



LECTURERS' PERCEPTIONS ABOUT EMPLOYING CRITICAL THINKING IN EDUCATING GEOGRAPHY PEDAGOGY STUDENTS AT CAN THO UNIVERSITY, VIETNAM

Trinh Chi Tham

School of Education, Can Tho University, Vietnam

ARTICLE INFO

Received date: 13/08/2015

Accepted date: 26/11/2015

KEYWORDS

Critical thinking, geography, geography education, teaching geography, higher education, lecturers' perceptions, Cantho University

ABSTRACT

This study was conducted by interviewing seven lecturers about their perceptions of employing critical thinking in educating geography pedagogy students at Cantho University (CTU), Vietnam. The study findings showed that the participants had very positive perceptions about employing critical thinking in educating the geography pedagogy students at CTU and these perceptions related to culture and tradition, teaching and learning habits, the student ability of solving problem, the interaction between the lecturers and students and amongst the students, the collaboration among the students, the teacher preparation and supports, and the university/school facilities. In addition, the results of this study have also reported the lecturers' feedback or solutions on how to employ critical thinking in educating the geography pedagogy learners better. Due to the participants' perceptions and the feedback that they made, it seemed that their most concern was around cultural and traditional values in the vietnamese educational system.

Cited as: Tham, T.C., 2015. Lecturers' perceptions about employing critical thinking in educating geography pedagogy students at Can Tho University, Vietnam. *Can Tho University Journal of Science*. 1: 96-109.

1 INTRODUCTION

For the last few decades, the Vietnamese Government has been following effective and efficient learning and teaching approaches of other countries including The United States of America (USA), The United Kingdom (UK), Australia, and some European countries; however, they still have not achieved complete success in reforming their education system. It was stressed that Vietnam has not applied and achieved a satisfactory result because the Vietnamese learners lack of independence, creativeness and activeness in their thinking and beliefs (Thanh, 2010). According to Helmke and Tuyet (1999), repetitive teaching and learning ways were typical cultural features in the Vietnamese

society which are affected by Chinese traditions. Thanh (2010) also stated that traditional learning perception hides new and current beliefs of learning methods even though the Vietnamese Government has applied a student-centered learning approach into the education system.

CTU was established in 1966 with the main mission of training and educating the labor for Vietnam in general and for the Mekong Delta region of Vietnam specifically. With nearly 50 years of operation, CTU has gained a reputation for being one of the best providers of high quality labor in Vietnam (The Introduction of CTU History- CTU Website, 2014). In recent years, the Vietnamese government has developed policies that would

support this university to engage and promote active learning approaches. The result is that the employment of critical thinking strategies in education can be concerned and developed in the classrooms. CTU has focused on developing student skills instead of providing knowledge mainly as it was for a long time in the past. The university has determined that developing skills for students is one of the most important missions of training and education (The Introduction of The University Vision and Mission- CTU Website, 2014). However, during the time that active learning and some other new teaching and learning approaches have been carried out, some specific problems emerged in relation to learning and teaching culture and habits as well as school facilities.

According to Ho – The Head of the Department of Geography Education, the geography education lecturers at CTU share the same culture and habits with the Vietnamese teachers in terms of teaching methods and beliefs; therefore, they are not active and flexible enough to provide and develop knowledge and skills for their students (said in the interview). It can be said that the geography education field in the Vietnamese context consists of many different areas such as natural science, social and economic subjects, cultural aspect, teaching methods and so on which are considerably controversial and changing regularly. Additionally, the geography pedagogy students at CTU are those who will become geography teachers in Vietnam's lower and upper secondary schools, so their learning ways can affect their future learners' perceptions and beliefs. In this case, it is stressed that changing the ways of teaching and learning is very important for the Vietnamese educational system to process its dynamic era because it is a necessary and urgent need for improving Vietnam's educational quality. It is believed that research on lecturers' perceptions about employing critical thinking in educating the geography pedagogy students at CTU will play a vital role in this case as it is going to study the perceptions of geography education lecturers as well as making recommendations about how to better implement critical thinking in higher education at CTU.

