Promoting historical thinking for pre-service social studies teachers: A case study from Thailand

Kittisak Laksana a *

* Department of Curriculum and Instruction, Faculty of Education, Ramkhamhaeng University, Bangkok, Thailand

Abstract

The present study analyzes the development of historical thinking among undergraduate students engaged in the cause and effect instruction model and majoring in social studies at an open-admission university in Bangkok, Thailand. The study participants included 30 undergraduate students enrolled in the course entitled “Current Events for Social Studies Teachers”. The research instruments included: Four lesson plans built on the cause and effect instruction model which lasted for 16 hours; and a historical thinking assessment form. Repeated measures ANOVA was employed to analyze the data. The study results reveal that both overall and for each criterion (i.e. historical significance; continuity and change; cause and consequence; and progress and decline) of historical thinking ability progressively improved at the four measurement periods, at a statistical significance level of .05.

Keywords: Historical thinking, pre-service teachers, cause and effect instruction model, social studies

1. Introduction

1.1. Research problem

To understand current events, it is essential that learners understand the connection between the past, present, and the future. Pongsripian (2009) explained that “Humans in every society are bound up with the past; they view that significant historical events, current events, and future events are interconnected... an event we once perceived as the past were once the future and the present” (p.5). In this way, current events are the result from past events, which will also come to influence future events. Accordingly, learners must use a historical perspective in order to understand current events. Unfortunately, history teaching in Thailand has faced certain problematic issues. First,
teachers mainly adopt a lecture-based classroom approach. Second, history as subject is considered to be unimportant since learners are deemed unable to make connections between the past and current events, and they are also considered to not understand the impact of the past on current and future events. Third, teachers and learners have misconceptions about the characteristics and nature of history, in which it is perceived to be fixed and unchangeable (Laksana, 2016, p.141).

These three aforementioned issues of history teaching can be resolved by changing from a traditional history class, in which the teacher takes a major role in knowledge delivery, to one in which learners construct knowledge themselves, thereby promoting historical thinking. Several studies in history studies suggest that a ‘doing history’ instructional approach in addition to using important historical concepts helps to improve learners’ understanding and historical thinking (Martinko, 2017; Neumann, 2012; Ozmen, 2015; Wanser, 2012). History educationists elucidate that historical thinking is a creative process used by historians to interpret historical evidences and construct history. This can be achieved through important historical concepts, such as historical significance, evidence, continuity, changes, causes, consequences, historical perspectives, and ethical judgement (Seixas & Morton, 2013, p.2; Stipp, Gibson, Denos, Case, & Miles, 2017, p.1).

Historical thinking is important and can benefit learners in several ways by promoting historical understanding; increasing understanding of content and the nature of a history subject; encouraging learners’ participation in history investigation (Stipp et al., 2017, pp.4-5); dispelling learners’ credulity, enabling learners to understand complicated human behaviors and relationships in the past; and by enabling learners to reflect on current events through various perspectives (Kitson, Husbands, & Steward, 2011). This is consistent with Gardner’s (2006, p.154) concept of ‘the five minds for the future’ which is necessary for learners and people in the future. One mind type that should be promoted is the disciplined mind, which masters a particular discipline (i.e. history, mathematics, science, or arts) and a profession (i.e. an accountant, a lawyer, a physician, or an engineer). This is acquired through practice and persistence to achieve personal proficiency and be able to continuously apply and improve what has been learned. Each discipline has its own core principles which differ from other disciplines. Gardner (2006, p.22) further explained the area of history, in that a learner who has not become more disciplined only has a superficial understanding about events, or perhaps are only interested names and the dates of events. For example, when asked about the First World War, a learner may answer that the war began due to the assassination of Archduke Franz Ferdinand, the heir presumptive to the throne of Austria-Hungary, on June 28th, 1914. The given answer indicates superficial knowledge about the events. Gardner’s five minds for the future presents the benefit of discipline-based thinking, which differs from the thinking process in general. It is therefore essential that the historical thinking ability of pre-service teachers is promoted.
Concerning teaching issues in Thailand and the value of historical thinking, it is necessary to promote the historical thinking abilities of learners. To deal with the aforementioned issues, a traditional history class in which learners are receivers of knowledge must be changed to a classroom in which learners are allowed to take more active roles in the learning process. This can be achieved through learning management that encourages learners to discover answers and supporting arguments on their own, which is the cause and effect model of instruction. This model was developed by Gunter, Estes, and Schwab (Gunter, Estes, & Mintz 2007, pp. 173-178) with the intention of promoting learners’ abilities to scrutinize information, events, situations, and stories. The model involves eight steps of learning management: 1) select a topic, issue, data, or actions to be analyzed; 2) analyze the cause and justify its supporting argument; 3) analyze the effect and justify its supporting argument; 4) analyze the antecedent and justify its supporting argument; 5) analyze the consequence and justify its supporting argument; 6) make a conclusion; 7) structure the principles; and 8) evaluate learners’ performance. This model was developed on the basis of Taba’s (1967) teaching strategies which focused on learning management following the inductive approach, in which learners interact with facts until they recognize the association patterns in the facts and subsequently formulate principles by themselves. In the cause and effect model of instruction, steps 1 to 6 focus on encouraging learners to investigate, gather, organize, and comprehend data. These steps help learners understand the content of the Current Events for Social Studies Teachers course. The steps are also relevant to the instructional approach by emphasizing historical thinking.

