for education and economic development is a key issue at the community level. Therefore, obtaining ongoing free or low-cost access to educational materials, business materials, and smart applications is critical to continued development and, because there are no local language (i.e. Khmer language) versions of most of these important tools, development of a PBL language program to allow access to these tools is crucial. So it is with this background in mind that I began our fact finding mission.

STAKEHOLDERS

This ongoing collaborative effort to promote sustainable development and education, engages various stakeholders in Cambodia and Japan to play integral roles in a shared initiative. Local farmers and youth from Koh Trong Island will actively contribute by bringing on-the-ground perspectives to the project. The University of Kratie, with its administration and educators, supports the initiative through knowledge dissemination and educational outreach. The Ministry of Education, Youth, and Sport (MoEYS) in Cambodia, led by Touch Visalsok, Ph.D., the Secretary of State, serves as a key coordinating entity, aligning educational goals with broader developmental strategies. Meanwhile, Japan's involvement includes the research team at Kagawa University's Faculty of Agriculture and International Office. The Kagawa University team consists of two social scientists with experience and expertise in language, business and entrepreneurship training, and two agriculture scientists specialized in soil and soil nutrition. Additionally, financial backing from the Takahashi Industrial Foundation provided crucial resources for the first stage of this initiative.

FACT FINDING

After initial discussions with MoEYS, discussions were held with the Rector and administrative team of the University of Kratie, followed by discussions with faculty in language education and agriculture. This was followed by visits to Koh Trong Island. At this time, agricultural practices were observed at three farms. Interviews were held with two growers: one was a very successful grower who not only sold pomelo fruit but also sold pomelo cuttings; and the other was fairly unsuccessful selling fruit to the local market stalls, regularly having to give refunds to the stall sellers.

An analysis of the data collected by the University of Kratie on socio-economic aspects: 1) general demographics, 2) job status, family's income, and expenses, 3) education status, 4) vulnerability and the 5) environmental conditions was conducted. Furthermore, an in-depth focused interview was held with the daughter of a local farmer who began using their underutilized resource of pomelo to fund her university education at the University of Kratie. Following this, discussions were held with the Japan International Cooperation Agency (JICA) Cambodia Office and the JICA Shikoku Center to get on site feedback and a better understanding of the funding process through JICA, respectively.

SUSTAINABLE DEVELOPMENT GOALS (SDGS)

While English language education represents a starting point for this project, an important mission of this project is to encourage sustainable development. As such this project addresses the following SDG's:

1. No Poverty
4. Quality Education
5. Gender Equality
8. Decent Work and Economic Growth
12. Responsible Consumption and Production
15. Life on Land
17. Partnership for the Goals

NEEDS AND CAPACITY BUILDING REQUIREMENTS

Our initial investigation conducted with the University of Kratie identified the following "needs" and areas for capacity building requirements:

Agricultural techniques

- Vegetable growing techniques and crops
- Pesticides usage
- Controlling crop pests
- Pomelo growing techniques and care
- Processing of Pomelo peel and other harvest waste
- Quality control

Business skills

- Business planning
- Costing (analysis and pricing)
- Using computers as business tools
- Marketing & Social Media
- Customer service

English language proficiencies

Table 1: Desired outcome/targets and target skills

Outcome/targets	Skills
Attracting international customers in Phnom Penh	Using SNS to advertise in English, responding to customer requests, negotiating pricing, deliveries and addressing quality problems
Specific English language skills for computer usage	Developing English language ability and skills to use open source software, because few localized versions (i.e. Khmer) of software are available (esp. freeware)
Marketing	Describing processes, production, quality control, and food safety in English to target customers
Education and AI	Developing the vocabulary and communication tools with AI to utilize AI for self-directed learning in English
Pomelo growing techniques and care	Developing basic communication and agriculture related vocabulary to access available experts that speak only English/Japanese
Meeting the expressed need at community level for English language support	Encouraging the widespread belief that English language skills will enhance economic opportunities by focusing on language (as described above) that will help empower the community to reach their goals

English language teaching must address the basic language needs of the community (see Table 1). Progression in these target areas requires a certain functional level of English language proficiency, so the development of a project-based learning program is needed. PBL seeks specific outcomes and encourages learners to achieve specific goals, such as developing a webpage, creating marketing materials, etc., in the target language (i.e. English), by providing scaffolding to support a self-directed learning process. The desired outcomes can be in fact considered several projects and therefore PBL lends itself well to help the learners achieve their real life goals in English.