2 LITERATURE

2.1 Overview of critical thinking

2.1.1 Definition of critical thinking

In regard to the definition of critical thinking, many authors (Fisher, 2001; Moore and Parker, 2007; Mason, 2008; Nosich, 2009; Rainbolt and Dwyer,

2012) agreed that critical thinking is a higher thinking skill consisting of interpreting and evaluating arguments about the knowledge that participants can obtain due to communication and interaction. According to Bloom (1956), his well-known pyramid of cognitive activities has six levels of thinking skills consisting of learning knowledge, restating in your own words, using material, identifying parts and relationship, combining into new knowledge and judging.

2.1.2 Strategies for developing critical thinking in educating at higher educational level

In the 21st century, the goals of lifelong learning require applying critical thinking in any education system as it can support learners to get further knowledge and understanding in their school life (Mason, 2008). To stress the roles of critical thinking in educating society, Leicester (2010) stated that critical thinking is central to the educative enterprise as it is a tool for lifelong learning. Newmann (1990) believed that critical thinking is indeed needed to create effective thinkers as learners have a chance to consider, analyze and evaluate different points of view.

At the higher educational level, critical thinking involves more than acquiring knowledge and memorizing information, so students should experience with their peer learners thanks to collaboration (Carter, 2011). Carter (2011) also agreed that applying "Bloom's Taxonomy" (Bloom, 1956) in educating at the higher educational level is very important for learners to develop and improve their analyzing and evaluating skills. Especially, although "Bloom Taxonomy" consists of six ascending order of application such as knowledge, comprehension, application, analysis, synthesis and evaluation, three higher levels of this pyramid should be more concerned in educating at university level (Carter, 2011). As mentioned by Gregory and Parry (2006), to investigate the understanding and skills perceived by the students, evaluation is the highest level of thinking skills that both "Bloom's Taxonomy and Quellmalz's Taxonomy" (Bloom, 1956; Quellmalz, 1985) have indicated.

McWhorter (2011) also implied that to develop the critical thinking of students, university lecturers should create the learning environment in which their students can practice these following skills: listening critically, participating in class, collaborating with other students, thinking critically and solving problems.

According to Nosich (2009), there are two ingredients that turn thinking into critical thinking consisting of reflection and standards of thinking. The first ingredient is reflective thinking, especially about elements of thinking consisting of purpose, question at issue, assumptions, implications and consequences, information, concepts, conclusions and interpretations, point of view, alternatives, context and a visualization of the reasoning. The second ingredient is about thinking standards including clearness, accuracy, importance or relevance, sufficiency, depth, breadth and precision of the reasoning. To be more critical, the student argument or judgment needs to meet these elements and standards as many as possible.

2.2 Critical thinking and teaching geography pedagogy

2.2.1 Geography

Geography is a subject or a scientific area that has its roots in the place, space and environment (Baldwin, 2012; Roberts, 2014). Baldwin (2012) also mentioned that in an educating and learning program, geography can be related to some other fields depending on the particular circumstances that are being explored.

2.2.2 Geography education

According to Risinger (1998), geography education is the field that involves five themes consisting of location, place, interaction of human beings and environment, movement and regions, and teaching methods for these domains.

Relying on understanding of geography and geography education from such authors, teaching geography pedagogy needs to provide learners with both geography knowledge and teaching methods. The teaching methods involve particular methods and skills that can help teachers to impart their knowledge.

2.2.3 Geography pedagogy students

According to Roberts (2014), pedagogy can be considered as the art, occupation or practice of teaching. So it can be understood that geography pedagogy students are practitioners of teaching geography. To practice their task, they need to learn about both geography knowledge and teaching methods of such knowledge.

At CTU, the geography pedagogy students are those who spend four years to take part in obtaining three domains consisting of natural geography science, socio-economic geography and teaching

methods for geography. In particular, in the first two years, the geography pedagogy students mainly focus on learning foundation knowledge about geography and related fields. The other years can be spent for obtaining specialized knowledge of geography and teaching methods. The teaching methods involve a lot of specific specialist and teaching skills, strategies and techniques which can support the students to impart their knowledge in their future teaching career.

