

The Development of the English Content-Based Reading Materials for Buddhist Student Monks

การพัฒนาสื่อการอ่านภาษาอังกฤษตามแนวการสอนแบบเน้นเนื้อหา สำหรับพระนิสิต

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ABSTRACT

The objectives of this study were 1) to develop the English content-based reading materials for Buddhist student monks, 2) to explore quality of the English content-based reading materials by examining the attitude of student monks, and 3) to explore quality of the English content-based reading materials by examining the attitude of teachers. The study was conducted in 6 stages starting from the identification of needs to create materials to the evaluation of the effectiveness of the developed materials. The participants of 42 student monks and 3 English teachers were selected from the Education Department of Wat Phra Dhammakaya in academic year 2017. Instruments used were semi-structured interview, needs analysis questionnaires, and evaluation questionnaires. The qualitative data was analyzed by the content analysis. The statistics used to analyze the quantitative data were frequency, percentage, mean, and standard deviation. The findings revealed that the English content-based reading materials for Buddhist monks were effectively developed by using the materials development framework of Tomlinson (2011), embedded with Six-T's approach of Stoller and Grabe (2017), and the quality was the academic and physical aspects and the effectiveness in enhancing reading comprehension. In terms of the quality of academic and physical aspects, student monks had a positive attitude towards 6 criteria including: content, organization of content, presentation of content, language use, activities applied, and layout and design, and teachers had a positive attitude towards 7 criteria, 6 of which were exactly the same as those of student monks plus the criterion of the teachers' manual. This study clearly demonstrates theoretical processes of developing instructional materials of good quality and could be used as an example to illustrate the connection between developing instructional materials and English language learning research for teachers, materials developers, and researchers in the field.

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บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อ 1) พัฒนาสื่อการอ่านภาษาอังกฤษตามแนวการสอนแบบเน้นเนื้อหาสำหรับพระนิสิต 2) หาคุณภาพสื่อการอ่านภาษาอังกฤษตามแนวการสอนแบบเน้นเนื้อหาโดยการศึกษาความคิดเห็นของพระนิสิต 3) หาคุณภาพสื่อการอ่านภาษาอังกฤษตามแนวการสอนแบบเน้นเนื้อหาโดยการศึกษาความคิดเห็นของครูผู้สอน งานวิจัยนี้ประกอบด้วย 6 ขั้นตอน ตั้งแต่การระบุความต้องการในการพัฒนาสื่อการเรียนการสอนจนถึงการประเมินประสิทธิภาพกลุ่มตัวอย่างในการวิจัย คือ พระนิสิตจำนวน 42 รูป และครูสอนภาษาอังกฤษจำนวน 3 คนจากสำนักการศึกษา วัดพระธรรมกาย ปีการศึกษา 2560 เครื่องมือที่ใช้ในการทดลอง ได้แก่ การสัมภาษณ์ แบบสอบถามความต้องการ และแบบประเมินผล ข้อมูลเชิงคุณภาพใช้การวิเคราะห์เนื้อหา สถิติที่ใช้ในการวิเคราะห์ข้อมูลเชิงปริมาณ ได้แก่ ค่าแจกแจงความถี่ ร้อยละ ค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน ผลการวิจัยพบว่า สื่อการอ่านภาษาอังกฤษตามแนวการสอนแบบเน้นเนื้อหาสามารถพัฒนาอย่างมีประสิทธิภาพโดยใช้กรอบแนวคิดการพัฒนาสื่อการเรียนการสอนของ Tomlinson (2011) ผสมกับแนวคิดแบบ Six T's ของ Stoller และ Grabe (2017) และพระนิสิตและครูผู้สอนมีความเห็นว่าคุณภาพของสื่อการอ่านภาษาอังกฤษตามแนวการสอนแบบเน้นเนื้อหา ประกอบด้วยคุณภาพด้านวิชาการและลักษณะทางกายภาพ และประสิทธิภาพในการเสริมสร้างความสามารถในการอ่านภาษาอังกฤษเพื่อความเข้าใจ ในส่วนคุณภาพด้านวิชาการและลักษณะทางกายภาพพระนิสิตมีความคิดเห็นที่ดีต่อเกณฑ์คุณภาพ 6 ประการ ได้แก่ เนื้อหา การจัดลำดับเนื้อหา การนำเสนอเนื้อหา ภาษากิจกรรม การออกแบบรูปเล่ม ส่วนครูผู้สอนมีความคิดเห็นที่ดีต่อเกณฑ์คุณภาพ 7 ประการ ได้แก่ 6 เกณฑ์เช่นเดียวกับพระนิสิต และเกณฑ์คู่มือครู งานวิจัยนี้ได้แสดงขั้นตอนเชิงทฤษฎีในการพัฒนาสื่อการเรียนการสอนให้มีคุณภาพอย่างชัดเจนและสามารถใช้เป็นตัวอย่างแก่ ครูผู้สอน ผู้พัฒนาสื่อ และนักวิจัยในเรื่องความเชื่อมโยงการพัฒนาสื่อการเรียนการสอนและงานวิจัยการสอนภาษาอังกฤษได้

Background of the Study

Reading is clearly an essential skill for professional and academic achievement (Zimmerman, 2012), but it is probably the most difficult language skill to master due to the involvement of multiple skills including orthographic, phonological, syntactic, and semantics (Al-Mahrooqi, 2014). The complexity of the reading process in a foreign language is even greater for EFL students who have to study the subject areas in English since they require additional factors such as adequate language proficiency and background knowledge. In the context of EFL, reading difficulty is a persistent problem among EFL readers since they have not mastered reading strategies (Shang, 2015). Thailand also encounters the problem of low level of reading proficiency nationwide (Kasemsap & Lee, 2015), and reading comprehension is where many Thai students have problems when taking reading tests (Chawwang, 2008).

In the same way as Thai EFL learners, Thai Buddhist student monks are confronted with a variety of reading difficulties comprising of inadequate vocabulary, structural complexity, insufficient exposure to authentic target language, poor reading strategies, and so on. Importantly, the lack of appropriate reading instruction materials specifically designed for Buddhist monks impedes them to use their background knowledge of the subject matter to bear upon the reading comprehension process (Peregoy & Boyle, 2000) and to facilitate in gaining language knowledge, particularly language use in context (Short & Echevarria, 2004).

