

THE ACQUISITION OF CONCEPTUAL UNDERSTANDING OF HISTORICAL THINKING IN THE CONTEXT OF MULTI ETHNIC STUDENTS IN MALAYSIA

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ABSTRACT

This study related to previous studies emphasizing the importance of conceptual understanding towards the improvement of historical thinking process. It was aimed at finding out how ethnical elements influence the acquisition of students' conceptual understanding in history as well as observing the differences and the correlation between multi ethnic students' conceptual understanding level and the historical thinking aspects. This study was a survey study using instruments of tests and interviews with students based on stratified sampling taken from whole Malay Peninsula comprising four zones of North Zone (21.9%), South Zone (22.1%), Central Zone (34.0%) and East Zone (22.0%). The rating scale for conceptual understanding and historical thinking was excellent, good, fair, and poor. The test items used within the test were based on the curriculum of history for Sekolah Menengah Tingkatan Empat (Form Four of Secondary School) including early civilization, South East civilization, islamic civilization and european civilization. Theories from experts were considered in the composition of test items and in order to ensure the reliability of the result. Interviews were also conducted to get teachers' response on the teaching of conceptual understanding and historical thinking. Six teachers were chosen for the interview. the data shows that students' conceptual understanding level was fair in general (mean=3.07, s.p = 1.103) where the historical thinking was poor (mean = 1.94, s.p = 0.834). Students' conceptual understanding level will affect their thinking ability and analysis towards the subject matter. Malay students were different significantly in conceptual understanding and history thinking from the Chinese and Indian ones. The clarity of instruction showed a high correlation with conceptual understanding while learning activites showed a high correlation with historical thinking.

Key Word: education, conceptual understanding, historical thinking, ethnic, Malaysia

Introduction

This journal will discuss teaching-learning situation in the context of the acquisition of conceptual understanding in the subject matter pertaining to the World Civilization namely: (1) Early Civilization, (2) South East Asia Civilization,

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(3) Islamic Civilization, and (4) European civilization as well as the implication of the acquisition towards students' way of thinking and analysis towards history in accordance with the ethnical elements. Plurality in Malaysia in terms of ethnic, life and culture, sometimes influence one's way of thinking. Stavenhagen (1985) states that ethnique groups have their own culture that influence how the people think and see a problem. In Malaysian educational context, plurality is the main characteristics of instruction within classroom. History teachers should know well students' ability level in understanding history before they encourage the students' thinking.

The conceptual understanding issue was chosen in this study since most of research in history teaching show teachers' failure in providing space and chance for students that may allow them to understand and think of what they learn, as the result of teacher-oriented teaching (Khoo Kay Kim, 1995); while the establishment of historical concept and how to foster thinking skill is basically the most important element in providing an interesting and condusive atmosphere based on the students' ability.

Besides, there is also an issue of teachers' weaknesses in playing their role as little historians refering to their ability in understanding curriculum and teaching history that often relies on text books. This issue has been explained by Aini Hassan (1999) and Balakrishnan (2002), who often find teachers reading text books while teaching and rely on the books without any efforts to develop the existing concepts and to lead the students' thinking process.

As the status of the subject has been set up as a main subject in Kurikulum Bersepadu Sekolah Menengah (Secondary School Curriculum) with the main goal of giving students clear instruction towards national and international development (Abdul Rahim Ahmad, 1985), therefore, main concepts pertaining to idealism, human acts, implication of events and the actors involved should be mastered by students before idea development generated through the analysis of historical text and sources.

Plurality in school influences the way students understand historical sources, since the subject matter learned at the Form Four can be classified into four main categories (1) universal centric involving world and early human civilization, (2) asian centric involving topics of asia and south east asia civilization, (3) Islamic centric refered to the history of the emergence of Mecca civilization to the emergence the glorious Islamic empire, and (4) Europe centric involving the emergence of Renaissance, emergent ideas, and the revolution era which brought Europe to its glory. It can be described as follow:

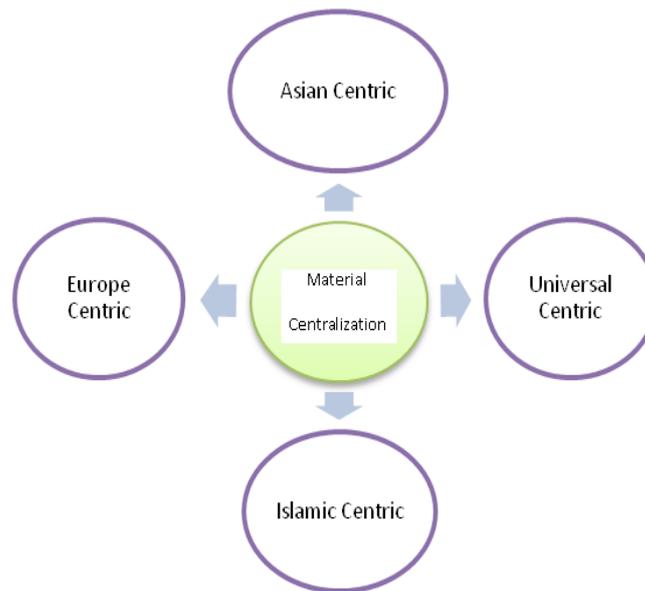


Chart 2.1 : History Main Subject

Theoretically, students will be easy to understand the historical concepts pertaining to their existing knowledge and culture since the terms and concepts relate to their life and they know them well. For example, Indian students will be easy to understand concepts about Indian civilization or Hindu – Buddha and all pertains to the topics, Chinese students will also be easy to recall and store goals pertaining to Chinese emperor as well as the civilization, where muslim Malay students will be easy to understand Islamic civilization history as well as the facts pertaining to the topic. Students’ background knowledge clearly affects students’ understanding towards subject matter, but teachers take the issue for granted. The study from Lomas (2005) and Mohd Yusuf Ahmad (2004) show that there is any correlation between students’ understanding towards the concept of subject matter and their background knowledge.

Theoretical Foundation

Many studies show that teaching learning program in fact should use various teaching methods. Cullingford (1995), finds that most teachers use the same technique, through chalk and talk relying on text books and few strategies limited to discussion, observation, and work in group, whereas students’ plurality was taken for granted in the teaching-learning. Teaching conceptual understanding to multi ethnic students requires plurality approach connecting the students’ background knowledge that may involves them in the learning activity.

Galton (1989) states that it is common that teachers’ instruction in delivering the conceptual knowledge relates to chalk and talk and take other media for granted. Garrey & Krug (1977), however, suggest that the use of media such

as audio visual may ease the students in comprehending conceptual knowledge and may also stimulate thinking through visualization towards what is delivered. While Luff & Harris (2004) emphasize the teachers' role in transferring concepts from the easier to the harder one as well as the thinking process pertaining to the subject.

Borich (1988) states that history teachers should not only know names, story, or incident, but also understand historical phenomena to deliver comprehensively. Anderson (1989) and Buchman (1984) state that deep understanding involves not only facts, but also historical concept and efforts in thinking in historical point of view. teachers' acts are not only limited to delivering facts, teachers may also talk with students on the subject matter from diversified perspective according to students' thinking level and knowledge. Shullman (1987) proposes the interesting part on this is as follow:

“need not only understand that something is so, the teacher must futher understand why it is so, on what grounds its warrant can be asserted and under what circumstances our beliefs in its justification can be weakened and even denied”.

History comprises many abstract ideas as well as hard to understand concepts. These concepts are very important in designing students' thinking ability and fostering students' intellectuality (Abd Rahim, 1985). History education can play a role as a national education medium if it is used effectively and responsibly (Hazri, 2003). conceptual understanding towards history refers to the characteristics of comprehension as what has been delivered by Pusat Perkembangan kurikulum or Curriculum Development Center (PPK, 1990), Zainal Abidin Wahid (1973), and Napsiah Mahfodz (1983) that can be comprised into five categories as follows:

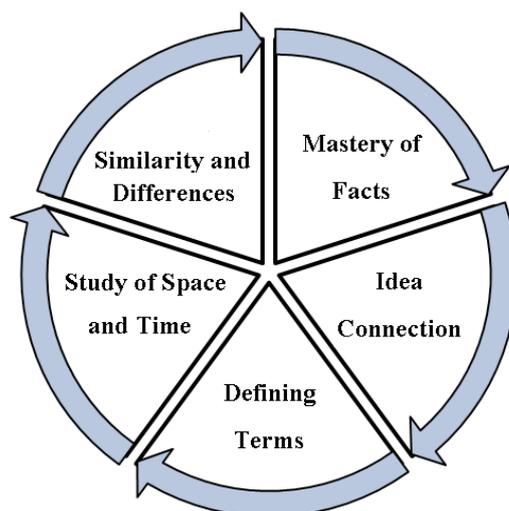


Chart 2.2 Conceptual Understanding

The historical facts, according to Steele (1976) and Formwalt (2002) comprise the following aspects: (1) story, (2) names, (3) terms, (4) events, (5) principles, (6) issues, and (7) essential ideas.