2.1.1. Strategies for developing critical thinking in teaching geography pedagogy at higher educational level

In teaching and learning geography, Lidstone and Williams (2006) stressed that geography teachers should focus on learning ways of students rather than teaching methods of lecturers. Furthermore, some sources of information are unreliable, so the way that learners analyze and evaluate their knowledge is very necessary. In addition, Chalkley, Fournier and Hill (2000) stated that geography teachers should encourage students to study actively whereby learners can construct and develop their knowledge independently. In other words, critical thinking and analyzing can help geography students to build up and develop their skills and ability (Foote and Solem, 2009). Grant (1997) mentioned one key point of university innovative geography courses is that they should focus on teaching "a range of skills such as diagnosis, analysis, evaluation, problem solving, decision making" whereby learners can understand and interpret knowledge. Essentially, geography education and critical geography promote thoughtful engagements of learners in order to think and analyze their knowledge carefully and effectively (Hay, 2001). It can be noted that such authors emphasize that in developing critical thinking skills for the geography learners, the teachers need to prepare a lot of specific strategies and techniques which can help the teachers to impart their knowledge as well as to develop their learner thinking ability. For example, the lecturers must be able to manage and control the group working of their students or should be awake of their role of giving chances for the students to share and express any personal opinion and idea. In some cases, the students are not able to discuss about the learning issues, the teachers have to know that what they should do to develop their geography students' critical thinking. Thus, in teaching geography teaching strategies play indispensable roles for enhancing and developing critical thinking.

3 METHODOLOGY

3.1 Setting research questions

The central research question

What are the geography education lecturers' perceptions towards employing critical thinking in educating the geography pedagogy students at CTU, Vietnam?

The sub research questions

1. What are the geography education teachers' perceptions of implementing critical thinking in educating their students at CTU, Vietnam?
2. What feedback do lecturers provide on critical thinking strategies when they implement this approach of educating geography pedagogy students in practice?

3.2 Strategy of inquiry

This study aimed to rely on a qualitative research approach to explore the lecturers' perceptions about enacting critical thinking in educating the geography pedagogy students at CTU, Vietnam. As Creswell (2009) implied, interpretive paradigm is a typical approach to the qualitative research as it aims to explore the meaning and understanding of the participants. Obviously, I chose qualitative design for this study because I wanted to focus on analyzing the participants' perceptions and beliefs of critical thinking. According to Creswell (2009), a qualitative researcher used observations, interviews, documents, and audio-visual materials as the types of data collection.

This study was designed base on the Social Constructivist Paradigm because the constructivist researcher interprets the data based on their own backgrounds, and the participant's views of research issue (Creswell, 2009). Teachers were interviewed by using open-ended questions to gather the information about teachers' understanding because open-ended questions can support the researcher to gather more information about participants' perception and thinking in terms of the research topic (Denscombe, 2010).

Taking interviews, I based data collection on participants' responses to interpret and make some conclusions to the research results. According to Corbin and Strauss (2008), to avoid the influence of specific contexts and conditions to the research accuracy and credibility, I interviewed seven different lecturers to gather a range feedback and information.

3.3 Proposed methodology

An exploratory case study was collected as the methodology of this research in order to answer the questions of "What is happening?" and "How is it going?" (Bouma and Ling, 2004). According to Stake (1995), Yin (2009) and Denscombe (2010), the researcher should use case study when they want to investigate a topic in depth and provide an explanation that is complex and subtle in real life. I set up and started my interviews to gather data which can help me to make important conclusions about the issue. This study was conducted at CTU, Vietnam where the issue can be emerged. The entity is a group of lecturers who are educating geography pedagogy students.

3.4 Population

There are in total of 13 teachers who are working in the Department of Geography Education. Specifically, these teachers have been teaching in three different specialties consisting of natural geography, socio-economic geography and teaching methods in geography; and one of them is the department secretary. The populations of this research were those who were undertaking to do all specialties in regard to the geography education field.

3.5 Data gathering strategies

3.5.1 Sampling

In order to collect credible data, a case with purposeful sampling was chosen. Participants, who are geography education lecturers, were involved in this study. Based on Patton (2002), the inquirer can pick up all cases that meet some of their criterion in purposeful sampling. The criterion specified by the author consists of the following requirements: i) five years experienced lecturers of the geography education field, ii) all lecturers who are directly teaching in this area. Particularly, there are seven participants who have met the criteria. According to Clifford, French and Valentine (2010), in research related to geography, a focus group interview should be between six and 12 participants. It is convincing that interviewing seven lecturers is enough and appropriate to this research in terms of time and views.