To solve the problems of English reading difficulty and the lack of suitable reading materials, it is crucial to provide student monks with reading materials that explicitly teach reading strategies and simultaneously provide meaningful and relevant content of their background knowledge. Thus, in this research, the researcher tried to create the content-based reading materials as a rich source of learning for Buddhist student monks at university level using the framework of materials development by Tomlinson (2011), and Six-T's approach of Stoller and Grabe (2017). The developed materials explicitly instruct three cognitive reading strategies of Anderson (1991) including predicting, guessing the meaning, and writing a summary. Although these selected strategies are commonly used by laity readers when reading any types of texts, they will greatly help facilitate student monks in achieving reading comprehension. Authentic religious texts are rich with distinct characteristics in the lexical, phrasal, and discourse levels, and these reading strategies promote them to use their solid background knowledge of Buddhism before reading, during reading, and after reading, consecutively. The researcher hopes that upon completion of the content-based reading materials student monks would become strategic readers and be able to take advantage of their background knowledge to comprehend text.

Research Questions

1. How can the content-based reading materials be developed for Buddhist student monks?
2. What is the quality of the English content-based reading materials based on student monks' attitude?
3. What is the quality of the English content-based reading materials based on English teachers' attitude?

Literature Review

In general, when people think about language-learning materials, they tend to associate this term with course books for their experience of using this type of materials. Actually, this term refers to a broad range of resources such as CDs, newspapers, posters, songs, VDO clips, websites, etc. that are used as tools to ease, encourage, improve and promote teaching and learning activities in any process of instruction (Ololube, Kpolovie, & Makewa, 2015). Tomlinson (2011) views materials development as 'a field of study' and 'a practical undertaking' (p. 2). The former refers to the principles and procedures required to design, implement and evaluate language-teaching materials, and the latter refers to the sources of language input designed by writers, teachers or learners to promote effective language learning. According to his viewpoint, the process of materials development was summarized into

6 stages: 1) identification of needs to precisely designed materials to solve the existing problems; 2) exploration of needs to identify language, functions, skills to be included in the developed materials; 3) contextual realization to examine and selecting ideas, contents, or texts that provide familiarity and appropriateness to the learners' context; 4) pedagogical realization to examine and select meaningful exercises and activities with clear explanation; 5) physical production concerning the physical and academic aspects of the developed materials; and 6) evaluation of the effectiveness that can be done by using pre-use, whilst-use, or post-use evaluation. However, only whilst-use evaluation and post-use evaluation provide reliable results. Basically, the former measures the value of materials' content and physical aspects while the latter measures the materials' effects on the users such as the gained knowledge, the improvement of ability, etc. (Tomlinson & Masuhara, 2004). To successfully effect the users, materials can achieve impact through: novelty (e.g. using beautiful illustration or interesting topics), variety (e.g. including text from different types of sources), attractive presentation (e.g. incorporating colorful photographs), appealing content (e.g. providing topics of interest to the target learners or something new to them), and achievable challenge (designing tasks challenging learners to think) (Tomlinson, 2011).

Moreover, the materials should offer coherent content which can be achieved by using Six-T's approach to language and content instruction as suggested by Stoller and Grabe (1997). The six components enable the establishment of coherence which is "an effective means to promote students' language, content, and strategies learning" (Stoller & Grabe, 2017, p. 54). Themes are the central ideas of unit organization; topics explore aspects of theme in depth; texts serve as a vehicle for teaching language structure and vocabulary; tasks are the instructional activities used for content, language, and strategies instruction; and transitions and threads create additional linkage across themes.

Practically, when the materials developers implement Six-T's approach to create meaningful and coherent content of the instructional materials, they involve with the fluid and interactive procedure divided in several steps. In each step, it is important for them to take into consideration that certain context imposes its own constraints, and opportunity for variation and adaptation. In Thailand, there have been attempts to use Six-T's approach as parts of the development of instructional model or instructional materials. For example, in Chetsadanuwat's (2012) study, Six-T's approach was applied to develop the self-instructional materials (SIMS) to enhance English listening skills for student nurses or Ritthikuksithichai's (2011) study in which, Six-T's approach was employed to select contents for undergraduate engineering students to enhance English reading. Although the findings of both studies revealed the effectiveness of the developed materials and the satisfaction of students at a

good level, researchers encountered some problems during the production process. Chetsadanuwat's problem was the unclear voice of the CD which was solved by recording with another sound recorder. Ritthikuksithichai's problems were the lack of criteria for reading passages selection and the clear objectives and instruction of tasks. These problems were solved by revising and clearly stating them in the instructional model.

Research Methodology

1. Population and Samples

The population of the study consisted of 153 Buddhist student monks at the Education Department of Wat Phra Dhammakaya in academic year 2017, 12 English teachers, and 10 course administrators. The sampling methods were used in 2 stages: 1) in the needs analysis stage, a stratified sampling was used to obtain 138 student monks (36 Year1, 39 Year2, 34 Year3, and 29 Year4) and a purposive sampling was used to obtain 6 English teachers and 10 course administrators who met the criteria to complete the needs analysis questionnaires. The criteria were participants should have more than 2 years of work experience in teaching or arranging courses for student monks and were available to participate. 2) in the content-based reading materials implementation stage, a purposive sampling was used to selected 42 Year 2 student monks and 3 English teachers. They were purposefully selected because student monks had to attend English reading classes where teachers were assigned by the management to use the newly developed content-based materials in their classes.