Conceptual understanding pertaining to historical events or actors will be more clearly described using visual media or ICT since students may be taken to historical era or to understand historical lesson closely through pictures, map, object or artefact. Pertaining to this issue, as to ease the students to understand the subject, the test items were composed in visual media as of picture, chart, map or cartoon. The history test was planned to examine students' ability in studying evidents, understanding and making inference based on the subject matter as well as students' ability in using all historical events they studied to be listed chronologically, making analogy and analyzing the cause and effect of the events (acts).

Students' ability in describing chronological framework is very important to the understanding of causes and effects of an event as well as to the thinking process (Abd Rahim Ahmad, 1985). there are many dimensions of time concept in history. Studies on the issue, however, often focus on one or two elements of the concept, since they are complex enough and hard to combine (Haydin, Arthur & Hunt, 1997).

The study from Haminah Suhaibo (2007) on the students' conceptual understanding towards patriotism shows that respondents have no problems in the conceptual mastery. Based on the examination towards 287 students, there were three categories of students: 141 students (49.1%) had no problems in understanding patriotism, 99 students (34.5%) in the fair level, where 47 students (16.3%) were poor in the concept. Norazamah (2009) had also ever made a similar study towards diverse students' ability in memorizing and mastering the goals of history of Form Four. The result is as follow:

Table 2.1 Mastery Ability on History of Form Four based on Ethnical Group

subject matter	Malay N= 130		Chinese N=70		Indian N=56		Total 256
	M	F	M	F	M	F	
World Civilization	63	67	30	40	16	40	
• Good	13	20	10	12	6	20	81
• Fair	38	30	10	14	6	14	85
• Poor	12	17	10	14	4	6	63
South East Asia Civilization							
• Good	23	32	16	15	10	15	111
• Fair	30	28	10	12	3	15	98
• Poor	10	7	4	13	3	10	47
Islamic Civilization							
• Good	25	30	6	8	6	10	85
• Fair	30	25	16	20	6	17	114
• Poor	8	12	8	12	4	13	57

European Civilization							
• Good	20	18	17	14	6	10	85
• Fair	30	32	10	16	5	10	103
• Poor	13	17	3	10	4	20	67

The above table supports the statements on the influence of students' background towards how they understand the subject material. The non Muslim students' comprehension level was lower than non Muslim ones. the study on conceptual understanding had also been conducted by Hamzan Omar (1999) which focused on the conceptual understanding towards civilization and revolution in the history for Form Four and grouped students into three classifications of good, fair, and poor using the understanding level of Martin Boot of *surface*, *concrete* and *accurately*. the study shows that achievement and process influence students' understanding.

History curriculum should be used to build Malaysia that can understand its development and multicultural society, as well as other countries', either internationally or regionally (Kementrian Pelajaran Malaysia / the Malaysian Ministry of Education, 1990). History study has an intrinsic value as the body of knowledge comprising the following components: (1) interpretation and explanation: the role of historical events in understanding acts and aspiration, (2) guidelines: the role of history as guidelines towards life and civilization, (3) inspiration, the role of history where it gives knowledge and thought that may lead to the improvement (4) group awareness: the role of history as to create the national awareness as it relates to cognitive domain comprising: (1) the use of mental process (basic thinking) and (2) development of mental act (deep thinking). Pertaining to the elements of understanding and historical thinking, Hassan Harris (1993) asserts:

“ At any level, history education gives a chance to students to use what they learn in the context of real life, in the condition that the students should understand and think.”

Concern on the issue of historical thinking, Wan Azezi (2006) suggests that historical thinking is a cognitive process that allow students to study more complex and more abstract ideas with guidance from teachers while take ethnical background for granted. Thinking is mental activity and it is through this activity that knowledge may be gained through elicitation. If thinking concept is related to historical thinking, the thinking will involve a deep understanding process and continuous elicitation process if it interacts with historical sources.