3.5.2 Research methods

a. Data collection

Based on qualitative data gathering methods, interview was considered as an appropriate method for the data collection procedures. Interview is an at-

tractive proposition in which researchers can gain straightforward factual information when they want to explore a complex phenomenon (Denscombe, 2010). According to Berg (2007), there are three types of interviews that researchers can use to gather their data based on their purpose and strategy. These consist of structured, unstructured and semi-structured interviews. Taking a consideration carefully, I appreciated and referred to the use of semi-structured as it can help me to follow the question list as well as explored new and individual ideas from participants. Moreover, semi-structured interviews always concentrate on participants' words so that the author will collect enough personal notions (Clifford, French and Valentine, 2010). The inquirer intends to use both open-ended and open questions as these types of questions can help researcher to focus on the respondents' views and ideas (Corbin and Strauss, 2008). Obviously, each teacher would have their own different opinion of critical thinking in education, so open-ended and open questions enable me to collect enough various ideas and perspectives.

b. Data recording

Audio recording

The audio recording aims to save the responses of the lecturers in terms of voice. It plays an essential role because it helps me to demonstrate of original information. As Denscombe (2010) stated, audio taping can enable researchers to save and present primary material in each situation. The recording was used while the writer analyzes and interprets the information. Undoubtedly, the participants' voice can reflect their views of the issue (Montello and Sutton, 2006) so that the author can get verbal answers.

Note taking

As stated by Denscombe (2010), making handwritten notes can support researchers to save and present primary material. I wrote down any further and different information from the lecturers' responses during the interview time. This note taking can go with protocol and audio recording in order to create a more convincing and adequate data collection of the topic. Thanks to this, I can compare and clarify the data amongst note taking, protocol and audio recording.

Interview protocol

I used a protocol during the period of interview

because it is useful in collecting and storing data. As Yin (2009) mentioned, protocol is a good way to increase the reliability and validity of your case study research. Creswell (2009) mentioned that researcher should use interview protocol for asking questions and recording answers during qualitative interviews.

c. Data analysis and discussion

The analysis was followed the process of six steps suggested by Creswell (2009).

Step 1: From interview data, the researcher needs to prepare and organize the data for analysis.

Step 2: The inquirer have to read through all data of interviews.

Step 3: The author began detailed analysis with a coding process. This means that the inquirer will organize the material into segments of text before interpreting the meaning of data (Rossman and Rallis, 2012).

Step 4: Based on the lecturers' perceptions and attitudes of critical thinking, data was coded based on the meaningful segments as mentioned by Johnson and Christensen (2004). Then the researcher sorted them into some different categories (Yin, 2010). This step was described according to what is spoken by the participants. Thus, the data was put into different themes.

Step 5: It described the theme which could give the typical meaning of each data sort. The main message of the category in each description was focused. The main meaning of each theme provided me further understanding about the case.

Step 6: Taking all data collected through interviews, I analyzed and concluded what were lecturers' perceptions in their enactment of critical thinking in education. Furthermore, I developed some valuable recommendations to the problem.

4 RESULTS AND DISCUSSIONS

4.1 The lecturers' perceptions about employing critical thinking in educating geography pedagogy students

This section draws the reader's attention into seven different themes which emphasized the lecturers' perceptions about employing critical thinking in educating the geography pedagogy students at CTU. The data was transcribed in order to convey the main ideas for each theme as it was reported in the table 1.

Table 1: Participant perceptions

Perception aspect	The number of participants who identified this aspect of their perceptions
Culture and tradition	7
Teaching and learning habits	7
The student ability of solving problem	7
The interaction between the lecturers and the students and amongst the students	7
The collaboration among the students	6
Teacher preparation and supports	6
The university/school facilities	6

4.1.1 Theme 1: Culture and tradition

All participants viewed that cultural and traditional values are important for them to develop their students' critical thinking. As explained by participants, "Culture and tradition influence on the ways that the students obtain and react to new knowledge in different situations". For example, in Vietnamese culture the learners have to respect their teachers so that they normally should not debate or discuss something in relation to the lecturers, especially opposite ideas or information to what they have learnt from their lecturers. In addition, "The traditional culture in education also affects student self-reflection and self-reaction in their learning".

Discussion: Culture and tradition were identified as the most dominant theme which affects critical thinking. It can be concluded that all of the seven lecturers believe that in their enacting critical thinking in educating the geography pedagogy students, they appreciate the confidence and freedom from their learners which can support the learners to express their understanding and ideas in relation to the knowledge obtained. In other words, the ways that the students reacted and reflected to their knowledge enable them to develop their critical thinking.

