



# The Development of Context-based Learning Model Emphasizing the Special Economic Zone and Thailand 4.0 Context to Improve Grade 4 Students' English Communication Skills

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## ABSTRACT

This article aimed to analyze the literature related to Context-based Learning (CBL). The contexts used in CBL in this study were the Chiang Khong Special Economic Zone (in Chiang Rai province located in the Northern region of Thailand) and Thailand 4.0. The authors reviewed and analyzed the literature related to CBL, Chiang Khong Special Economic Zone and Thailand 4.0 and then synthesized seven teaching steps: 1) Set a learning context for “Stability, Wealth and Sustainability”, 2) Understand context, 3) Identify a problem in the targeted context, 4) Construct knowledge through the practice of Principles of the Sufficiency Economy Philosophy, 5) Share knowledge and link with environmental conservation, 6) Conclude and reflect, and 7) Transfer knowledge to new context. At the end, the authors concretely presented the example of lesson plan using the CBL emphasizing Chiang Khong Special Economic Zone and Thailand 4.0 to teach English for Grade 4 students in order to help them develop their communication skills.

**Keywords:** *Context-based learning, special economic zone, Thailand 4.0, English, communication skills*

## 1. INTRODUCTION

Learners in the rapidly changing world of the 21<sup>st</sup> century must contend with constantly changing environmental and social conditions. Students can search for various pieces of information on the internet using various knowledge sources. To do that, students need English skills used for communication among the world's population, as well as in the lives of learners as they grow older. Using English in everyday life and at work is unavoidable in the modern era. As a result, it is critical that students should improve their English communication skills in order to be able to communicate in receiving and sending messages effectively, as well as to have the ability to live a quality life in the 21<sup>st</sup> century world.

Thailand at current is moving to the Thailand 4.0 era aims at promoting the Value-Based Economy to unlock the country from several economic challenges resulting from past economic development models which place emphasis on agriculture (Thailand 1.0), light industry (Thailand 2.0), and advanced industry (Thailand 3.0).

These challenges include “a middle-income trap”, “an inequality trap”, and “an imbalanced trap”. There are four objectives of Thailand 4.0: 1) Economic Prosperity: to create a value-based economy that is driven by innovation, technology and creativity; 2) Social Well-being: to create a society that moves forward without leaving anyone behind (inclusive society) through realization of the full potential of all members of society; and 3) Raising Human Values: to transform Thais into “Competent human beings in the 21<sup>st</sup> Century” and “Thais 4.0 in the first world; and 4) Environmental Protection: to become a livable society that possesses an economic system capable of adjusting to climate change and low carbon society. The targets are to develop at least 10 cities into the world's most livable cities, reduce terrorism risk, and increase the proportion.

To achieve the first objective “Economic Prosperity”, the Thailand government has announced several Special Economic Zones throughout Thailand for stimulating the growth of economy in special and

potential zones. One of these special zones is the Chiang Khong Special Economic Zone located in the northern region of Thailand near the Thailand and the Lao People's Democratic Republic border.

The context of Chiang Khong Special Economic Zone is highly regarded as a major context to support learning English in this study because it is the context in students' daily lives that supports Thailand 4.0 movement and students should learn about the context they live with. Context-based Learning (CBL) is proposed in this study that emphasizes the problems in the local context and solving such problems by using the Sufficiency Economy Philosophy and Thailand 4.0 until reaching the solution and a body of knowledge that can put into real-life practice [1].