2. Research Instruments

The present study included three research instruments. First, the semi-structured interview was conducted with 3 purposefully selected stakeholders including 1 student monk who was the student head, 1 English teacher who was responsible for reading class, and 1 course administrator who was the key person of English course operations. Second, the needs analysis questionnaires were designed for 3 groups of respondents: student monks, English teachers, and course administrators. They consisted of 4 sessions including 1) directions and objective, 2) respondents' personal information, 3) preferred activities, task types, and personal preference, and 4) preferred reading topics. Third, the evaluation questionnaires consisting of whilst-use evaluation questionnaires and post-use evaluation questionnaires were designed for 2 groups of respondents: student monks and English teachers to investigate their attitude towards the quality of the developed English content-based materials during and after the implementation. After the development, both of the needs analysis questionnaires and evaluation questionnaires were

validated by 3 experts to test the content validity using the Item-Objective Congruence Index (IOC). After the revision, the needs analysis questionnaires were piloted with 3 student monks, 1 English teacher, and 1 course administrator, and the evaluation questionnaires were piloted with 6 student monks and 1 English teacher who shared similar characteristic with the participants of the main study.

3. Research Procedures

Six stages of conducting the research are illustrated as research procedures in Table 1.

Table 1. Research procedures

Stages of Procedures	Steps to Be Applied
Stage 1: Identification of needs of materials or problems to be solved by the creation of the materials:	1. Interviewing stakeholders and designing needs analysis questionnaires
Stage 2: Exploration the needs or problems by identifying language, functions, skills that should be included in the developed materials:	2. Conducting document study, literature review, and theory review
Stage 3: Contextual realization by examining and selecting ideas, contents, or texts that provide familiarity and appropriateness to the learners' context:	3.1 Establishing THEMES 3.2 Formulating TOPICS 3.3 Choosing TEXTS 3.4 Sequencing the content
Stage 4: Pedagogical realization by examining and selecting meaningful exercises and activities with clear explanation:	4.1 Designing TASKS 4.2 Determining TRANSITIONS 4.3 Selecting possible THREADS
Stage 5: Materials production concerning the physical and academic aspects of the developed materials:	5. Physically designing the content-based reading materials based on the results of the needs questionnaires
Stage 6: Evaluation of the effectiveness of the developed materials:	6. Implementing the developed content-based reading materials and administering evaluation questionnaires

4. Data Analysis

In the initial step of this study, content analysis was used to analyze data collected from the semi-structured interview to identify problems to be solved by the creation of developed materials. In later steps, a descriptive statistical analysis was used to calculate basic statistic values such as frequency, percentage, mean, and standard deviation of the collected data. Frequency and percentage were used to analyze data of the fourth session of the needs analysis questionnaires. Mean and standard deviation were used to analyze data of the third session of the needs analysis questionnaires and those

of evaluation questionnaires in which respondents were asked to rate their satisfaction on the four-point Likert scales. The following evaluation criteria were used to interpret their level of satisfaction: 3.50-4.0 means strongly agree; 2.50-3.49 means agree; 1.50-2.49 means disagree; and 1.00-1.49 means strongly disagree.

Results

Results of research question1

The first research question investigates how content-based reading materials are developed for Buddhist student monks. To address this research question, 6 stages of framework of materials development of Tomlinson (2011) were integrated with Six-T's approach of Stoller and Grabe (2017) as follows.

Stage 1: Identification of needs of materials or problems to be solved by the creation of the materials.

Data collected from semi-structured interview revealed that the lack of tailor-made reading materials was the main reason for student monks' reading difficulty because the commercial instructional materials being used failed to offer meaningful content relevant to monastic life. Consequently, student monks lost interest as they could not understand texts used in real situation.

Stage 2: Exploration the needs or problems by identifying language, functions, skills that should be included in the developed materials.

After exploring problems and needs, the researcher conducted document study, literature review, and theory review mainly on four areas: the framework of materials development, Six-T's approach, cognitive reading strategies, and explicit instruction of reading strategy. The researcher identified 7 steps of instruction, 3 phases of tasks, and other language features. Then the basic structure of each unit was finalized as shown in figure 1.

