



A Development of Instructional Model to Enhance Critical Writing Ability

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Abstract

The purposes of this research were: 1) to develop an instructional model based on reasoning approach and reflective thinking in Thai language for enhancing critical writing ability of Grade-6 students with the establishment of efficiency criterion of 80/80; and 2) to compare an ability in critical writing of the students before and after learning with the instructional model. The sample for implementing the learning management model was a group of 40 Grade-6 students in Ban Chiang Yuen school, Chiang Yuen District, Maharakham Province, in the academic year 1/2016, obtained by using a cluster random sampling technique. The research instruments were consisted of; 1) 12 lesson plans of the instructional model for 24 hours; 2) four units of learning activities for critical writing ability engagement; and 3) three items of a subjective test for assessing critical writing ability. The statistics used for analyzing data were percentage, mean and standard deviation. The t-test (Dependent and Independent samples) was used for testing hypothesis and analyzing qualitative data together with narrative presentation. The research results were revealed as follows; 1) The instructional model to enhance critical writing ability of Grade-6 students had an efficiency of 76.81/75.14, lower than the criterion establishment of 80/80; and 2) The students who learned with the developed instructional model had higher critical writing ability in Thai, at .05 of significance.

Keywords: Instructional Model, Critical Writing

Introduction

Thai language is a national identity necessary for Thais' daily life. Thai peoples should be aware while communicating with Thai language and develop language skills efficiently. Additionally, Thai people should concentrate on communicating with the language and investigating knowledge to establish Thai national unity in the future to follow the core curriculum of basic education (B.E. 2551) which has an orientation to develop students' competencies in communication and thought abilities with the standards of listening, speaking, reading and writing. The standards and core content curriculum are related to reading, writing, listening, speaking, seeing, language structure and literature (Ministry of Education, 2008, pp. 6-7, 37). Additional writing content is important for students' learning because it is an explicit approach in language communication together with knowledge, thought, feeling and other experiences of communicators. Writing is a basic ability in communicating and a process of inquiry, as well as reading that should be advised in class. A learning approach can be applied through reflective and reasoning methods to enhance students' abilities in communicating and problem solving (Billups, 2006, p. 32).

Critical writing was performed through brain storming, exploring and investigating with concentration in outlining journal writing and checking details of journals critically to revise the repeated content in order to promote cognitive skills and disposition on critical thinking (Lane-Patrice, 2013, pp. 22-30). Critical writing has key elements composed of reflective writing that concentrates on connecting a variety of knowledge to make an understanding situations or events and a valuable meaning for concerned people (Sanford, 1988, p. 653). The use of argument evidence and reasoning in writing induces readers to agree with that argument truly and



reasonably, including affirming their knowledge (Lunsford, Ruszkiewicz, and Walters, 2007, p. 8) and composition to believe in writers (Carbone, 2009, p. 16).

Critical writing can promote students' academic achievement (McLaughlin and DeVoogd, 2004, p. 135). However, the instruction for critical writing does not succeed in developing literate and attentive learners (Duncan-Andrade and Morrell, 2008, p. 84) because the approach or strategy to enhance writing ability is only an accuracy of word spelling or remedial activity performed in classroom (Nasir and Hand, 2006, p. 47). Therefore, most of scholars should help students learn more critical writing.

The organization of instruction in critical writing involves with language skills and information used to explain in writing. Thus, teachers should give a chance for the learners to express critical thinking through questioning, analyzing experience and practicing knowledge skills in accordance with students' interest (Luke and Freebody, 1997, p. 186). The transformation and use of their abilities by blending concepts in writing clearly and accepting various opinions link to critical writing and critical literacy. Critical literacy needs critical questioning to get valuable content in communicating with meaningful critics in different writings (Carbone, 2009, p. 76).

An instructional approach to enhance critical writing of learners in real practices can begin with investigation on problematic sentences and selecting keywords that were representatives of concepts through brain storming critically, followed by using inquiry with intervention in language communication to change approaches for seeking knowledge of learners (Freire, 2000, p. 206). In addition, many teachers believe that learners can learn writing to develop writing skills and critical thinking of students (Billups, 2006, p. 107).