Concerning the background of the aforementioned teaching issues, the derived research question is: “How does the cause and effect model of instruction promote historical thinking abilities?” Additionally, the study objective is to examine the promotion of historical thinking ability of students engaging in the cause and effect model of instruction. It is hypothesized that students engaged in the cause and effect model of instruction will have better historical thinking abilities.

1.2. Literature Review

Historical thinking is a form of discipline-based thinking which focuses on learners’ understanding of the use of second-order historical concepts to understand historical stories or events and develop historical understanding. These concepts include historical significance, evidence, continuity, change, cause, consequence, progress, decline, historical empathy, ethical judgement, and historical perspectives. Moreover, historical thinking is a process in which learners learn by investigating evidence, authors, and contexts, as well as validating evidence (Haydn, Stephen, Arthur, & Hunt, 2015; Lévesque, 2009; Mandell & Malone, 2007; Seixas & Morton, 2013, p.2; VanSledright, 2004, pp. 230-233).
Historical thinking is important and has several advantages. First, it promotes historical understanding as well as understanding about the nature of the historical subject. Second, it enhances learners’ roles to be more active and use historical concepts and process. Third, it encourages history learning that embraces various perspectives. These advantages are relevant to developing citizens in a democratic society (Kitson, Husbands, & Steward, 2011; Laksana, 2017, p. 145; Stipp et al., 2017, pp.4-5). History educationists suggested that instruction which emphasizes historical thinking must involve learning activities centered on the use of substantive historical concepts as a framework to investigate the past. This should be conducted through an inquiry process which entails the questioning method, identifying historical issues, using various sources, interesting issues, and evaluating learning progression (Neumann, 2012; Seixas & Morton, 2013, pp. 3, 9; Stipp et al., 2017, pp. 12-13).

Regarding the aforementioned related literature, the researcher identified the scope and components of historical thinking for this present study as comprised of four performance criteria:

1) Cause and consequence: Reflecting on past events concerning: Direct causes or a person’s actions that cause historical changes; structural causes or fundamental factors; primary causes; secondary causes; direct effects; and the impacts of historical events (Chamber, 2006; Duthie, 2012, pp.32-33; Lévesque, 2009; Seixas, 2006; Seixas, 2017; Stipp et al., 2017, p.9).

2) Continuity and change: Reflecting on the chronology of historical events, including: Constants or things resulting from the past; things that have changed or transformed from the past; aspects and degree of changes; substantive historical turning points; and the names of eras associated with stories or distinctive period features (Lévesque, 2009; Seixas, 2006; Seixas, 2017; Seixas & Morton, 2013; Stipp et al., 2017, p.8).

3) Progress and decline: Reflecting on and evaluating the conditions or artefacts considered to be advanced, progress, or valuable; the conditions or artefacts considered to be in decline, obsolete, or worthless in that period; relationship patterns between the conditions or artefacts considered to represent progress and decline in that period; comparing the conditions or artefacts considered to represent progress within a similar context; and comparing the conditions or artefacts considered to represent decline within a similar context (Lévesque, 2009; Lévesque, 2011; Seixas & Peck, 2004).