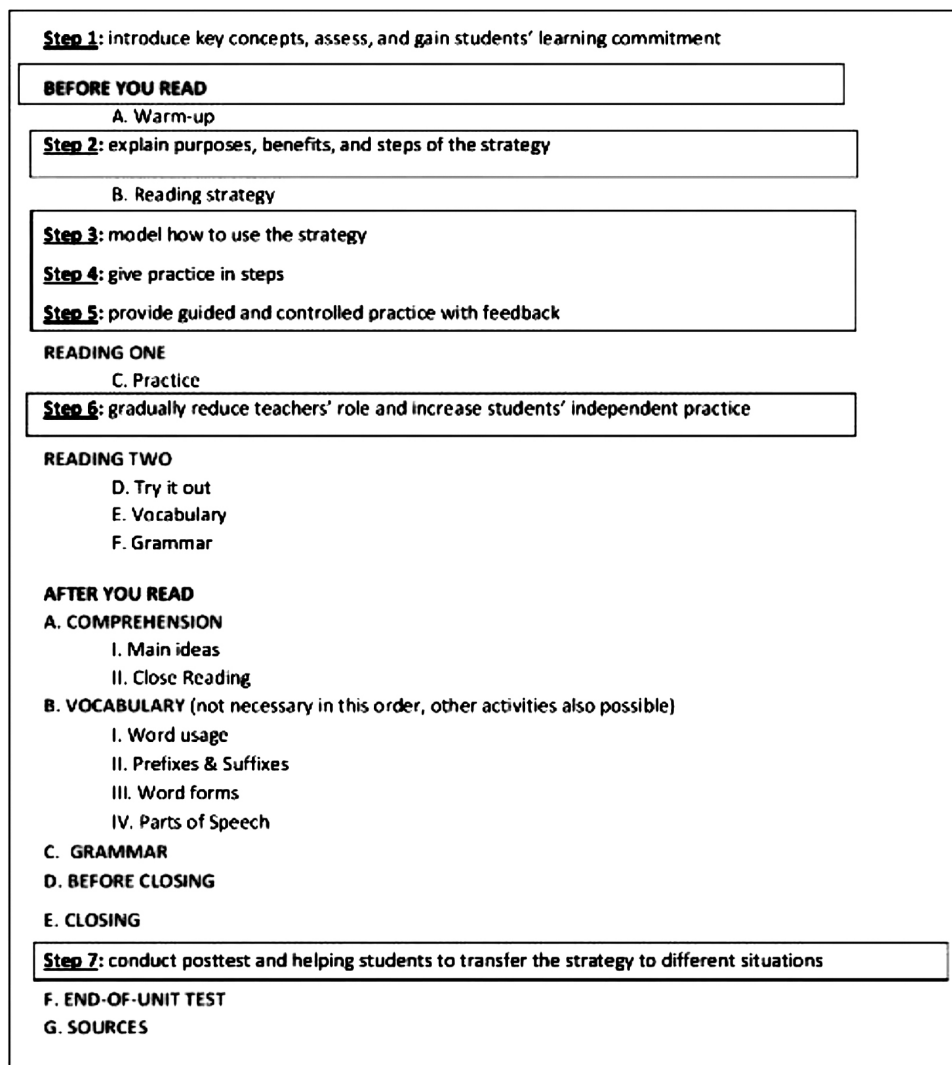


Figure 1 The basic structure of each unit

Stage 3: Contextual realization by examining and selecting ideas, contents, or texts that provide familiarity and appropriateness to the learners' context.

To construct the appropriate content, student monks' education background, religious background knowledge, English reading literacy, and learning style were taken into consideration. Furthermore, the results from previous stages have provided some critical issues from which the researcher could effectively integrate six components to establish the coherent content of the materials.

3.1 Establishing THEMES

The theme of the Triple Gem divided into 3 sub-themes of the Buddha, the Dhamma, and the

Sangha was established as the central ideas organizing 9 thematic units. Three cognitive reading strategies of Anderson (1991) were specified. They were predicting, guessing the meaning, and writing summary which student monks needed to employ before, during, and after reading, consecutively. Based on the main theme and the objective to instruct reading strategies, the researcher concluded the title as, *The Triple Gem (English Reading Materials for Building Effective Reading Strategies)*.

3.2 Formulating TOPICS

According to the results of the fourth session of the needs analysis questionnaires collected in stage 1, 9 topics received the largest percentage of selection by any groups of respondents were included as the topics of the reading passages.

3.3 Choosing TEXTS

Texts were selected from various authentic resources based on 4 criteria: sub-themes and topics, reading strategies, length (600-800 words), and readability based on Flesch reading-ease test's score (1979) (minimal level of 70.0-60.0 and at a maximum level of 50.0-30.0). Table 2 presents the summary of four criteria and types of resources of each passage.

Table 2. Criteria of passage selection and types of resources

Sub-themes	Topic	Reading Passages' Title	Reading Strategy	Length (words)	Readability	Resources
The Buddha	Life of the Lord Buddha	The First Dhamma Lecture	Pre-reading	663	59.6 (Fairly difficult)	Books
	His Previous Existences	Mahosatha Jataka: Perfecting the Virtue of Wisdom	During or Post-reading	696	63.3 (Plain English)	Book & VDO clip
	Changing People to Have the Right View	The Lord Buddha Saved the Brutal Murderer Angulimala	During or Post-reading	603	60.2 (Plain English)	Books
The Dhamma	The Basic Teachings of Buddhism	Dhammacakkappavattana Sutta	Pre-reading	671	48.9 (Difficult)	Book & Website
	The Fruits of Good Deeds	Benefits of Meditation in Buddhism	During-reading	719	41.9 (Difficult)	E-Textbook
	The Fruits of Bad Deeds	The Hereafter of a Miserly Millionaire	Post-reading	747	62.8 (Plain English)	E-Textbook
The Sangha	Monks' Duties and Responsibilities	Primary Duties and Responsibilities for Monks	During-reading	768	57.0 (Fairly difficult)	E-Book
	The Fruits of Ordination	Elementary Fruits of True Monkhood	Post-reading	696	42.3 (Difficult)	E-Textbook
	Monks in the Lord Buddha's Time	The Life of Ananda: A Disciple of the Buddha	Pre-reading	776	50.5 (Fairly difficult)	Weblog

3.4 Sequencing the content

The order of topics as shown on the needs analysis questionnaires were rearranged in logic sequence, primarily based on reading strategies the passages applicably provide and secondarily the occurrence or timing of events in the passages for easy understanding.

Besides these 9 passages serving as core-reading passages of the units called Reading Two, to enable 7 steps to explicitly instruct reading strategies, another 9 short passages called Reading One were included for teachers to model and give practice. The criteria of Reading One selection were that the passages should have sub-themes, topics, reading strategies, grammar in accordance with those of Reading Two of the same unit with the length of 100-250 words. The summary of four criteria of Reading One and Reading Two is illustrated in Table 3.

Table 3. Sub-theme, topic, length, reading strategy, and grammar of Reading One and Reading Two

Unit & Sub-theme	Topic/ Title of the Passage	Length (words)	Reading Strategy	Grammar
Unit 1: The Buddha	Life of the Lord Buddha		Predicting	Past Simple
Reading One	The Gotama Buddha's Biography	209		Tense & Past
Reading Two	The First Dhamma Lecture	663		Perfect Tense
Unit 2: The Buddha	Changing People to Have the Right View		Guessing the meaning	Relative pronouns
Reading One	The Lord Buddha Tamed the Yakka	109		
Reading Two	The Lord Buddha Saved the Brutal Murderer Angulimala	603		
Unit 3: The Buddha	His Previous Existences		Writing summary	Comparative forms (as ... as / than)
Reading One	Nimi Jataka; Perfecting the Virtue of Resolution	232		
Reading Two	Mahosatha Jataka; Perfecting the Virtue of Wisdom	696		
Unit 4: The Dhamma	The Basic Teachings of Buddhism		Predicting	Relative pronouns
Reading One	The Four Types of Lotus	244		
Reading Two	Dhammacakkappavattana Sutta	671		
Unit 5: The Dhamma	The Fruits of Good Deeds		Guessing the meaning	Adverbs
Reading One	The Story of Magha	149		
Reading Two	Benefits of Meditation in Buddhism	719		
Unit 6: The Dhamma	The Fruits of Bad Deeds		Writing summary	Past Simple Tense & Past Perfect Tense
Reading One	The Story of Those Who Suffered from Their Evil Deeds	176		
Reading Two	The Hereafter of a Miserly Millionaire	747		
Unit 7: The Sangha	Monks in the Lord Buddha's Time		Predicting	Passive voice
Reading One	The First Buddhist Monk	188		
Reading Two	The Life of Ananda: A Disciple of the Buddha	776		
Unit 8: The Sangha	Monks' Duties and Responsibilities		Guessing the meaning	Should and Must
Reading One	The Ordination	174		
Reading Two	Primary Duties and Responsibilities for Monks	768		
Unit 9: The Sangha	The Fruits of Ordination		Writing summary	Conditional sentences / If clauses
Reading One	The Fruits of Being a Monk	196		
Reading Two	Elementary Fruits of True Monkhood	696		

Stage 4: Pedagogical realization by examining and selecting meaningful exercises and activities with clear explanation.