The study of principles and theories related to critical writing consists of reasoning approach defined as the process of encouraging students to solve problems through reasoning and transforming solutions with acceptable judgement and argument (Lunsford, Ruszkiewicz, and Walters, 2007, p. 8). A reflective approach responded to learning situation can help students explain and solve problems to enhance an understanding of complex problem-solving and construct knowledge for learners successfully (Weingartner, 2008, p. 21). In addition to a concept of learning, abstract ideas composed of concerned information and experience explain the meaning of knowledge or situation while learning (Bloom, Fischer, and Orme, 2009, p. 33). Furthermore, Constructivist theory is an approach to enhance students' understanding of new knowledge through an interaction with current experiences and meaningful learning in a real situation (Carbone, 2009, p. 18).

This study synthesizes those principles and theories to create elements of an instructional model based on the approach of Joyce and Weil (2011, pp. 13-15). This model composed of six elements: 1) Principles and foundation theory, 2) Objectives of model, 3) Learning management process, 4) Social system, 5) Principles of response, communication and interaction, and 6) Supportive system, media and learning resources. The learning management process consisted of five steps: 1) Providing topics and scopes of detail, 2) Examining connection and knowledge, 3) Analyzing reasonable inference and argument, 4) Reflection for revising on writing, and 5) Concluding and evaluating on writing. The research procedure was based on Research and Development or R&D approach, consisting of current states or problematic conditions. The principles and theories aimed to design a prototype of instructional models. The designed model was presented to experts for judging and evaluating before trying it out to investigate results and develop an effective model.



The Purpose of Research

1. To develop an instructional model based on a reasoning and reflective-thinking approach to enhance critical writing ability in Thai language of Grade-6 students with the efficient 80/80 criterion
2. To compare an ability in critical writing of the students before and after learning the instructional model

The Research Method

1. The Research Population and Samples

The research population consisted of 122 Grade-6 students from three classes in Ban Chiang Yuen School, Chiang Yuen District, Mahasarakham Province, in the academic year 1/2016.

The research sample were 40 Grade-6 students in Ban Chiang Yuen School from Class 6/2, selected by a cluster random sampling technique.

2. The Research Variable

The treatment variable was an instructional model for enhancing critical writing.

The dependent variable was an ability on critical writing of the students.

3. The Research Instruments and Its Qualities

The research instruments classified in three categories:

3.1 Lesson plans: four units following 12 plans, 2 hours/plan, 24 hours in total

3.2 Assessment tools for critical writing: 12 items of a subjective test, 5 scores/item, 60 scores in total

These critical writing tests had four elements of writing competencies: 1) writing on advertising, 2) writing on opinions, 3) writing on imagination, and 4) writing on composition. The criteria and conditions of the assessment on students' critical writing provided six facets:

1. Understanding the key concept of information: Students can explain elements of content and important ideas of apparent situation by understanding them correctly and completely.

2. Analysis on facts of content: Students can analyze facts or opinions from detailed content in each situation with reasonable and trustworthy inference.

3. Correction on syntax with meaningful and motivational belief or opinion in content: Students can write an explanation to communicate the key content with understanding, writing correctly in terms of rhetoric statements with valuable and meaningful information. The writing should present the interesting and motivating key content with critical thinking.

4. Analysis on trustworthy relationship: Students can explain, classify, identify, compare and categorize the content writing with different perspectives on reasoning and argument to explain believable and trustable things. The creation of predictable things should have reliable inference with factors and conditions related to events.

5. Support with inferences and arguments in writing: Students can explain and present evidences in writing with knowledge or fact to support beliefs and ideas by presenting argument or disagreement to enhance the content detail. This should lead or induce the belief of readers and prepare a practice to perform confidence.

6. Value on belief and performance of learners: Students can write to present the content for meaningful communication with trust and acceptance, conclude correctly for appropriate performance. Writing for

advertising, imagination and composition should identify conditions by valuing the content for reasonable and trustworthy explanation.