### ***1.1. Context-Based Learning (CBL)***

Parry Whitelegg [2] discussed about the process of organizing CBL activities: Lessons begin with the context or topic with which the learner is already familiar or will be familiarized with in each learning management plan, different contexts will be used depending on expected learning outcomes and prior knowledge or understanding. This "brainstorming method" is a good place to start when preparing for the first step. Give each learner a unique set of skills and experiences. It also assists learners in understanding the significance of the context in which they are learning in relation to the learner's own life. After students exchange thoughts and gather information, the learner's response will not be judged on whether it is correct or incorrect. This aids in comprehending some questions or issues concerning this context. Students must ask questions and devise strategies to find answers. Learners are encouraged to ask questions based on their interests during the first phase. Encourage students to take action by determining factors and designing an experiment for them. Students defines data sources and important words related to the context for further research, and the expansion of this period of thought is considered the lesson's conclusion. During this time, learners are expected to understand the main concepts in each learning management plan and to encourage learners to create self-conclusions of the idea by presenting it for discussion, and to draw conclusions about the questions set in section 1 about that context, this can be done by agreeing or disagreeing and giving reasons about being satisfied or dissatisfied, etc. Students drill down and establishing relationships to demonstrate to students that the concept is understood. The lessons can be completely applied in new contexts or situations. And by assisting in the birth of learners' increased self-assurance and appreciation for what they learn. At the same time, students' comprehension can also be assessed or re-assessed. As a result, the learning management plan is complete once the students are permitted to use it. Ideas for explaining or analyzing other contexts are included in at least one additional context.

CORD [3] outlines the five essential elements of CBL as follows: 1) Relating refers to learning from a context (event or situation) that is relevant to students' daily experiences; 2) Experiencing refers to learning through hands-on activities such as experimenting, searching, or even inventing things that result in learners making discoveries, finding new information, and ideas; 3) Applying refers to the application of concepts and knowledge to other contexts relevant to students such as careers, real-life events, and so on; 4) Cooperating entails collaborative, responsive, and communicative learning with other students, such as through group experiments; and 5) Transferring means comprehending what has been learned and applying it to new situations.

Gerber, William John. [4] define context-based learning management as three stages: exploration, concept introduction, and concept application. Each stage uses the following details: 1. Survey stage in which students discuss the study during the experiment, present ideas, and search for information; 2. Concept introduction in which students understand the main concepts and exchange ideas to obtain the best and most accurate ideas used by learners to enter Bloom's advanced concepts, followed by summarizing the correct concepts and applying them to other situations.

Gilbert [5] proposed four major steps of CBL management process as follows: 1) Setting the focal event, at this stage, the teacher presents a context that is relevant to the situation related to school learners or surrounding communities that students are interested in to lead the discussion together about where, when, and how such situations can occur, and how the consequences are dealt with. They have identified the issues and devised solutions to the issues that arise. So, at this stage, the context is established; 2) Taking action. This will serve as the starting point of the lesson and act as a stimulus for learners to learn new concepts (Learning task). At this stage, learners engage in activities, interact with others, study, research and solve problems that arise in situations on their own; such as experiments, problem-solving activities, small group discussions, role play, and learning concepts; 3) Data retrieval invention, etc., which will result in learners discovering new knowledge or ideas (Learning key concept). At this stage, learners will learn relevant concepts by discussing and exchanging findings to jointly summarize the concepts obtained from the learning in which teachers should take into account the basic knowledge of the learners as well; 4) Apply in new situations (Re-contextualize). Let's discuss the link about the application of knowledge or concepts relevant to certain situations, or the application of knowledge in learners' daily life. Thus, at this stage, the context acts as an illustration and expands knowledge after learning the concept.

Warren [6] proposed the six-step process for CBL management: 1) Place in context. The teacher introduces the context and invites students to participate in context-related discussions; 2) Broaden the context.

Students create a concept map based on the context; 3) Identify issues and develop hypotheses. Students observe the context, identify problems, and form hypotheses in order to solve problems; 4) Knowledge Lookup. Students seek knowledge through a variety of methods such as experiments, surveys, and observations in order to find answers or solutions to problems; 5) Compile the learning outcomes. Students present the outcomes of their knowledge exchange. In the discussion room, teachers, and students; 6) Unrelated to the context. Students discuss their newly acquired knowledge.