4) Historical significance: Reflecting and judging past events, issues, or stories with distinctive features or aspects considering typical situations of that period. These events or conditions are recognized or acknowledged according to their significance. Besides, they are significant historical turning points which have greatly affected large numbers of people for a long period, relate to or have profound effects on the present, relate to individual learners, and reflect the consciousness of contemporary people (Brown &

2. Method

This study employs a quasi-experimental, one-group time-series design with four measurement points.

2.1. Study population and participants

The study population included 331 undergraduate students majoring in social studies at the Faculty of Education of an open-admission university in Bangkok, Thailand. The students were enrolled in the Current Events for Social Studies Teachers course in the first semester of the 2017 academic year.

The study participants were 30 undergraduate students selected according to the frequency of their class attendance during the Current Events for Social Studies Teachers course period. The researcher employed a simple random sampling technique to assign 30 out of the 39 students who attended all 16 classes into an experimental group.

2.2. Research instruments

2.2.1. Lesson plans

The instruments used in the experiment included four lesson plans focusing on four issues: 1) the Israeli-Palestinian Conflict; 2) the Sinhalese-Tamil Conflict; 3) the insurgency in the southern region of the Philippines; and 4) the disputes in the South China Sea region. Each lesson plan was designed according to the cause and effect model of instruction and lasted for four hours, for a total of 16 hours. The lesson plans were evaluated by five experts using a 5-rating scale to assess their accuracy, appropriateness, and internal consistency. It was found that the overall accuracy, appropriateness, and internal consistency of the lesson plans were at the highest level (M = 4.94). Meanwhile, each lesson plan was also deemed to have similar results (M = 4.90, 4.95, 4.94, and 4.98, respectively).

2.2.2. Test and rubric

An 8-item essay test was designed to assess the learners’ historical thinking ability. An analytic scoring rubric was used to assess thinking ability, consisting of four criteria: Historical significance; continuity and change; cause and consequence; and progress and decline. The concrete descriptions for each level of historical thinking performance were provided for each criterion to serve as the scoring guideline. Five experts assessed the consistency between the questions and descriptions, who found an index of item-objective congruence (IOC) result of 1.0 for all items, indicating good content validity. Inter-rater
reliability was performed through the following procedure: The 8-item subjective test was administered to 30 pilot participants to assess their historical thinking ability, subsequently the test was evaluated by two raters which revealed an inter-rater correlation coefficient of .804 and a high correlation at a statistical significance level of .01.

2.3. Data Collection

This study applied a quasi-experimental one-group time series design. The study was conducted in the Current Events for Social Studies Teachers class between July and September 2017. To collect data for the learners’ historical thinking ability, the researcher administered an 8-item subjective test to the participants four times (in weeks 3, 5, 7, and 9), with one test for each lesson plan.

2.4. Data Analysis

Analysis was performed by calculating the mean scores, standard deviations, and percentages for each historical thinking criterion and overall from of historical thinking ability obtained from the four tests. The tests were conducted after the students engaged in the cause and effect model of instruction.

To test the hypothesis, repeated measure ANOVA was conducted to analyze the development for each historical thinking criterion and overall on the basis of the four tests after the students engaged in the cause and effect model of instruction.

3. Results

The analytical results of the mean scores, standard deviations, percentages, and the development of each historical thinking criterion and overall were obtained from the four tests after the students engaged in the cause and effect model of instruction.

Test 1 The students had a low level of overall historical thinking ability, with a mean score of 1.80, with a standard deviation of 1.34. The students also had a low level of historical thinking ability in each criterion. The mean scores for the continuity and change and the cause and consequences criteria were equal and the highest compared with the other criteria, with a mean score of 2.00 and 0.64 and 0.00 standard deviation, respectively. For the historical significance and the progress and decline criteria, the mean scores were equal and the lowest, with a mean score of 1.60 and standard deviations of 0.49.

Test 2 The students had a moderate level of overall historical thinking ability, with a mean score of 2.45 and a standard deviation of 1.34. The students also had a moderate level of historical thinking ability in each criterion. For the continuity and change and the cause and consequence criteria, the mean scores were equal and the highest
compared with the other criteria, with mean scores of 2.60 and a standard deviation of 0.49. Abilities in the progress and decline criterion was the lowest with a mean score of 2.20 and a standard deviation of 0.40.

**Test 3** The students had a high level of overall historical thinking ability, with a mean score of 3.30 and standard deviation of 2.35. The students had a high level of historical thinking ability in the cause and consequences criterion with a mean score of 3.80, the highest compared to the other criteria, and a standard deviation of 0.76. Ability in the historical significance and progress and decline criteria were at a moderate level, with both having mean scores of 3.00, the lowest found, with standard deviations of 0.64.