4.1 Designing TASKS

The researcher incorporated individual work, pair work, and group work into 3 phases tasks. The objectives of tasks of each phase in detail are shown in Table 4.

Table 4. Task phases and objectives of tasks in one unit.

Task Phases	Tasks	Objectives of Tasks
Pre-reading	Before You Read	To introduce key concepts of the reading passages, and to gain student monks' learning commitment.
	Warm-up	To present discussion questions that activate student monks' prior knowledge.
	Practice	To model student monks how to use the strategy, give practice in steps, and provide guided and controlled practice with teacher's feedback.
During-reading	Try it out	To increase student monks' independent practice of how to use the reading strategy by themselves.
Post-reading	Comprehension	To help student monks understand literal and interpretive comprehension.
	Vocabulary	To develop knowledge of general English and English in Buddhism.
	Grammar	To develop knowledge of grammar use in context.
	Before Closing	To provide additional linkages across topics in a theme unit and/or across tasks within topics.
	Closing	To conclude what student monks have learned from the unit.
	End-of-Unit Test	To assess student monks' understanding of how to use the reading strategy for reading comprehension

4.2 Determining TRANSITIONS

The topical transition was used to facilitate a natural and systematic flow of content before moving to the next unit. It was included in Before Closing task, one of the post-reading tasks.

4.3 Selecting possible THREADS

Despite a good linkage across interwoven sub-themes of the Buddha, the Dhamma, and the Sangha, sub-theme coherence was strengthened through the selection of reading passages and the design of tasks. For example, the core reading of sub-theme of the Buddha, *The First Lecture*, and that of the Dhamma, *Dhammacakkappavattana Sutta*, both talked about the same thing but in different aspects. The relatedness to the sub-theme of the Sangha was created by selecting the passages *The First Buddhist Monk* focusing on the monk who listened to this first lecture. This passage selection enabled student monks to clearly understand the content linkage which was an effective means to promote their language, content, and strategies learning.

Stage 5: Materials production concerning the physical and academic aspects of the developed materials.

The results of the needs analysis questionnaires regarding the physical and academic aspects were used for the production of content-based reading materials including workbook and teachers' manual. Three groups of respondents agreed that the content-based reading materials should have enough empty space to take notes ($\bar{x} = 3.19$), enough answering space in exercise ($\bar{x} = 3.26$), and beautiful decoration ($\bar{x} = 3.27$), and strongly agreed that the materials should have an example before doing an exercise ($\bar{x} = 3.56$) and related pictures and subtitle ($\bar{x} = 3.64$).

After the materials were developed accordingly, they were validated by 3 experts to ensure the validity for the materials using evaluation forms adapted from Chetsadanuwat's (2012) and Arwae's (2013). Then, the revision was pilot tested on 6 student monks. Two of them were the representatives of students with high, medium and low English proficiency. Finally, the final version of content-based reading materials was published and ready for implementation that lasted for 3 weeks. Each class lasted 2 hours.

Stage 6: Evaluation of the effectiveness of the developed materials.

Prior to the implementation, 3 English teachers were trained on how to use the content-based materials, steps of explicit instruction of reading strategies, and how to deal with tasks, etc.

Moreover, the whilst-use and post-use evaluation questionnaires were designed for student monks and English teachers. The results of the effectiveness are presented in the following research questions.

Results of research question 2

The second research question explores quality of the English content-based reading materials by examining the attitude of student monks. To address this research question, whilst-use evaluation questionnaire and post-use evaluation questionnaire were constructed to ask 42 student monks who were workbook users. They were divided into 3 classes. Each class learned one assigned sub-theme of 3 units: unit 1-3 for Class I, unit 4-6 for Class II, and unit 7-9 for Class III. In the second week of implementation, the whilst-use evaluation questionnaire was administered. Table 5 presents the mean score, standard deviation and interpretation of teachers as presented in the post-use evaluation questionnaire.

Table 5. The statistical results of student monks' whilst-use evaluation questionnaire.

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
1. The content				
1.1	The content is aligned to learning objectives.	3.33	0.48	agree
1.2	Each unit has clear introduction, purposes, benefits, and steps of using the reading strategy.	3.31	0.56	agree
1.3	The content is in accordance with background knowledge and experiences of the student monks.	3.48	0.59	agree
1.4	The content is culled from authentic resources.	3.43	0.70	agree
2. The organization of content				
2.1	The sequence of the units is logical.	3.29	0.64	agree
2.2	The content is divided into sections and subsections.	3.40	0.59	agree
2.3	Clear numbering.	3.50	0.55	strongly agree
2.4	There is a link between sections and units in each unit.	3.45	0.55	agree
2.5	The length of each unit is appropriate keeping in view of the theme and title.	3.62	0.49	strongly agree
3. The presentation of content				
3.1	The important points of content are highlighted for easy references.	3.29	0.67	agree
3.2	The illustrations included in the text to promote interests, comprehension, and retention of information/ knowledge.	3.36	0.62	agree
3.3	An adequate review section and exercise are included.	3.38	0.62	agree
3.4	An adequate vocabulary list or glossary is included.	3.48	0.71	agree
3.5	The grammar points presented with brief and easy examples and explanation.	3.40	0.66	agree
3.6	The sources are given for further study.	3.26	0.77	agree
4. The language use				
4.1	The language used in the materials is authentic.	3.38	0.66	agree
4.2	The language used is at the right level for the student monks' current English proficiency.	3.40	0.59	
4.3	The instructions are clear and easy to follow.	3.40	0.54	agree
4.4	The vocabulary and expression used is relevant to student monks' background knowledge and experiences.	3.43	0.67	agree
4.5	The vocabulary and expression in the texts is commonly used in the religious field.	3.64	0.53	strongly agree
5. The activities applied				
5.1	The activities incorporate individual, pair, and group work.	3.40	0.59	agree
5.2	Activities are appropriate to unit objectives and reading strategies.	3.45	0.50	agree
5.3	Activities are included in the text to promote interests, comprehension, and retention of information/ knowledge.	3.50	0.55	strongly agree
5.4	Activities help student monks to master in using reading strategies.	3.38	0.70	agree

Table 5. The statistical results of student monks' whilst-use evaluation questionnaire. (con.)