Beverly et al. [7] divided CBL activities into three steps: Step 1: Students form small groups. Then, discuss the problem situation and determine what students already know and what they have no idea about that could be used as a solution to a problem, with reasons accept it or not, and to create a guideline for meeting the goals; Step 2: Students use self-directed learning (self-directed) to achieve the goal by searching for knowledge, practicing skills, and looking for resources; Step 3: Students apply what they've learned and the skills they've developed through practice so that it can be used in the discussion again, and to take action to solve problems in which students will be involved in criticizing fellow students' and teachers' opinions.

Jinda [8] stated that it can be seen that although educators and organizations have addressed a wide range of aspects and procedures of CBL management, but when considering in detail each aspect or process, was aligned with four Gilbert's conceptual steps: Step 1: Determine the situation. At this stage, the teacher presents a guiding context for the students. Recognizing the need to learn through teachers defining situations that are relevant to students, or situations in which students are interested, for students to think about and discuss the situation, such as where, when, how, and what the outcome is, including for students to determine problems and think of solutions to problems that arise; Step 2: Take Action. It is a process in which students gather to do group activities and communicate with other students for the purpose of self-study and interactive activities such as experiments, problem solving, small group discussions, role playing, data searching, and inventing things that will lead to students discovering new knowledge or ideas; Step 3: Understand key concepts. Students will learn about important concepts at this stage by providing each other with the opportunity to present their findings and summarize their knowledge or teachers' self-discovery concepts, and must take prior knowledge and students' basic knowledge into account; Step 4: The teacher introduces the search context in order to encourage students to apply knowledge by organizing activities to encourage students. As well as an application of

relevant knowledge or concepts in other situations or knowledge application in daily life.

Sakchai [9] proposed four steps of CBL as follows: Step 1: Teachers have students discuss situations related to their daily lives that the teacher has assigned to them that are as numerous as their abilities. Teachers should only be used as a guide when learning math. Through collaborative analysis, students determine what they want to learn in context, and then have students think aloud, exchange ideas, and discuss to demonstrate their prior knowledge and knowledge gaps that students can debate and exchange knowledge about within the group, as well as collaborate to set goals and develop strategies to achieve them; Step 2: The teacher encourages students to take charge of their own learning (self-directed learning) to achieve the objectives set in steps. This includes looking for information from a variety of sources both inside and outside of the classroom. such as a knowledge sheet, a literary textbook, and expert advice. In which case, students will be able to identify differences in their beliefs and assumptions in this way, and by using the why, what, and how questions as a guide to finding answers; Step 3: Teachers have students meet again in groups to exchange opinions, share information, and apply the knowledge gained to correct the situation. Why are you asking questions? How do you continue criticizing each other's points of view in a way that these things can also develop students' critical reflection skills? Students will summarize what they have learned at the end of Step 3. Learn and discuss how things can be learned with one another. How might it be applied in the future? The teacher will evaluate what students have learned; Step 4: Teachers ask students to reflect on their roles in learning and to critique the group work process. Students must reflect on what they have learned from context-based activities, as well as how they have gained knowledge and experience. How will this knowledge be used in the future?

The researchers therefore concluded that the context to be studied must be determined first in the CBL management process. Students must comprehend the given context. Problems can be identified in the context of study, and then actions can be taken to find knowledge and present it to friends in class to exchange this knowledge. Conclusions and reflections from friends are made, and knowledge can be transferred into new contexts.

From this review of literatures related to CBL (Parry Whitelegg [2]); Cord [3]; Gerber, William John. [4]; Gilbert [5]; Warren [6].; Beverly et al. [7]; Jinda Pramchu [8]; Sakchai Kwansin [9], the authors reviewed and analyzed the CBL management and reached the common seven teaching steps of CBL.