**Test 4** The students had a high level of overall historical thinking ability, with a mean score of 3.85 and a 2.37 standard deviation. For their abilities in each criterion, the students had a very high level of historical thinking ability in the cause and consequences criterion with a mean score of 4.20, the highest of the criteria, with a standard deviation of 0.76. The abilities in the progress and decline criterion was at a high level with a mean score of 3.40, which was found to be the lowest, and a standard deviation of 0.49. The results are presented in Figure 1.

![Figure 1. Criteria development overall and for each historical thinking ability (Test 1 to Test 4).](image)
Figure 1 shows the development of the learners’ historical thinking ability criteria through the results of the four tests after engaging in the cause and effect model of instruction. Repeated measure ANOVA was used to test the hypothesis.

Analyzing the development of the learners’ historical thinking ability, both overall and in each criterion, revealed that the mean score of overall historical thinking ability differed between each time point at a statistical significance level of .05 (F = 689.012, df = 1.857, 53.864, p = .000). The paired samples t-tests showed that the mean scores of overall historical thinking ability at Tests 1, 2, 3, and 4 differed with a statistical significance level of .05. These results support the hypothesis that “Students having engaged in the cause and effect model of instruction will have a higher historical thinking ability.” The following results were found for each criterion of historical thinking: 1) The historical significance criterion mean score differed between at least two time points at a statistical significance level of .05 (F = 188.500, df = 1.667, 48.333 p = .000). When conducting the paired samples t-tests, the mean scores of the historical significance criterion at Tests 1, 2, 3, and 4 were found to differ at a statistical significance level of .05. 2) The mean score for the continuity and change criterion differed between at least two time points with a statistical significance level of .05 (F = 98.941, df = 1.417, 41.083, p = .000). The paired samples t-tests showed that the mean scores for the continuity and change criterion at Tests 1, 2, 3, and 4 differed with a statistical significance level of .05. 3) The mean score for the cause and consequences criterion differed between at least two time points with a statistical significance level of .05 (F = 130.500, df = 2.025, 58.719, p = .000). The paired samples t-tests showed that the mean scores of the cause and consequence criterion at Tests 1, 2, 3, and 4 differed with a statistical significance level of .05. 4) The mean score for the progress and decline criterion differed between at least two time points with a statistical significance level of .05 (F = 141.375, df = 1.818, 52.727, p = .000). With the paired samples t-tests, it was found that the mean scores for the progress and decline criterion at Tests 1, 2, 3, and 4 differed with a statistical significance level of .05. The results are presented in Table 1.
Table 1. Analytical results overall and for each criterion of historical thinking ability, by mean, standard deviations, and development.

<table>
<thead>
<tr>
<th>Historical Thinking Ability</th>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
<th>Test 4</th>
<th>F</th>
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<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
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<tr>
<td>1) Historical significance</td>
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<tr>
<td>Low</td>
<td>1.60 (0.49)</td>
<td>2.40 (0.49)</td>
<td>3.00 (0.64)</td>
<td>3.80 (0.76)</td>
<td>188.500*</td>
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<tr>
<td>Moderate</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.00 (0.64)</td>
<td>2.60 (0.49)</td>
<td>3.40 (0.49)</td>
<td>4.00 (0.90)</td>
<td>98.941*</td>
</tr>
<tr>
<td>2) Continuity and change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>2.00 (0.64)</td>
<td>2.60 (0.49)</td>
<td>3.80 (0.76)</td>
<td>4.20 (0.76)</td>
<td>130.500*</td>
</tr>
<tr>
<td>Moderate</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>Very high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.00 (2.35)</td>
<td>3.40 (2.37)</td>
<td>3.85 (2.37)</td>
<td>4.35 (2.37)</td>
<td>689.012*</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1.80 (1.34)</td>
<td>2.45 (1.34)</td>
<td>3.30 (2.35)</td>
<td>3.85 (2.37)</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05