3.3 The t-test (Dependent and Independent samples): 40 multiple choices related to critical writing, with Difficulty index or Easiness (P) at 0.36–0.61, Discriminant Index at 0.39–0.67 and Reliability at 0.82

4. Process on Research

The development of the instructional model to enhance ability on critical writing for students composed of three phases:

4.1 The First Phase: The construction of the instructional model looks for effectiveness of the model by promoting on critical writing. The model was created, based on related theories and principles. It set a prototype model presented to the advisor to be checked and revised for a correct instructional model. The model was sent to seven experts to be improved and evaluated in terms of framework and element as handbook details composed of content as follows:

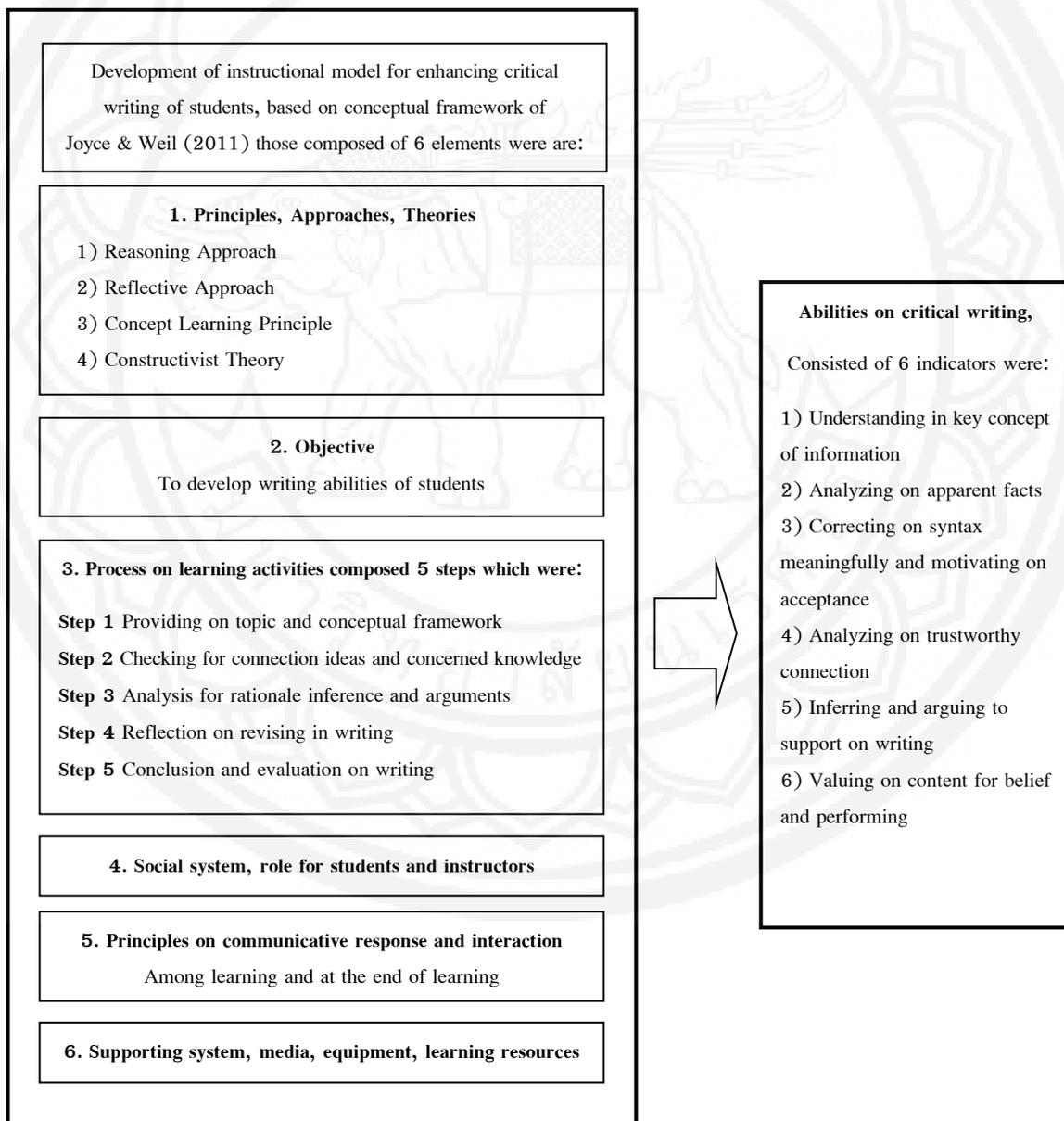


Figure 1 The designed instructional model for enhancing critical writing ability



The model was then analyzed, following the experts' feedback. It was revealed that the instructional model showed an appropriate total score at a high level as presented in Table 1 below.

Table 1 Results of evaluation on the instructional model by experts

Details on Evaluation	\bar{X}	S.D.	Appropriate Level
1. Providing of Instructional Model	4.35	0.16	High Level
2. Component of Instructional Model	4.32	0.14	High Level
3. Ideas and Fundamental Theories of Model	4.46	0.32	High Level
4. Objectives of Instructional Model	4.40	0.27	High Level
5. Process on Learning Activities of Model	4.45	0.07	High Level
6. Measurement and Evaluation	4.16	0.12	High Level
Total Score	4.37	0.21	High Level

In Table 1, it was found that the results of appropriate evaluation for the model had a total score at a high level ($\bar{X} = 4.37$, S.D. = 0.21).

4.2 The Second Phase: To try out the instructional model on enhancing students' critical writing abilities, it was piloted with 42 students in Class 6/3 at Ban Chaing Yeun School, in the first semester of the academic year 2017.

4.3 The Third Phase: To implement the instructional model, it was then tested with the group of 40 students in Class 6/2, Ban Chaing Yeun School. The model composed of four content units: 1) writing on advertising, 2) writing on opinions, 3) writing on imagination, and 4) writing on composition. The 12 lesson plans took 24 hours to complete. There were activities in each plan with learning processes as follows:

1. Suggesting steps to perform with learning activities through the instructional model for enhancing critical writing
2. Providing the pre-test on critical thinking ability to the students
3. Operating learning activities with the lesson plans and gathering data through activities to enhance critical writing with four content units
4. Providing the post-test to students after learning the instructional model
5. Analyzing data by studying statistics to conclude results of the research purposes

5. Statistics for Data Analysis

- 5.1 Fundamental statistics were percentage, mean and standard deviation.
- 5.2 Testing statistic for hypothesis test was t-test.

The Research Results

1. The results were analyzed to find out the efficiency of the instructional model to promote critical writing of the 40 students. The data was revealed as presented in Table 2.

Table 2 The efficiency of the instructional model for promoting critical writing of the students

Evaluating Lists	Full Score	\bar{X}	S.D.	Percentage
1. Process score within ability on critical writing (E_1)	60	46.78	5.31	77.96
2. Result of post - test score on critical writing (E_2)	40	30.55	3.96	76.38



In Table 2, it was revealed that the efficiency of the instructional model for enhancing critical writing (E_1/E_2) was 76.81/75.14, lower than the established criterion (80/80).

2. The data was analyzed to compare critical writing ability of students before and after learning the instructional model. The results are in Table 3 below:

Table 3 Results of the analysis on students' critical writing ability before and after learning the developed instructional model

Test Score	Full Score	\bar{x}	S.D.	df	t
Before Learning	40	14.45	5.47	39	16.60*
After Learning	40	30.55	3.96		

* Level of significance at .05

In Table 3, it was revealed that the 40 students got the pre-test mean score at 14.45, and for post-test of 30.55, within full score of 40. The result of comparison showed that the students had higher critical writing after learning with the instructional model, at .05 of significance.

Research Conclusions

1. The developed instructional model for enhancing on students' critical writing showed the efficiency (E_1/E_2) with 76.81/75.14, lower than the established criterion of 80/80.
2. The critical writing ability of students was higher after learning with the instructional model at .05 of significance.