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
5.5	The activities promote the student monks to see the value of knowledge and the real use in their monastic life.	3.60	0.54	strongly agree
5.6	Model answers are provided in the exercises.	3.43	0.55	agree
6. The layout and design				
6.1	The materials are organized effectively.	3.52	0.55	strongly agree
6.2	The design of the cover page is attractive and appealing.	3.62	0.58	strongly agree
6.3	The font size of the main text, unit headings, sub-headings, captions, etc., are appropriate.	3.62	0.58	strongly agree
6.4	The page number included in the materials is clear and easy to be noticed.	3.60	0.59	strongly agree
6.5	Spacing between lines is aligned properly.	3.45	0.63	agree
6.6	Enough space is provided for writing useful information or the answers.	3.62	0.73	strongly agree
Total		3.45	0.60	agree

Table 5 reveals that student monks agreed or were satisfied ($\bar{x} = 3.45$, S.D. = 0.60) with the quality of academic and physical aspects including content (item no. 1.1-1.4), organization of content (item no. 2.1-2.5), presentation of content (item no. 3.1-3.6), language used (item no. 4.1-4.5), activities applied (item no. 5.1-5.6), and layout and design (item no. 6.1-6.6). After that, in the third week of implementation, the post-use evaluation questionnaire was administered. Table 6 presents the mean score, standard deviation and interpretation of student monks as presented in the post-use evaluation questionnaire.

Table 6. The statistical results of student monks' post-use evaluation questionnaire.

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
1.	Through these materials, my reading comprehension skill has satisfactorily improved.	3.57	0.55	strongly agree
2.	These materials help me connect new knowledge of English language to my background knowledge that I have learned in Thai	3.64	0.48	strongly agree
3.	The theme of the Triple Gem causes me to have more motivation to read because the content is relevant and meaningful to Buddhist monks' life.	3.55	0.55	strongly agree
4.	These materials help me a lot to read other English texts in religious field in the future.	3.64	0.48	strongly agree
5.	The pre-reading, during-reading, and post-reading activities make me feel more confident to use reading strategies to comprehend the texts.	3.36	0.69	agree

Table 6. The statistical results of student monks' post-use evaluation questionnaire. (con.)

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
6.	I have more confidence when reading religious textbooks, books, articles, newsletters, report, thesis , etc.	3.36	0.66	agree
7.	Before reading I know how to make prediction from available clues such as titles, headings, illustrations, keywords, etc.	3.81	0.40	strongly agree
8.	When I confront with an unfamiliar word or phrase while reading, I am able to guess its meaning from the context.	3.57	0.50	strongly agree
9.	When I come across with an unfamiliar word while reading , I am able to guess its meaning from the prefix, suffix, and root	3.38	0.70	agree
10.	After reading, I can write a summary to better understand the main idea.	3.26	0.80	agree
11.	I have learned new vocabulary commonly used in Buddhism that I did not know before.	3.62	0.54	strongly agree
12.	The examples in the grammar sections help me better learn the grammar in context.	3.43	0.59	agree
13.	The content, vocabulary, and grammar provided in these materials are useful for my future use in disseminating Buddhism.	3.69	0.47	strongly agree
14.	The content, vocabulary, and grammar are useful to further my student monks' education in internal context in the future.	3.62	0.58	strongly agree
15.	The activities in these materials encourage me to see the value of knowledge and the real use of English in my monastic life.	3.67	0.57	strongly agree
Total		3.67	0.62	strongly agree

Table 6 reveals that student monks strongly agreed or were very satisfied ($\bar{x} = 3.67$, S.D. = 0.62) with the materials' quality in terms of the effectiveness in enhancing their reading comprehension.

Results of research question 3

The third research question explores quality of the English content-based reading materials by examining the attitude of teachers. To address this research question, whilst-use evaluation questionnaire and post-use evaluation questionnaire were constructed in order to ask 3 English teachers who were the users of teachers' manual to teach English Reading classes. Class I teacher was responsible to teach unit 1-3, Class II teacher was responsible to teach unit 4-6, and Class III teacher was responsible to teach unit 7-9. In the second week of implementation, the whilst-use evaluation questionnaire was administered. Table 7 presents the mean score, standard deviation and interpretation of teachers as presented in the whilst-use evaluation questionnaire.

Table 7. The statistical results of teachers' whilst-use evaluation questionnaire.