ACTIONABLE ITEMS

Based upon the fact-finding mission, we determined to address the above needs and capacity building requirements by developing a training program that also includes language learning.

Table 2: Future steps for program development from 2024 onward

Training target	Specific targets
i. Agriculture training	<ul style="list-style-type: none"> • Soil analysis and management • Organic production • Pomelo growing techniques and care • Processing of Pomelo peel and other harvest waste • Quality control
ii. Breed registration	<ul style="list-style-type: none"> • Identification of the Pomelo from Koh Trong Island <ul style="list-style-type: none"> • NOTE: will require the cooperation of the University of Kratie with genetic testing to be conducted in Japan, and finally registration as a new species if gene testing merits. However, this will be a low priority in the second stage because of the costs.
iii. Business skills	<ul style="list-style-type: none"> • Intensive content-based training (entrepreneurship, utilizing social media, accounting, etc.) using F2F learning and Video on Demand
iv. English language proficiencies	<ul style="list-style-type: none"> • Development of the English language curriculum for the university <ul style="list-style-type: none"> • e.g. Currently, the university does not have a PBL English language program, which they have recognized as an important goal for their curriculum. However, a lack of funding and training of teachers have prevented them from developing an in-house program. I will provide training on how to develop a program that addresses their needs. • The International Scientific Communication Program of the Faculty of Agriculture of Kagawa University will be used as a model.

Because of the breadth and complexity of the training and the ongoing running costs of training, the next steps will call upon existing expertise at Kagawa University and the University of Kratie (see Table 2). To increase the expertise, faculty members from the University of Kratie for training. To date, one faculty member has already received training funded by the JST Sakura Science Exchange Program. Furthermore, guest lectures and visits from Kagawa University have commenced and will continue in the future. We will post Japanese graduate students in agriculture to teach basic agriculture and science in English and do collaborative research with the University of Kratie faculty (pending funding). The research components will require the acquisition of funding to provide non-destructive sweetness testing equipment and the establishment of a baseline by polymerase chain reaction (PCR) analysis to determine the profile of the “ideal pomelo”. This will allow comparative studies to ensure quality control and can lay the basis for selective breeding of future crop generations.

These initiatives will be supported through the development of online materials, such as templates for sales and promotional materials as well as video on demand training (VOD). These will be jointly developed by Kagawa University and the University of Kratie.

LEARNER DEVELOPMENT EXPERIENCES

English language education plays an important role in this project (as detailed above), since English language proficiency will give the young people of Ko Trong Island access to more educational tools, software and a more affluent customer base. I believe that an important part of developing specific language training for this project was to understand more about the English language education in the area, specifically the challenges faced by learners and teachers. To gain a better understanding of the situation in Kratie, discussions were held and classes observed at a local rural high school in the Province of Kratie and at the University of Kratie.

Local High School: The high school headmaster requested that I not name the school because he had given permission for the visit without checking with the school board. Two classes were observed, a second year and a third year class. The primary teaching methodology observed was grammar translation. All teaching was conducted in Khmer. The only English language output was from students reading aloud as a class from the textbook. After class, I spoke with students from the second-year class who were the most advanced students in the school and were hoping to go to Royal Phnom Penh University, the premier university in Cambodia. They could express themselves in English, but according to them, their communicative ability was due to private tutoring in English on Skype. They reported that their classes at school were not engaging and the level of the class was too low for them. They welcomed a chance to interact with a native speaker of English. While I do not think that being a native speaker of English is related to teaching ability, the students placed great value on the time that they spent with me. They also said that they were so impressed that any university professor, let alone one from overseas, would come to their rural school.

The headmaster expressed pride in how much the school was able to do for the students with such limited resources. He also said it was very challenging because the teacher turnover rate was very high, and the typical student faced many obstacles in getting an education. Some students walked as much as 10 km to get to school. Rains regularly flooded the roads making them impassable on foot. Many students had to help with farming before and after school and, in harvest season, many were unable to attend. He said that except for a few students in the advanced class, most of the students would not go on to university. The biggest challenge he faced as headmaster was getting the students to come and stay in school and he focused on community work involving the parents to extoll the value of education and gain the parents support for their children to come to school.