California State of Education Department (1988) lists historical thinking ability to include: (1) chronological thinking, (2) historical understanding, (3) historical interpretation, (4) historical investigation and (5) decision making based on historical consideration. in the same vein, Pusat Perkembangan Kurikulum

(2002) establishes five elements of historical thinking comprising : (1) the study of causes, (2) making interpretation, (3) finding evidence, (4) concluding and (5) creating some imagination and rationalization. The historical thinking model has been proposed as guidelines in developing thinking. Look at the following chart:

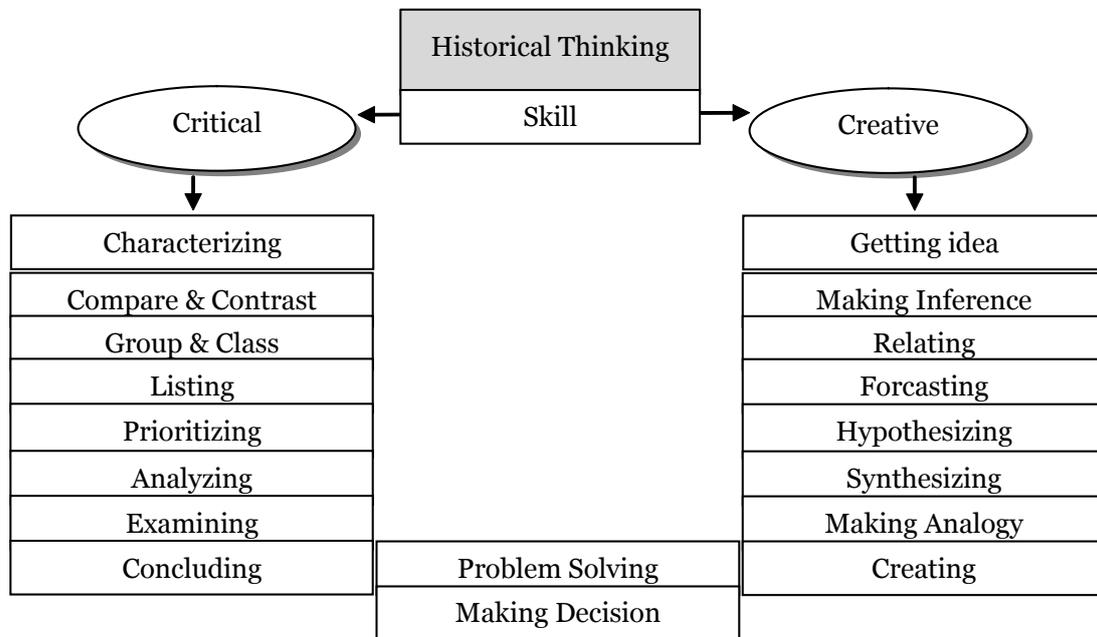


Chart 2.3 PPK Historical Thinking Model

History teachers should choose and plan the materials to deliver before the instruction. The planning of material should consider the following aspects:

1. it should be in accordance with the instructional objective
2. it should always be planned to relate with the present time
3. it should be relevant with students' background knowledge and experience
4. the lesson organization should reflects sequence and contiguity
5. the way teachers deliver the material should be understandable using appropriate language

Aims of The Study

This study was aimed to test students' understanding and thinking in accordance with ethnical elements based on the characteristics of conceptual understanding and historical thinking, to see the understanding level, and it's correlation to the historical thinking as well as to see the differences between the two elements based on ethnical matters.