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
1. The content				
1.1	The content is aligned to learning objectives.	4.00	0.00	strongly agree
1.2	Each unit has clear introduction, purposes, benefits, and steps of using the reading strategy.	4.00	0.00	strongly agree
1.3	The content is in accordance with background knowledge and experiences of the student monks.	4.00	0.00	strongly agree
1.4	The content is culled from authentic resources.	3.67	0.58	strongly agree
2. The organization of content				
2.1	The sequence of the units is logical.	4.00	0.00	strongly agree
2.2	The content is divided into sections and subsections.	3.67	0.58	strongly agree
2.3	Clear numbering.	3.67	0.58	strongly agree
2.4	There is a link between sections and units in each unit.	3.67	0.58	strongly agree
2.5	The length of each unit is appropriate keeping in view of the theme and title.	3.33	1.15	agree
3. The presentation of content				
3.1	The important points of content are highlighted for easy references.	3.67	0.58	strongly agree
3.2	The illustrations included in the text to promote interests, comprehension, and retention of information/ knowledge.			strongly agree
3.3	An adequate review section and exercise are included.	3.67	0.58	strongly agree
3.4	An adequate vocabulary list or glossary is included.	4.00	0.00	strongly agree
3.5	The grammar points presented with brief and easy examples and explanation.	4.00	0.00	strongly agree
3.6	The sources are given for further study.	3.67	0.58	strongly agree
4. The language use				
4.1	The language used in the materials is authentic.	3.67	0.58	strongly agree
4.2	The language used is at the right level for the student monks' current English proficiency.			strongly agree
4.3	The instructions are clear and easy to follow.	3.67	0.58	strongly agree
4.4	The vocabulary and expression used is relevant to student monks' background knowledge and experiences.	3.67	0.58	strongly agree
4.5	The vocabulary and expression in the texts is commonly used in the religious field.	4.00	0.00	strongly agree
5. The activities applied				
5.1	The activities incorporate individual, pair, and group work.	3.33	1.15	agree
5.2	Activities are appropriate to unit objectives and reading strategies.	3.67	0.58	strongly agree
5.3	Activities are included in the text to promote interests, comprehension, and retention of information/ knowledge.	3.67	0.58	strongly agree

Table 7. The statistical results of teachers' whilst-use evaluation questionnaire. (con.)

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
5.4	Activities help student monks to master in using reading strategies.	3.67	0.58	strongly agree
5.5	The activities promote the student monks to see the value of knowledge and the real use in their monastic life.	4.00	0.00	strongly agree
5.6	Model answers are provided in the exercises.	3.67	0.58	strongly agree
6. The layout and design				
6.1	The materials are organized effectively.	4.00	0.00	strongly agree
6.2	The design of the cover page is attractive and appealing.	4.00	0.00	strongly agree
6.3	The font size of the main text, unit headings, sub-headings, captions, etc., are appropriate.	3.67	0.58	strongly agree
6.4	The page number included in the materials is clear and easy to be noticed.	3.67	0.58	strongly agree
6.5	Spacing between lines is aligned properly.	3.33	1.15	agree
6.6	Enough space is provided for writing useful information or the answers.	4.00	0.00	strongly agree
7. Teachers' manual				
7.1	The teachers' manual contains the introduction of how the materials can be used to the utmost advantage.	4.00	0.00	strongly agree
7.2	The teachers' manual provides accurate and adequate answers.	4.00	0.00	strongly agree
7.3	The suggested lesson plans incorporated with the teachers' manual provide clear steps of explicit strategy instruction.	4.00	0.00	strongly agree
7.4	The time allotment for each instruction step is appropriate.	3.67	0.58	strongly agree
7.5	The teaching dialogues are adequate to cover all aspects of the content that needs to be explained.	4.00	0.00	strongly agree
7.6	The suggested lesson plans are a useful help for novice teachers.	4.00	0.00	strongly agree
7.7	The steps in the lesson plans are in accordance with the features of the materials.	4.00	0.00	strongly agree
Total		3.78	0.34	strongly agree

Table 7 reveals that English teachers strongly agreed with most items (item no.1.1-2.4, 3.1-4.5, 5.2-6.4, and 6.6-7.7) and agreed on 3 items (item no. 2.5, 5.1, and 6.5) which have the equal lowest mean ($\bar{x} = 3.33$). Overall, they strongly agreed or were very satisfied ($\bar{x} = 3.78$, S.D. = 0.34) with the quality of the English content-based reading materials in terms of academic and physical aspects including content (item no. 1.1-1.4), organization of content (item no. 2.1-2.5), presentation of content (item no. 3.1-3.6), language use (item no. 4.1-4.5), activities applied (item no. 5.1-5.6), layout and design (item no. 6.1-6.6), and teachers' manual (item no.7.1-7.7).

In the third week of implementation, the post-use evaluation questionnaire was administered. Table 8 presents the mean score, standard deviation and interpretation of teachers as presented in the post-use evaluation questionnaire.

Table 8. The statistical results of teachers' post-use evaluation questionnaire.

No.	Criteria for evaluating the developed content-based materials	\bar{x}	S.D.	Interpretation
1.	Through these materials, my student monks' reading comprehension skill has satisfactorily improved.	3.67	0.58	strongly agree
2.	These materials help my student monks connect new knowledge of English language to their background knowledge that they have learned in Thai	4.00	0.00	strongly agree
3.	The theme of the Triple Gem causes my student monks to have more motivation to read because the content is relevant and meaningful to Buddhist monks' life.	3.67	0.58	strongly agree
4.	These materials help my student monks a lot to read other English texts in religious field in the future.	3.67	0.58	strongly agree
5.	The pre-reading, during-reading, and post-reading activities make my student monks feel more confident to use reading strategies to comprehend the texts.	3.00	0.00	agree
6.	My student monks have more confidence when they have to read religious textbooks, books, articles, newsletters, report, thesis, etc.	3.33	0.58	agree
7.	Before reading my student monks know how to make prediction from available clues such as titles, headings, illustrations, keywords, etc.	4.00	0.00	strongly agree
8.	When my student monks confront with an unfamiliar word or phrase while reading, they are able to guess its meaning from the context.	3.67	0.58	strongly agree
9.	When my student monks come across with an unfamiliar word while reading, they are able to guess its meaning from the prefix, suffix, and root	3.33	1.15	agree
10.	After reading my student monks can write a summary to better understand the main idea.	2.67	0.58	agree
11.	My student monks have learned new vocabulary and phrases commonly used in Buddhism that they did not know before.	3.33	1.15	agree
12.	The examples in the grammar sections help my student monks better learn the grammar in context.	3.00	0.00	agree
13.	The content, vocabulary, and grammar provided in these materials are useful for my student monks' future use in disseminating Buddhism.	4.00	0.00	strongly agree
14.	The content, vocabulary, and grammar are useful to further my student monks' education in internal context in the future.	3.67	0.58	strongly agree
15.	The activities in these materials encourage my student monks to see the value of knowledge and the real use of English in their monastic life.	3.67	0.58	strongly agree
Total		3.51	0.46	strongly agree

Table 8 reveals that all English teachers strongly agreed or were very satisfied ($\bar{x} = 3.51$, S.D. = 0.46) with the materials' quality in terms of the effectiveness in enhancing student monks' reading comprehension. They strongly agreed with 9 items (item no.1-4, 7-8, and 13-15) and agreed on 6 items (item no.5-6 and 9-12).