University of Kratie: A second-year communicative English class was observed. There were 12 students. Although the teacher had an up-to-date knowledge of teaching methodologies and had experience conducting Communicative Language Teaching (CLT), she was required to use the selected textbook which relied heavily on grammar exercises, model conversations and scripted pair work. The students were quite shy while being observed. Consequently, the teacher asked me if I would like to teach. I conducted an introductory activity that encouraged the students to ask questions and be active listeners. After teaching questions and practicing interjecting into a conversation, I told a story with a humorous twist ending. Because the students had interjected to ask for clarification and repetition, they were able to understand the story and the joke of the twist ending. The laughter and enjoyment of the story was the reward. The laugh at the end demonstrated to them that by actively listening, interjecting and questioning, they could understand a complex story and “get the joke”. This ice breaker helped them relax and led to a 10-minute question and answer session about my home country, Canada. Other than their teacher, they had never met a non-Cambodian. They seemed to be quite pleased that they could use English to satisfy their curiosity about me.

After the class, I met with the teacher and head of the language program. They said that their most pressing need was for modern teaching materials. The university and the students could not afford to buy textbooks. Although the many English language education publishers turn a

blind eye to photocopying by schools in Cambodia, the university is not able to permit copying of copyright materials. The teacher explained that since it was necessary for the program to submit the education materials to the university and to MoEYS for clearance, she had to use the outdated materials that were available as the core teaching materials.

In consideration of this, the program head and I considered how we could address the specific needs for the development initiative. The current educational approach was not successful in meeting the communicative needs of conducting business in English. Therefore, we concluded that we needed to use an outcome based approach. Because this project has very specific outputs targeted, Project Based Learning (PBL) will be a key part of the language education for this initiative. There are significant challenges in taking a new approach with PBL. Cambodian students and educators have not been widely exposed to PBL (Lutes & Nhean, 2022), education in Cambodia is still very much teacher centered (Em et al., 2022), and PBL will ask the students to adapt to a new way of learning. However, the specificity of the needs and the focus of the learners lends itself well to PBL. Researchers have recognized and emphasized the importance of relevance as a fundamental motivator, and as a positive influence on motivation in classroom learning (Alessi and Trollip, 2001; Keller and Suzuki, 2004, Dornyei and Ushioda, 2011; Boo et al., 2015). The learners are interested in learning English for developing their businesses and want to focus specifically on skills that will directly improve their ability to access the expatriate community in Phnom Penh. As such, a consensus was reached that PBL was the most suitable approach.

As noted above, successfully exposing and acclimatizing the students to this new approach to learning will be an important factor in the success of this project. Language learner development will necessitate independent and self-directed learning, and will require support and scaffolding from the language teachers at the University of Kratie.

CONCLUSIONS AND THE NEXT STAGE

Koh Trong Island has unique agricultural advantages, such as rich soil, adequate rainfall, sufficient sunlight and a high quality parent fruit pool, for the cultivation of pomelo. To enhance its economic significance, formally establishing and registering this unique plant as a novel breed is an important long-term goal. This process will involve comprehensive analysis of the farming conditions, encompassing considerations such as soil and water quality. Providing support with advanced growing techniques is crucial, along with establishing standards for cultivation and evaluation of food quality. The ultimate goal is to create a distinct brand, leveraging the existing farmer cooperative. By engaging the local youth in better business planning and practices, there is real potential for both economic growth and community empowerment in the region. However, we are keenly aware of the barriers that exist for this community because of a lack of English language proficiency. Furthermore, it is important to understand that initially the English language goals of the learners may be only to gain access to the market, or to deal with foreign customers. It is these targeted goals that PBL will be utilized to address.

To realize these ambitious goals, there must be a focus in the next stage on obtaining funding. Currently, funding applications are being planned through JICA, JST, JSPS and international foundations. The following steps will depend on the type of funding obtained and the duration of the funding. However, I remain optimistic that this project will continue.

CONFLICTS OF INTEREST

The author declares that he has no conflicts of interest.

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