The objectives of the study were to achieve through this study were: (1) knowing the students' conceptual understanding levels in accordance with ethnical

elements, (2) knowing students' historical thinking in accordance with ethnical elements, (3) knowing the correlation between conceptual understanding and the historical thinking, (5) knowing the problems faced by teachers in teaching conceptual understanding as well as fostering historical thinking

Research Methodology

This study involved students in Malaysia Peninsula which were classified into four zones of North Zone (N= 219/ 21.9%), Central Zone (N=340/ 34.0%), South Zone (N=221/ 22.1%), and East Zone (N=220/ 22.0%). The ethnical composition of the zones was as follow:

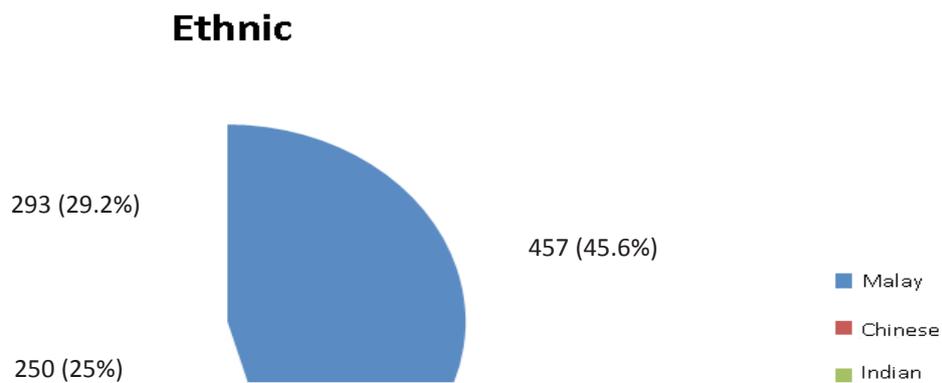


Chart 2.4 the Composition of Ethnic Respondent

This study was a survey study to understand the understanding and historical thinking levels as well as the differences within them in accordance with ethnical elements and the correlation among the two elements. Accordingly, the study used mean, ANOVA and correlation analysis. the instrument used within this study was conceptual understanding and historical thinking test which was composed in accordance with the theories from many experts in historical study and was planned to include four main materials: (1) World Civilization (2) South East Asia Civilization (3) Islamic Civilization and (4) European Civilization . The test scale was based on SPM scale which was then developed into 5 likert scale of: (1) excellent (= 5), (2) good (= 4), (3) satisfactory (= 3), (4) fair (= 2) dan (5) poor (= 1). The problems of the study were formulated as follows:

1. What is the students' historical conceptual and thinking level?
2. Are there any significant differences between conceptual understanding and historical thinking among the multiethnic students?
3. Is there any significant correlation between the clarity of teaching and the instructional activities, and the conceptual understanding and historical thinking, in accordance with ethnical elements?
4. What problems do the teachers face in teaching the conceptual understanding and historical thinking?

Result of the Study

1. What is the students' historical conceptual and thinking level?

The following table shows the analysis result of mean and standard deviation based on ethnical elements

**Table 2.2 Students' Conceptual Understanding Level
in accordance with Ethnic Group**

Ethnic Group	N	Mean	Standard Deviation
Malay	457	4.86	13.549
Chinese	293	3.67	13.233
Indian	250	3.54	12.818

The above table shows that there are mean significant differences in multi ethnic students' conceptual understanding. in general, the students' conceptual understanding level was high at the score of 4.02; however, in terms of ethnic groups, the conceptual understanding of Chinese and Indian students was satisfactory. The understanding level of each ethnic based on language is as follow:

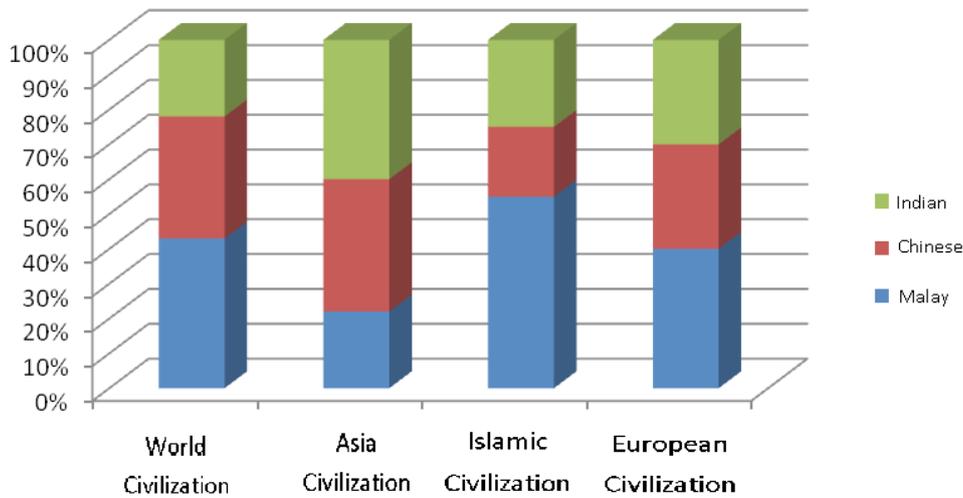


Chart 2.5 Historical Concept Understanding Level of each Ethnic Group

The above chart shows the tendency of students' conceptual understanding. It is known that Malay students had a high tendency to the study of Islamic civilization, world civilization and European civilization; however, the Chinese showed a high tendency towards the world and Asia civilization. Indian students, however, showed mastery on historical concepts of Asia and European civilization.

The analysis towards historical thinking comprising five construcs in general was low resulted from the teachers' inability to implement activities in

accordance with historical thinking and their inadequate exploration towards the thinking elements within history study.

2. are there any significant differences between conceptual understanding and historical thinking among the multiethnic students?

ANOVA test was used to find the differences within conceptual understanding and the historical thinking within multi ethnic students.

table 2.3 ANOVA test of conceptual understanding based on ethnic groups

Conceptual Understanding	Sum of Square	Degree of Freedom	Mean Squared Deviation	F	sig
Inter group	3636.878	2	1818.439	10.315	0.000
Intra group	175760.953	997	176.290		
Total	179397.831	999			

Pos Hoc Turkey Test on the differences on historical concept shows differences between Malay and Chinese students with $p = 0.002 < 0.05$ and between Malay and India with $p = 0.000 < 0.05$, and no differences between Chinese and Indian with $p = 0.792 > 0.05$.

Table 2.4 ANOVA test of historical thinking based on ethnical group

Historical Thinking	Sum of Square	Degree of Freedom	Mean Squared Deviation	F	sig
Inter Group	2268.394	2	1134.197	6.599	0.001
Intra Group	171363.506	997	171.879		
Total	173631.900	999			

ANOVA was used to explain the differences within historical thinking based on historical group. Based on table 4.56, there were significant differences of historical thinking among ethnic groups with $F = 6.599$ and $sig = 0.001 < 0.05$. The null hypothesis (H_0) was rejected. it reflects the differences of historical thinking among Malay, Chinese, and Indian students.

3. Is there any significant correlation between the clarity of teaching and the instructional activities, and the conceptual understanding and historical thinking in accordance with ethnical elements?

Table 2.5 correlation between historical teaching and cognitive skill

Cognitive Skill Construct	Instructional Clarity	r
Conceptual Understanding	0.039	0.510
Historical Thinking	0.092	0.020
Total		0.265

Table 2.5 shows correlation between instructional clarity and cognitive skill. In general, it shows a low correlation; however, narrowly, there was a tight correlation between conceptual understanding and each cognitive skill construct. It means that it affects students' understanding. In other words, the clearer the instruction, the higher conceptual understanding will be. However, there was no correlation between the historical thinking and each construct. It reflects a low implementation of historical thinking in history education.

Table 2.6 correlation between history teaching activities and cognitive skill construct

Cognitive Skill Construct	Teaching Activities	r
Conceptual Understanding	0.039	0.622
Historical Thinking	0.092	0.230
Total		0.426

Table 2.6 shows a satisfactory correlation between teaching activities and the cognitive skill construct with $r = 0.426$. In the terms of construct, it can be seen that there was a high correlation between the teaching-learning activities and the conceptual understanding with $r = 0.622$ where the historical thinking shows a low correlation with $r = 0.230$.

4. What problems did the teachers face in teaching the conceptual understanding and historical thinking?

The interview questions were as follows:

- a. Does the problem emerge when the teacher explain historical concept?
- b. How the teachers build the thinking process through the subject material?
- c. What are teaching principles and materials the teachers use as to ease the conceptual understanding and improve the students' thinking skill?

The interviews with teachers showed the problems they faced during the instruction were: (1) the students did not have background knowledge on the implemented concept (2) the students needed much more time to acquire the historical conceptual understanding (3) the students could not see the correlation between the historical concepts they learned with the recent issues (4) the students were failed to remember and understand the concepts when they were tested by the teachers, either spoken or written.