**Table 1.** Synthesis of CBL process.

Source								Synthesis of CBL process
Whitelegg [2]	Cord [3]	Gerber [4]	Gilbert [5]	Warren [6]	Beverly et al. [7]	Jinda Pramchu [8]	Sakchai Khwansin [9]	
Introduce the lesson with context	Learn about contexts related to everyday life		Set the situation	Bring it into context with an explanation		Set the situation	Discuss the situation	Identify the context
		Explore		Expand context	Discuss problem situations			Understand the context
				Identify problem and make hypothesis				Identify the problem in the context of the study
Make a question, plan, and take action	Learn through hands-on activities		Take action	Explore the knowledge	Proceed according to the set guidelines	Take action	Teachers encourage students to learn on their own	Take action in the search for knowledge
Expanding discussion ideas		Introduce to concepts	Learn key concepts			Learn key concepts	Discuss and exchange	Exchange knowledge
Go deep and build relationships				Summarize learning results			Reflect	Summarize and reflect
	Apply in new contexts or situations	Apply transfer	Used in new situations	Transfer to new context	Apply gained knowledge and skills from the practice	Apply in new situations		Transfer knowledge in a new context

From Table 1, the process of CBL management consisted of seven teaching steps: Step 1: Identify the context; Step 2: Understand the context; Step 3: Identify the problem in the context to be studied, knowing; Step 4: Take action in the search for knowledge; Step 5:

Exchange knowledge; Step 6: Summarize and reflect; Step 7 : Transfer knowledge to a new context.

### **1.2 Thailand 4.0 Policy**

Thailand 4.0 is an economic model with objectives that strengthen from within and lead Thailand into the "First World Countries" that are "stable, prosperous, and sustainable" in the context of the Fourth Industrial Revolution. In addition to connecting with the global community, it has a critical role in driving the country's reforms in various fields in order to organize and adjust the direction of the country's development in order for it to prosper and become able to deal with new

opportunities and threats as they emerge in the 21st century [10] [1] [11].

The authors reviewed and analyzed three literatures related to the Thailand 4.0 policy (Education Research and Quality Assurance Division, [10]; Kasem Maesincee, [1]; Dr. Suwit Maesincee, [11] and has synthesized the concept of the Thailand 4.0 policy as shown in TABLE 2.

**Table 2.** Summarizes the concept of Thailand 4.0 policy.

Research Administration and Educational Quality Assurance Division [10]	Kasem Maesincee [1]	Suwit Maesincee [11]	Summary of Thailand 4.0 policy
Economic wealth, social well-being	The country is prosperous and long-lasting. It is a developed country with growth based on the Sufficiency Economy Philosophy.	It is the starting point for a 20-year national strategy aimed at concretely transforming the country into a prosperous and sustainable one.	To develop the country toward prosperity and sustainability in accordance with the Sufficiency Economy Philosophy
		It is a "Reform in Action" initiative that promotes economic structural reform, R&D, and education reform all at the same time.	Reform the economic structure, research and development, and education
		It is the synergy of all sectors under the concept of "civil state," joins forces with a network of research and development business partners and world-class personnel under the Sufficiency Economy Philosophy	Build a network of business partners under the concept of "civil state," world-class research and development personnel based on the sufficiency economy philosophy
Increase human values and cultivate Thais to be "Perfect Humans in the 21st Century,"			Increase human values and cultivate Thais to be "Perfect Humans in the 21st Century,"
Environmental protection.			Environmental protection.

From TABLE 2, the process of learning management using the Thailand 4.0 policy concept consists of: To develop the country toward prosperity and sustainability in accordance with the Sufficiency Economy Philosophy; Reform the economic structure, research and development, and education; Build a network of business partners under the concept of "civil state," world-class research and development personnel based on the sufficiency economy philosophy; Increase human values and cultivate Thais to be "Perfect Humans in the 21st Century,"; and Environmental protection.

### ***1.3 The Context of Chiang Khong Special Economic Zone, Chiang Rai province, Thailand***

CBL used in this paper utilized the context of Chiang Khong Special Economic Zone, Chiang Rai province, Thailand. Students will be able to understand the Special Economic Zone in their local context It is also a legacy of traditions, arts, and ethics that express the prosperity and orderliness of traditional practices, with content, activities, situations, phenomena, or examples in lessons connected to the local context to achieve the established learning objectives. The local context in Chiang Khong District Chiang Rai has a way of life bound to the Mekong River. The author has proposed seaweed that is a natural plant in Mae Khong River to drive the CBL activities.