The perceptions about culture and tradition were presented in the previous studies. In particular, Ngoc and Nhan (2013) emphasized that culture is one of important factors that influence on the de-

velopment and improvement of critical thinking. As discussed by Thanh (2010), the Vietnamese learners cannot develop their thinking skills as they are influenced by the Vietnamese traditional and cultural values affected by Chinese culture. In developing critical thinking, the students have to open their mind as they need to receive and accept different perspectives from other people (Grant, 1997). Thus, the rigid traditional and cultural values made the students harder to improve their critical thinking in the present study.

4.1.2 Theme 2: Teaching and learning habits

None of participants forgot to mention that the students' learning habits in lower educational levels make them more inactive and unconfident in the learning process. Furthermore, it was mentioned by all participants that "The past learning habits influence on what the learners do in the class currently". The main problem was that "The passive learning habits from the students are hard to change".

About teaching habits, the participants said that "There are some lecturers who are not willing to apply new teaching strategies, so teaching activities cannot support the learners to promote their thinking". Most participants suggested that the teachers have to be active even when their learners are lazy in class activities. Reasonably, when the lecturers try to create learning activities in the class, their learners get more chances to act, think and learn.

Discussion: All participants concerned about teaching and learning habits, so it can be considered as the second most dominant theme in this situation. The participants thought that the old teaching and learning habits, especially traditional learning habits from lower educational levels, affect the ways that they learn in the university. The participants also realized that a part of the teachers who have a bias in favour of providing information rather than teaching the new knowledge and skills. In contrast, as the participants viewed, both teachers and learners have to create their active and effective teaching and learning habits which can support the student to understand, analyze, interpret and evaluate their new knowledge.

In relation to teaching and learning habits, Walker and Finney (1999) asserted that to develop critical thinking and lifelong learning, the learners have to create their own habits of participating. Participating helps the learners to direct their attention to the process of making products as well as examining the products that they have made (Halpern, 1996).

In this process of learning, besides teaching the lecturers should pay attention to doing their research which is related to teaching and learning activities (Grant, 1997). He also demonstrated that his habits of doing research enable him to learn more about his learners and their learning task, especially their thinking, so he would know how to work with them in order to develop their knowledge and thinking habits. So both positive and active teaching and learning habits are necessary for education to develop critical thinking of the learners in universities.

4.1.3 Theme 3: The student ability of solving problem

The participants noted that "Some geography pedagogy students lacked of solving problem aptitude. For example, in the class, they were very good at learning new knowledge; however, they cannot solve some of their problems well in many practical situations" (all participants). In addition, many geography pedagogy students were quite confused and not confident to express their understanding when they learn new knowledge and solve their problems. As mentioned by all participants, "The problem solving aptitude is very important for the students to obtain new understanding, so the students should be flexible in learning and solving their problems".

Discussion: The student ability of solving problems is one of four themes that all participants identified. Problem solving is an important theme that is essential for the students to deal with their practical and contextual problems. Generally, the participants noted that some geography pedagogy students at CTU lack of problem solving ability or are not able to solve their problems in different contexts and situations. Solving problem in different circumstances demonstrates that the learners are good, effective and critical thinkers in their life and working environment.

Based on McMillan (1987), problem solving is one of important factors in the cognitive processes which support and enhance critical thinking. Specifically, the problem can be concerned and explained by reasoning and evidence which are made from the learners' experience. As discussed by Hay (2001), academic situations in universities which can be created by lecturers can support the students to improve their solving problem skills. Both Grant (1997) and McWhorter (2011) agreed that the problem solving ability not only helps the students to cope with their difficulties, but also let them

interpret their own knowledge. Due to appraising the solution reliability and valuation as well as solving the problem, they are able to value their own knowledge and realize how much hard they try in order to improve themselves.

4.1.4 Theme 4: The interaction between the lecturers and the students and amongst the students

None of the participants denied that the interaction between the lecturers and the students and amongst the students in the class made good impacts to critical thinking of the students. "It depends on specific learning contents, the lecturers need to create different situations that let their learners interact together" (all participants). Additionally, the teachers also need to develop the interaction between them and their learners as it helps them to improve themselves. First, the interaction helps the learners to think and learn from others in different learning activities. Second, it enables the teachers to improve their teaching task. For example, the lecturers and students join in teaching and learning activities whereby they can talk, discuss and show their own ideas related to the lectures. The participants mentioned that "The interaction can be created by class activities in relation to teaching and learning tasks".