Interpretation of historical thinking ability scores

<table>
<thead>
<tr>
<th>Scores</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01 – 1.00</td>
<td>Students have a very low level of historical thinking ability.</td>
</tr>
<tr>
<td>1.01 – 2.00</td>
<td>Students have a low level of historical thinking ability.</td>
</tr>
<tr>
<td>2.01 – 3.00</td>
<td>Students have a moderate level of historical thinking ability.</td>
</tr>
<tr>
<td>3.01 – 4.00</td>
<td>Students have a high level of historical thinking ability.</td>
</tr>
<tr>
<td>4.01 – 5.00</td>
<td>Students have a very high level of historical thinking ability.</td>
</tr>
</tbody>
</table>

4. Discussion and conclusion

During the study period, the students who engaged in the cause and effect model of instruction progressively improved their historical thinking, both overall and in each criterion, at a statistical significance level of .05. This improvement was found at all four test points. Such positive changes for the experimental group students resulted from steps 1–6 of the cause and effect model of instruction. Gunter, Estes, and Mintz (2007) developed the cause and effect model of instruction which entails teaching procedures that emphasize data interpretation, in accordance with Taba’s (1967) teaching strategies. The model enables learners to comprehend large amounts of study information by organizing information, in which learners investigate, compile, and then link the facts together.
The cause and effect model of instruction promotes learners’ historical thinking ability through the tasks in step 1 – 6. Step 1 involves choosing topics, issues, or information to be analyzed. This step requires learners to investigate and select information to analyze. Step 2 then concerns making inquiries about the cause and its supporting arguments. Step 3 involves inquiring about the effect and its supporting argument. Step 4 includes inquiring about the antecedent and its supporting argument. Step 5 then involves inquiring about the consequence and its supporting arguments. This step enables learners to acquire an historical thinking ability, specifically in the cause and consequences criterion. The first four steps require learners to investigate information to provide supporting arguments for the cause and effect, and they also help to organize facts and information. The process enables learners to understand the events assigned in the lessons which form the groundwork used to answer the questions in Step 6. Finally, step 6 involves inquiring to reach a conclusion. In this step, learners use the obtained information to comprehend the lessons and historical thinking ability, particularly the change and continuity, progress and decline, the historical significance criteria.

The study results indicate that the cause and effect model of instruction is suitable for promoting historical thinking abilities. The results reveal that after engaging in the cause and effect model of instruction, the experimental group of students’ historical thinking ability, both overall and for each criterion, varied across time points with a statistical significance level of .05. For the ability in each criterion, the cause and consequence criterion had the highest mean score at all four measurement points compared to the other criteria. That is because the tasks in each step encourage learners to reflect on historical events, cause and consequence involving historical figures, groups, and context. Additionally, learners are also required to categorize cause and consequence. The mean scores for the other three criteria (criteria of continuity and change, historical significance, and progress and decline) progressively increased across the four measurement points. However, both the scores and mean scores for these criteria were lower than the cause and consequence criterion. This may be because only step 6 involves learning activities that focus on these three criteria, meaning that learners have fewer opportunities to reflect on past events and provide arguments for the continuity, change, historical significance, progress, and decline criteria. It can be summarized that the cause and effect model of instruction is suitable for promoting historical thinking abilities. Moreover, it is particularly capable and suited to promoting the cause and consequence criterion of historical thinking.

The results from this study are consistent with Wanser’s (2013) study which discovered that integrating historical thinking into history teaching enhanced learners’ historical thinking abilities. Furthermore, the results indicate that the cause and effect model of instruction can be applied to promote historical thinking abilities, consistent with the approach to promote historical thinking for learners proposed by Stipp et al. (2017, pp. 12-13). It is proposed that learning activities that focus on promoting historical
thinking abilities should highlight questioning skills and historical problems, use various information sources, accept various interpretations, use history to understand the present, and teach important historical concepts. These findings are consistent with Seixas and Morton’s (2013, pp. 3, 9) model, in which learning management that emphasizes historical thinking requires the teacher to provide activities that encourage learners to apply important historical concepts as frameworks to investigate the past through an inquiry process to transform the past into a learner-constructed history. Moreover, promoting historical thinking abilities is beneficial for undergraduate students majoring in social studies. This is in line with Ozmen (2015), who discovered that students majoring in social studies considered historical thinking to be important and improves the effectiveness of history teaching. Accordingly, it can be concluded that the cause and effect model of instruction is a suitable alternative to promote learners’ historical thinking abilities.

Acknowledgements

Funding was provided by the 2017 budget from the Research and Development Institute, Ramkhamhaeng University.

References


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