Conclusion

1. In response to the research question 1: How can the English content-based reading materials be developed for Buddhist student monks?, the integration between six stages of material development framework of Tomlinson (2011) and six components (themes, topics, texts, tasks, transitions, and threads) of Six-T's approach of Stoller and Grabe (2017) could effectively produce physical and academic aspects of the English content-based reading materials.

2. In response to the research question 2: What is the quality of the English content-based reading materials based on student monks' attitude – the result of $\bar{x} = 3.45$ from the whilst-use evaluation questionnaire and $\bar{x} = 3.67$ from the post-use evaluation questionnaire indicated that student monks had a positive attitude towards the quality of the English content-based reading materials in terms of academic and physical aspects (including content, organization of content, presentation of content, language used, activities applied, and layout and design) and the effectiveness in enhancing reading comprehension. The level of satisfaction of the developed materials was at a high level.

3. In response to the research question 3: What is the quality of the English content-based reading materials based on teachers' attitude - the result of $\bar{x} = 3.78$ from the whilst-use evaluation questionnaire and $\bar{x} = 3.51$ from the post-use evaluation questionnaire indicated that English teachers had a positive attitude towards the quality of the English content-based reading materials in terms of academic and physical aspects (including content, organization of content, presentation of content, language used, activities applied, layout and design, and teachers' manual) and the effectiveness in enhancing reading comprehension. The level of satisfaction of the developed materials was at a high level.

Discussion

In view of the results reported earlier, the possible explanation for users' positive attitude is the achievement of impact of novelty, variety, attractive presentation, appealing content, and achievable goal. The materials successfully achieved these impacts through three respects namely physical content, design, and language learning that the researcher took into consideration throughout the process of production.

First, content synthesized from a variety of authentic resources such as books, textbooks, VDO clips, weblog, etc. offers diverse reading text types. Therefore, the impact through novelty and variety was successfully achieved as it can be seen that users' satisfaction of criterion of the content, item no. 1.1-1.4, on the whilst-use questionnaires, was high ($\bar{x} \geq 3.29$).

Second, physical design offers clear page and paragraph numbers, appropriate font size, enough space to write down answers and to make notes, and beautiful illustrations relevant to student monks' culture. As a result, the impact through attractive presentation and appealing content was also accomplished as users' satisfaction of three criteria of the whilst-use questionnaires was high: the organization of content, item no. 2.1-2.5, ($\bar{x} \geq 3.29$), the presentation of content, item no. 3.1-3.6, ($\bar{x} \geq 3.26$), and the layout and design, item no. 6.1-6.6, ($\bar{x} \geq 3.45$).

Lastly, language learning maximizes student monks' potential and encouraging intellectual involvement through the integration of various types of tasks in every unit such as background-knowledge stimulation, reading strategy practice, vocabulary activity, grammatical practice, comprehension practice, and transition activity between units. Furthermore, the reading passages ranging from 'plain English' to 'difficult to read' challenge student monks to deeper develop their content and linguistic knowledge with more difficult passages and use reading strategies for a range of academic reading tasks. As a consequent, the impact through achievable goal was achieved as users' satisfaction of two criteria of the whilst-use questionnaires was high: the language use, item no. 4.1-4.5, ($\bar{x} \geq 3.38$) and the activities applies, item no. 5.1-5.6, ($\bar{x} \geq 3.38$). In addition, the results of each criterion of post-used evaluation questionnaires ($\bar{x} \geq 3.26$) also indicated that the goal in enhancing reading comprehension was accomplished.

In sum, this finding supports the principles of second language acquisition relevant to the development of materials for the teaching of language proposed by Tomlinson (2011) in that when materials capture users' attention and gain interest through novelty, variety, attractive presentation, appealing content, and achievable challenge, the language acquisition process of users will gradually occur.

Despite the positive attitude of both group of users, teachers found it was challenging when using the materials with student monks with different level of English proficiency. The class time of 2 hours was insufficient to finish all seven steps of instruction. For low proficiency students, teacher spent most lesson time on modelling how to use reading strategies, explaining meaning of difficult terminology, and teaching complicated sentences. On the other hand, for high proficiency students, they needed activities that were more challenging. Hence, suggesting that dealing with students with different level of English proficiency, materials developers should provide flexible lesson plan probably by indicating optional tasks and compulsory tasks. This flexibility helps teachers prioritize tasks as well as adjust lesson plan to accommodate the students' learning rate. Low English proficiency students may take more time to figure out complicated sentence structure or to master reading comprehension strategies, whereas high English proficiency students may raise an interesting points and discussions beyond the lesson providing unexpected opportunities for language practice.

Limitation and Recommendations for Further Studies

The main limitation in this research was a small sample size. Although the number of student monks was good, that of English teachers participating was too small to possibly generalize beyond the context of this study. Hence, it is suggested that a larger sample size is required for further studies so that the findings can be more confidently generalized and transferred to other contexts. Other issues that may be worth investigating are as follows:

Firstly, the content inside the developed content-based materials was based on the needs of student monks, English teachers, and course administrators at Education Department of Wat Phra Dhammakaya. It may not be appropriate for other student monks in different contexts. Therefore, the future studies should develop content-based reading materials which are focused on other certain groups of student monks according to the context.

Secondly, a further research should include qualitative data such as interviewing with the materials users in the evaluation of the effectiveness of the developed content-based materials in order to acquire more in-depth information and triangulate with quantitative data.

Thirdly, there should be a follow-up survey of student monks, English teachers, and stakeholders' attitudes whether student monks who attended the Reading class using content-based reading materials are able to use the gained knowledge to achieve their reading purposes or not.

Lastly, there should be a reading proficiency test such as pretest and posttest to investigate the effectiveness of the English content-based reading materials in enhancing reading ability of student monks. The comparison of pretest and posttest scores could better reveal the ability improvement before and after the implementation of the materials.

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