Development of a model of Thai literature hypermedia electronic books with social media based on the reader-response theory to enhance reading comprehension of elementary school students

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Abstract

This research study aims to develop a model of Thai literature hypermedia electronic book with social media based on reader-response theory to enhance reading comprehension of elementary school students. The model was developed based on the review of literature and the experts’ interview. Then, it was tested by 20 elementary school students, followed by the approval from the experts. Data analysis indicated that there was statistical difference between pre and post test scores at .05 level of significant. The results of this study showed that the model should consist of 6 elements as detailed in the article.

Keywords: E-book; Thai literature; Social Media; Reader-response Theory; comprehension

1. Introduction

Literature is valuable to represent cultures, society and traditions in the past, but almost of people do not read it because literature is about history with ancient words that hard to understand the meaning, moreover the teaching methods are focus on memorizing vocabulary, passage or poem for examination more than reading comprehension.

In 1938, Louis Rosenblatt developed the reader-response theory for teaching literature. The theory focuses on the readers interact their experience and backgrounds with the text by questioning and discussing their ideas and
opinions with other readers through personal meaning and perspectives that lead to the development of literature skill, reflective thinking, critical thinking and communication skills. Also note taking after reading for verify and extend the knowledge and comprehension.

Reading comprehension is an important thing and it is the primary goals of reading. The related literature and studies found that most students are low in Thai reading comprehension and inattentive to read especially in long text or passage that requires much effort and tools or text to help students understand what they’re reading. Teachers do not help students to develop their reading comprehension also. When students lack of understanding reading comprehension, it will affect their reading habit.

Online learning classes have been use more and more today. The technology of online learning has been developed to support the sending and receiving message, ultimately leading to the creation of Social media. This asset to cooperation, sharing between learners, development of ideas, we can save time and we don’t need to study in class and create more interpersonal communication. Therefore, it’s appropriate to a model of Thai literature hypermedia e-book to exchange their experience with other readers.

The study found that one method to encourage people to read is interesting content, material, cover, illustrations and an innovation of reading that different from the general book or technologies to support knowledge and reading comprehension. So, it interests researchers in developing a model of Thai literature hypermedia electronic books with social media based on the reader-response theory to enhance reading comprehension of elementary school students.

2. Methodology and Analysis

The research is divided into 3 phases:

2.1 Phase 1: The development of a model of Thai literature hypermedia electronic books with social media based on the reader-response theory to enhance reading comprehension of elementary school students.

- The research instrument
  1. A draft of the model.
  2. An interview form for 5 experts in educational technology or e-book, Thai language or reading comprehension, and Thai literature or reader-responds theory.
  3. A model assessment form for 3 experts in educational technology or e-book, Thai language or reading comprehension, and Thai literature or reader-response theory.

- Research methodology and Results
  1. Researching the concepts, theories and related research in E-Book, Thai literature, social media, reader-response theory and reading comprehension for defining a framework and determine the elements of the model.
  2. Analysis and synthesis the essence and drafting the model. A draft of the model was patrolled by advisor and improved as the suggestion.
  3. Interviewing 5 experts on the draft model and revise.
  4. 3 experts assess the draft model and found that the prototype was highly possible to use for indicating.
  5. Enhance the model followed by an advice from the experts. The prototype of the model consist of 6 elements and 3 steps. The 6 elements were 1) Hypermedia 2) Social media 3) E-Book structure 4) Multimedia 5) Content and 6) Reading Strategy. The 3 steps were 1) The pre-reading phase 2) The during reading phase and 3) The post-reading phase.

2.2 Phase 2: The tryout of a model of Thai literature hypermedia electronic books with social media based on the reader-response theory to enhance reading comprehension of elementary school students.

- The research instrument
  1. An E-Book that was evaluated the quality by 5 experts.
  2. A reading comprehension parallel multiple choices for pre-test and post-test of 20 items.
  3. An observation form is divided into 4 items each item divided into 4 behavior levels, including 16...
points.

4) A student satisfaction towards studying with this model test. All questions used a 5-point Likert scale.

- Research methodology and Results
  The research methodology and results consisted of 2 parts were

  Part 1: To create research tools for experiment according to the model.
  1) Analysis content, student, learning object, E-book’s theory and the design to flowchart and E-book structure. According to the model and study lead to create an E-book and have 5 experts evaluates it. The result of the evaluation average is 4.58. After that, have 2 small groups of 3 and 9 students take the test, and improve it.
  2) Create a reading comprehension parallel multiple choices test for pre-test and post-test, each test has 30 items for assessment by 5 experts. A test was revised on the advice of experts and trials with a similar group of students, then analysis it.
  3) Create an observation form divided into 4 items each item has 4 behavior levels, including 16 points.
  4) Create student satisfaction towards the model test. All questions used a 5-point Likert scale, had 3 experts evaluate questions and content.