Discussion: As discussed by all participants, the interaction in the class is an indispensable factor that enhances the development of critical thinking skills. The participants had a good experience that each learner has their own strong and weak points, so the lecturers should take a full advantage of the student strengths in educating. This also means that the learners need to learn something good and positive from other peer learners as well as avoid negative points from acknowledging someone's faults. When being asked about the interaction between the teachers and learners, the participants sincerely answered that the lecturers usually learn some interesting and good things from the learners. The explanation is that the learners are younger people who are good at Information Technology (IT) and can learn a lot of new knowledge from the internet. So the interaction between the lecturers and students and among the learners is always appreciated in employing critical thinking in educating the geography pedagogy students at CTU.

According to McDowell (1994) and Johnston (2000), it not only develop the interaction between the lecturers and students but also give all of them the authority in the situations of developing the

knowledge. Hay (2001) suggested that to develop critical thinking in the class, both geography educators and learners need to contest based on their time, energies and understanding. The interaction between teachers and learners in current learning society is more common due to some positive effects (Grant, 1997). The most important thing is that teaching and learning processes would be more active and efficient if the collaboration or interaction between the teachers and learners is made.

4.1.5 Theme 5: The collaboration among the students

Six of all participants indicated that "To develop critical thinking the geography pedagogy students have to collaborate with their peer learners". The participant explained that if the learners do not collaborate with other students, they will not share their personal thought as well as receive information from others. In some cases, although they are asked to listen to other opinions, they will not pay much attention to thinking and discussing in relation to emerged issues. Most participants emphasized that "Collaboration among the students also support the class participants to improve their other skills which relate to critical thinking such as communication skills and group working skills.

Discussion: Most participants indicated that the collaboration amongst the learners plays an essential role in active learning society as it gives the learners more chances to work and interact with their peer learners. In collaborating and cooperating time, the students need to talk, share their personal ideas and work with others in order to create the learning products due to collective understanding and skills. The participants also noted that they are not happy and satisfactory with their student's cooperation in the class because some of the geography pedagogy learners lack of collective effort and high demand achievement.

In the literature content, it was identified that the class discussion makes learning more enjoyable and allows the learners to realize that learning geography knowledge and skills is contested and changing (Grant, 1997). This means that when the students participate in class activities, critical thinking and collective learning results can be enhanced easily. McWhorter (2011) implied that to develop the students' critical thinking, university lecturers should create the learning environment in which their students can collaborate with others. Hence, the more collaborative learning environment is created the more opportunities to engage

and enhance critical thinking in the classroom we have.

4.1.6 Theme 6: Teacher preparation and support

Teacher preparation and support are aspects that were mentioned by six participants. According to six participants, "To develop the student's critical thinking, the teachers have to pay much more attention to their lectures as they must prepare their both knowledge, teaching methods and strategies as well as possible". Specifically, the teachers should think about what situations can be emerged or what question they should ask in specific circumstances would occur in the class. If the lecturers get ready due to good preparations, they will develop the learner's critical thinking better. Additionally, with the teacher support, the learners are encouraged to talk and share their personal thinking. Six of all participants stressed that in relation to employing critical thinking, good strategies not only help the teachers to do their teaching task well, but also enable the students to develop their critical thinking effectively because both the teachers and students know what they should do in particular situations in the class.

Discussion: The majority of the participants emphasized that the fully preparation and timely support in teaching are very helpful as it creates an active and effective learning environment. The lectures with the purposes of developing critical thinking need to be more prepared, flexible and perfect compared with the normal active lessons in term of teaching strategies and techniques. For example, it needs to prepare any contestable situation that can occur in the class. Sometimes, the lecturers must be able to control the group learning activities or they should know how to enable their students to express any personal or different perspectives about the learning issues. Sometimes, negative reflections and strong arguments can be raised in the discussion context which requires the lecturers to deal with the learners brainy. In some cases, the lecturers must give their learners helpful supports as this enables the learners to overcome problematic situations or to work more effectively in creating learning products. In many circumstances, the teacher supports help the students to limit the classroom conflict and meaningless debate as the learners sometimes do not know where they should concentrate on their learning tasks.