Discussion for Research Results

1. The developed instructional model for enhancing on students' critical writing showed the efficiency (E_1/E_2) with 76.81/75.14, lower than the established criterion of 80/80. This suggests that the quality or efficiency of this instructional model could enhance learning ability and critical writing ability of students through activities apparent in the model. Although the scores effected by the model was lower than that of the established criterion, learning activities in this model could encourage the students to study with more efficiency. Here, critical writing was defined as an ability of analysis through identifying facts, opinions and arguments with reasoning and reflecting to relate believable information and knowledgeable experience of learners. Doing activities through writing advertisements, viewpoints, imaginative issues, compositions, contents or events, enhanced thinking as they created brain storming, exploration and investigation on critical knowledge of learners. Furthermore, writing should start by asking students to create a topic outline and extend the content until they led to intelligence skills and critical writing disposition (Lane-Patrice, 2013, pp. 22-30).

As learning management on critical writing involves the use of language skills and the explanation of information, students should select and use writing processes by themselves to identify topic, evaluate details in writing and create an alternate approach in developing effective writing strategies (Duncan-Andrade and Morrell, 2008, p. 88). In addition, the teacher should give students a chance to perform critical questioning and analytical experience by combining skills with their interest (Luke and Freebody, 1997, p. 186). This includes the teacher's encouragement to let students use their competencies and apply concepts clearly by giving an orientation of analytic and critical questions to get valuable details while communicating. The students' thoughts should apply meaningful wording to transfer content and knowledge in writing with various events or situations



(Carbone, 2009, p. 76). The instructional model should arrange activities and time for acting and practicing appropriately. As Carbone (2009, p. 164) mentions, the ability of critical thinking and writing was higher after learning a reflective approach. The critical writing was successful only if students perform in writing continuously. The instructional model for enhancing critical writing should be blended with several activities which listening, speaking, reading and writing skills.

2. The students' critical writing ability was higher after learning with the instructional model at the .05 level of significance. It revealed that the students who learned through the instructional model had higher critical writing ability. The learning activities were organized in five steps: 1) Identifying topics and conceptual frameworks, 2) Checking connecting ideas and related knowledge, 3) Analyzing rationale inferences and arguments, 4) Revising the writing, and 5) Concluding and evaluating on writing content. The students' competencies based on communicative writing through various approaches or strategies related to individual real-life experiences. A preparation for writing was set as a prototype of writing, revising or improving on writing, and concentrating on correction of syntax or grammar. The patterns and formats of critical writing were provided through describing and explaining stories. The ideas and methods for critical writing should relate conceptions on performance and applied knowledge, synthesized and evaluated information within a reflection and reasoning for communicating and problem solving effectively (Billups, 2006, p. 32). Such conditions and activities can stimulate critical writing based on principles of model through reasoning and reflecting. They influence an understanding of problematic situations and a way of finding out new knowledge for best performance (Weingartner, 2008, p. 21). A conception on writing can support blending and organizing various content and different perspectives to construct new related meanings or experiences through students' critical thinking and learning attitudes (Bloom, Fischer, and Orme, 2009, p. 33). Thus, learning activities with the model can affect critical writing ability of learners successfully. This is similar to the research by Lertnarongk (2017, pp. 100-109) on the development of instructional models to enhance Grade-3 students' creativity through Thai language writing. This includes the research by Sangkrai (2017, pp. 45-57) which looked at the development of instructional models to enhance Grade-6 students' critical reading ability found that the students had higher critical reading after learning with the instructional model, at the level of significance .05.

Suggestions

1. Suggestions for Using the Research Results

1.1 According to the high effective score on students' critical writing, the teacher should concentrate on students' experiences and prepare media with supportive equipment to set up learning activities appropriately and connect them with communicative skills for language learning.

1.2 Teachers or instructors can apply many kinds of content from this instructional model to support students' critical writing ability and should concentrate on an interaction between teachers and learners by focusing on their interest and potential in language learning.

2. Suggestions for the Next Research

2.1 There should be more research studies on good affections or desirable characteristics in critical writing or reading through learning management for instructional models.

2.2 There should be more research studies which apply key principles and theories to create new instructional models affecting creative reading and writing among students in primary or secondary level.



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