The Mekong River's freshwater algae so called "Gai", which has historically been associated with the Mekong River and the Chiang Khong people, can be used to cook a variety of foods, including steamed "Gai" wraps, "Gai" curry, "Gai" chili paste, and has been developed to be processed into cookies and crispy fried from freshwater algae (Gai) to attract young and adolescent customers who previously dislike "Gai". In sum, "Gai" directly affects local people's economic value. As a learning medium, there is video material about collection of "Gai". In English conversation sentences, there are questions and answers. There are activities where students can discuss and share their knowledge, link to the Thailand 4.0 policy concept, and record a summary of knowledge in

the activity sheet. "Gai" has been used as an ingredient in a new creative menu. Including designing, creating advertising media, and publishing on social media, which the author believes will stimulate students' interest in learning English because "Gai" is one already included in their real lives.

**2. CONTEXT-BASED LEARNING MODEL EMPHASIZING THE SPECIAL ECONOMIC ZONE AND THAILAND 4.0**

After the authors reviewed the literature on CBL and the Thailand 4.0 policy integration, the CBL emphasizing the Special Economic Zone and Thailand 4.0 consisted of seven teaching steps as TABLE 3.

**TABLE 3.** Summary of CBL emphasizing the Special Economic Zone and Thailand 4.0.

Common teaching steps of CBL	Thailand 4.0	Summary of CBL emphasizing the Special Economic Zone and Thailand 4.0
Set a learning context.	Develop the country towards "security, prosperity, and sustainability" by joining forces with the people of the state with a network of business partners. Apply the philosophy of sufficiency economy and focus on environmental conservation.	Set a learning context for "Stability, Wealth, and sustainability."
Understand context.		Understand context.
Identify a problem in the targeted context.		Identify a problem in the targeted context.
Take action to find knowledge.		Construct knowledge through the practice of principles of the sufficiency economy philosophy.
Exchange learning		Share knowledge and link with environmental conservation.
Conclude and reflect.		Conclude and reflect.
Transfer knowledge to a new context.		Transfer knowledge to a new context.

From TABLE 3, CBL emphasizing the Special Economic Zone and Thailand 4.0 consisted of the steps as follows: 1) Set a learning context for "Stability, Wealth, and Sustainability"; 2) Understand the context; 3) Identify a problem in the targeted context; 4) Construct knowledge through the practice of principles from the sufficiency economy philosophy; 5) Share knowledge and link with environmental conservation; 6) Conclude and reflect; 7) Transfer knowledge to a new context. The authors then applied the CBL emphasizing the Special Economic Zone and Thailand 4.0, as mentioned in the previous section, to design one example lesson plan on Green Algae for Grade 4 students. It covers the learning subject, namely, Language for Communication. Learners understand and

interpret what they hear and read from various types of media, and express their opinions. When learning about Green algae, students can (Knowledge: K) Define the terms associated with Mekong freshwater algae (Gai). (Process: P) Read the given story and comprehend what was read correctly. (P) Pay attention to the story and correctly answer the questions. (P) Be capable of communicating their thoughts, knowledge, and attitudes about Mekong (Gai) freshwater algae in Chiang Khong District, Province of Chiang Rai, in writing and orally. (Affective: A) Studying discipline, commitment to work, and self-assurance. The learning activities in the Chiang Khong Special Economic Zone are an integrated base of Thailand 4.0, with details as follows:

*Step 1: Set a learning context for "Stability, Wealth, and Sustainability"*

Students watch a YouTube video clip of "Gai" Mekong River. Then, a teacher asks students in English to respond to questions related to the video clip. Have an English conversation in which various words are asked and answered regarding seaweed and food menus. Then, have students read and discuss the knowledge sheet about kelp, stability, wealth, and sustainability, and record your findings in the worksheet assigned by the teacher.