  Part 2: To trial the model
  1) Before trial, preparing the place, computer, program and facilities for trial
  2) 1st week, orientation the students and give them the pre-test.
  3) 2nd – 5th week, the students read the E-book
  4) 6th week, the students take the post-test and do the evaluation to see their satisfaction towards the model test.
  5) The researcher analyzed the data with statistical system. The average of a students satisfaction towards the model test is 4.75. The first three items were E-book is attractive and interesting (mean= 4.80), Students have a better understanding of the content by questioning and answering their question (mean=4.75) and last, Sticky note is an interesting tool to share an idea and taking a note to summarize what they have read (mean=4.75).

The result of the reading comprehension test and the observation score is below by the table.

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
<th>Mean x̄</th>
<th>S.D.</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>20</td>
<td>11.25</td>
<td>4.44</td>
<td>-6.71**</td>
<td>000.</td>
</tr>
<tr>
<td>Post-test</td>
<td>20</td>
<td>16.35</td>
<td>2.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .05

The results indicate that students who participated in the experimental group had reading comprehension post-test mean scores that were higher than their pre-test mean scores at the .05 level of significance.

<table>
<thead>
<tr>
<th>Observation</th>
<th>Score</th>
<th>Mean x̄</th>
<th>S.D.</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>16</td>
<td>11.40</td>
<td>1.96</td>
<td>**4.97-</td>
<td>000.</td>
</tr>
<tr>
<td>4th</td>
<td>16</td>
<td>14.10</td>
<td>1.334</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .05

The results show the observation score on the 4th week is higher than the score on the 1st week at the .05 level of significance.

2.3 Phase 3: The propose of a model of Thai literature hypermedia electronic books with social media based on the
reader-response theory to enhance reading comprehension of elementary school students.

- The research instrument
  1) A model evaluation form for 5 experts in educational technology or e-book, Thai language or reading comprehension, and Thai literature or reader-responds theory

- Research methodology and Results
  1) Assessed and qualified a model by 5 experts. The result was shown that the average is 4.76. The Elements of the model consist of 6 elements are 1) Hypermedia, 2) Social Media, 3) E-book, 4) Multimedia, 5) Content, and 6) Reading Strategy

3. Results

The results of this study consist of 6 elements which:

1) Hypermedia is internal and external link such as link into index or link to other sites through the text, pictures or buttons that appear on every page of the book; index button, dictionary button and social sticky note button.

2) Social Media is a two-way communication with a variety of mixed media. Interrelating in anytime, anywhere on the concept of Web 2.0 for exchange ideas with other readers to gain more knowledge.

3) E-book structure is the design like reading a book. The basic structure of the book consists of a cover page, table of contents, text, illustrations, reference and the name of its author. But E-book adds sound, animation, link, menu bar, turn to the next page or turn backwards.

4) Multimedia is the presentation in variety media. This innovation combines with content, pictures, animation, audio, games and other media. The principles of screen design and the appropriation of the students are necessary. This research has examined the literature that related to the multimedia principles are:

   4.1) Illustration: colorful colors, simple, clear and corresponds to the content, placed in the middle or on the left and right side of the book, illustration’s size is suite with book’s dimension.

   4.2) Font: 18-20 point, handwriting font type or round shape, font color depends on the background, the new words should be in red, present step by step if the message too long, allow students to control text bar if they want to read more, the text should not exceed 50 percent of the area of the screen, the text layout should balance with the background or illustration.

   4.3) Game: The new game or the existing game is related with the content is useable, the game can be played by single player, has an instruction, providing feedback, should not be longer than 2 minutes and show timer of the game.

   4.4) Audio, Video and Animation: Sound and pictures are clear, students can control the buttons, the image size fits to the screen, relating to the content and close to or on the experience of the students such as movies, advertisements and news.

5) Content is Thai prose or poem literature that appropriate with elementary school students and also duration for teaching.

6) Reading strategy is the techniques used to teach reading comprehension that reader-response theory for this research. The reader-response theory has 3 steps:

   6.1) The pre-reading phase: motivate the students to read the literature by game which involve the experience of students and content in literature

   6.2) The during reading phase: students read the E-book that contains text, video, audio, illustration, website, sticky note. Readers take note about impressive or confusing content, and new vocabulary in sticky note (individual).

   6.3 The post-reading phase: divided students into groups, each group has 5-6 students. Teacher assigned 2 questions in social sticky note (group) then the students ask their friends with 1 question and select 1
question to answer, so student can share their experience, knowledge to achieve a comprehension.

Appendix A. The Illustration of the proposed model
Acknowledgements

The researchers would like to thank The 90th Anniversary of Chulalongkorn University Fund (Ratchadaphiseksomphot Endowment Fund) and Chulalongkorn Conference Grant for funding this research.
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