The second problems related to the way teachers conduct the thinking skill made the researcher to suggest:

- a. To relate the subject materials with the current issues
- b. To use visual media as induction set media as to stimulate the students' thinking process
- c. To use some questions in teaching
- d. To ask students to come forward and to tell them to give their view on a problem

- e. To ask students to find the differences or similarities and put them into a table
- f. To use a documentary or movie and ask the students to review the movie and explain the implication
- g. To provide activities that allow students to think such as delivering articles to be read and summary, making a quiz, giving some crossword, asking them to analyze map, and making a group discussion or filling a worksheet.

The third problem pertaining to the principles and materials used by the teachers to build conceptual understanding and historical thinking can be explained as in the following chart:

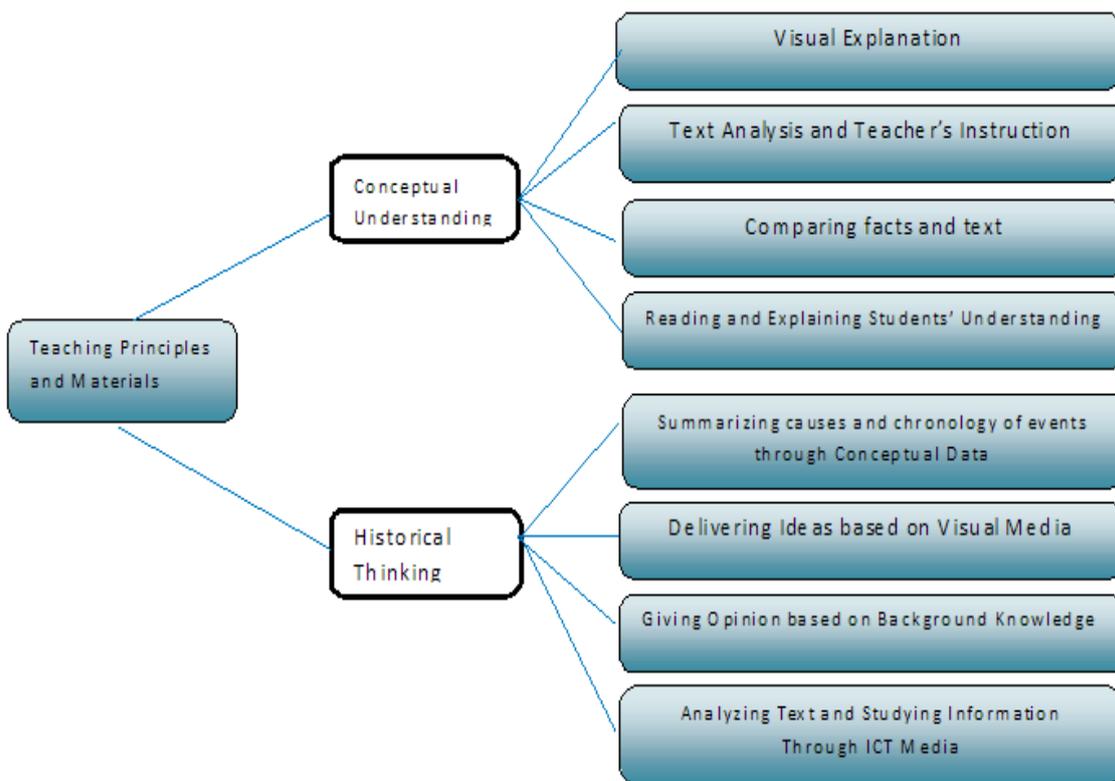


Chart 2.6 teaching principles and materials on understanding and historical thinking

Conclusion

Teachers are important agents, who can implement the conceptual understanding and generate the historical thinking process since teachers are skilled forces in history pedagogy, understand the students' background and have skills in implementing various theories and materials into an instruction

that may succeed the relating process. This study had found four main sources for history at Form Four that may become the principles of historical concepts and thinking: (1) World Civilization (2) South East Asia Civilization (3) Islamic Civilization and (4) European Civilization. The way teachers present the material will result in how far the material accepted and understood by the students. Atan Long (1984) sees that the most important task for a teacher is to do the teaching process and pedagogy that may allow learning to happen in accordance with goals and may reflect a qualified and meaningful treatment. In such educational context, teachers are considered as professional leaders. It is in line with what has been said by Dickinson (1992) that the best teachers are those who have a great knowledge, skilful and able to do their task as teachers.

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