*Step 2: Understand the context*

Students watch a YouTube video clip of "Collecting Gai in Mekong River". This special activity happens only once a year. This aims to make students aware of the value of Gai in generating income for villagers nearby Mekong River. Minerals and nutrients found in algae, the villagers' way of life, and the problems they face at present day. After that, the teacher asks students so that they can learn through the English question-and-answer sentences. The process of collecting Gai from Mekong River has special steps and techniques derived from folk wisdom inherited from ancestors. Have students play games to read English words. Then have students complete a trigger process worksheet and jointly respond to the response.

*Step 3: Identify a problem in the targeted context*

Students read the knowledge sheet, which contains information about Teacher Mo, who initiated the use of various herbs to reduce the fishy smell of Gai, after polling the students and discovering that they did not like to eat Gai due to the not good smell. This includes teaching students how to make Gai cookies. After that, have students watch a video about Gai processing. It's crispy fried Gai with a variety of flavors. Kai seaweed cookies and others were created by primary school students in Chiang Khong district for other students to see the concept of making Gai to add value and solve the fishy smell problem of Gai. It also helps students earn money while they are studying. In addition, to help villagers who collect Gai. Finally, the teacher instructs the students to create a worksheet indicating the problem that they wished to investigate. What is the issue you want to investigate? As well as suggest ways to apply the Sufficiency Economy Philosophy to solve problems by exchanging knowledge and debating in small groups.

*Step 4: Construct knowledge through the practice of Principles of the Sufficiency Economy Philosophy*

The teacher assigns the students to read the knowledge sheet about applying Sufficiency Economy Philosophy to sustainable business operations as a guideline for

creating menus from Gai. Following that, the teacher instructs the students to write down the ingredients and cooking steps from the menu that they helped create in small groups. The teacher walks around the classroom, giving additional advice to each group of students.

*Step 5: Share knowledge and link with environmental conservation*

Students present their work, which includes writing down the ingredients and the cooking process from Gai in step 4, to the whole classroom, and to have the assigned group of students record their worksheets to see how their peers have applied the Sufficiency Economy Philosophy in order to be able to exchange knowledge with friends. The teacher then asks the students to think about the connection between the Sufficiency Economy Philosophy and environmental conservation. And what does this have to do with inventive Gai menus?

*Step 6: Conclude and reflect*

Students are required to respond to answer questions about the Thailand 4.0 policy "Security, Prosperity, Sustainability" and the Sufficiency Economy Philosophy in a worksheet. Students should be aware of environmental conservation and adapt to create menus from Gai. Students prepare to present in front of the class, exchange knowledge, ask questions, and make additional suggestions during the presentation. The teacher instructs the students to take notes in their own notebooks.

*Step 7: Transfer knowledge to new context*

Teacher distributes knowledge sheet on a media for advertising food and beverage programs, to each group of students to be used as a guideline for advertising media design as the student's menus from Gai. Students must use this advertising media to advertise through social media such as Facebook, Line, and/or Instagram, etc. The group that receives the highest number of likes will receive the award or highest marks.

### 3. CONCLUSION

The Chiang Khong Special Economic Zone and Thailand 4.0 policy are utilized with CBL in this study in order to teach English as a foreign language for Grade 4 students more effectively. The story of Gai is proposed and presented as one effective local context integrating specific custom, tradition, life styles, and so on for villagers nearby Mekong River. In this case, students have chance to learn from the context (Gai) they are familiar with yet gradually diminish from time to time. This context is still applicable to many more subjects such as science, social studies, and so on.

In addition, there are numerous and diverse contexts in which learning management can be applied in the

Chiang Khong Special Economic Zone. To be remarked, teachers should carefully consider the conveyed to the learners and the focus context. CBL should focus on students critical and creative thinking and students should be able to apply their knowledge of English language in their daily lives. CBL should also raises student awareness of local wisdom conservation, as well as the world's population in the 21<sup>st</sup> century. As a result, the author invites administrators, teachers, and people involved in the development of teachers'

correspondence between the targeted content to be professions to bring the concept of CBL in the Chiang Khong Special Economic Zone, integrated with Thailand 4.0, to manage learning as a guideline for improving the quality of English language teaching, and further developing the quality of teaching and learning English as a foreign language.

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