The teachers play an important role in designing the curriculum and textbooks as it decides what the learners will obtain in their program (Hay, 2001). It

also supports the learners to orientate themselves in making their purpose and learning strategies which should be appropriate to the curriculum and specific courses. According to Hay (2001), the teachers should open more academic situations and questions that enable the learners to participate. Participating in these situations and discussions helps the learners to develop their skills such as analyzing, evaluating and solving problem skills. Furthermore, The lecturers need to prepare teaching strategies and techniques so that "Educational opportunities are available to all" in their class (Castree, 2000, p. 968). It is obvious that the important roles of the teacher preparation and support have been demonstrated in the literatures.

4.1.7 Theme 7: The university/school facilities and support

The majority of the participants mentioned the necessary role of the school facilities in employing critical thinking in teaching the geography pedagogy students at CTU. For example, some school facilities are very important for the students to do their self-study such as libraries, self-study rooms, computers with internet connection and other high-tech equipment. Besides that, to develop critical thinking, the students need to promote their independent learning habits due to some supporting facilities such as computers or laptops with internet connection and libraries. There were six participants in this study noted about the role of information sources in developing critical thinking. As the participants mentioned, "When the learners get more information from different sources, they will be more confident and stronger in giving their own ideas and evidences". Furthermore, "In modern learning society, the students should access to the internet and school libraries so that they can get more learning sources and learn independently". In addition to this, six of such participants also indicated that "Some social and youth union's activities play an essential role in improving the student confidence and activeness".

Discussion: The study has shown that most participants appreciated the school facilities in employing critical thinking for their teaching. First, the library system of the university supports the students to find more evident sources which demonstrate what they are talking or judging. Second, some other facilities such as self-study rooms and computers with internet connection support the learners to study independently. Finally, some social activities and youth union's activities are necessary for the

learners to improve their skills which can be helpful in their learning environment such as collaboration, team-work and communication skills.

In the previous studies, Frijters, ten Dam and Rijlaarsdam (2008) indicated a notion that the learner's arguments and reasoning which come from different reliable and valuable sources are very important for them to develop their thinking skills critically. As Hay (2001) noted, the multiple networks, outside world and broader communities are very necessary for the learners to develop their critical thinking because such learning environments give the learners good chances to communicate and work with other people. Moreover, the teaching faculties and library system, especially librarians, have a interrelationship which enables the learners to develop their critical thinking due to literacy information (Albitz, 2007). It can be concluded that the participants' perceptions about the school facilities and supports has been evident and proved in the literatures.

4.2 The feedback or solutions provided by the lecturers in relation to how to employ critical thinking strategies in educating geography pedagogy students more effectively

In relation to how to employ critical thinking in educating the geography pedagogy students better, the lecturers at the Department of Geography Education have suggested a lot of solutions due to their experience. Depending on personal perspectives and expectations, their solutions can be summarized as it is presented in the next content.

4.2.1 The responsibilities of the government and the Ministry of Education and Training

The Ministry of Education and Training (MOET) needs to catch up with modern and developed educational achievements from other countries such as USA, UK, Australia and some other European countries. The main purpose is to learn and apply some new models of active teaching and learning whereby both learners and teachers can develop their knowledge and skills.

All participants espoused an open mind in framing political and cultural policies from the Vietnamese government. It does not mean that the government needs to give the lecturers and learners the right to do anything in teaching and learning environment. The main idea in this situation is that they can teach and learn in the ways and strategies that they can develop their critical thinking better.

The government should provide the teacher with more scholarships which can support them to study oversea within critical thinking programs or courses. The scholarship is a good support or encouragement that motivates the lecturers to upgrade their understanding about new teaching and learning trends on over the world. Besides knowledge and skills, cultural and traditional values related to education are the things that the teachers can also observe in foreign countries.

The government and the MOET should support educational institutes to implement critical thinking. For instance, the government can help to open workshops whereby the teacher can meet and learn from international experts. In addition to learning, the lecturers can also share and discuss with such authors so that they can achieve different or better strategies and techniques to develop critical thinking in their classrooms.

4.2.2 The responsibilities of Cantho University

CTU should open more conferences, workshops where both teacher and students can come and share their understanding about critical thinking. Moreover, in regard to critical thinking they specially learn some new ideas from some people who have studied from oversea countries. Besides the knowledge and information, conferences and workshops also provide the lecturers and students with good chances to share their opinions about how to develop critical thinking more effectively.

Most participants mentioned that the training program should focus on developing the students' learning skills and personalities rather than providing more knowledge. It is indicated that if the learners possess good skills and positive personalities, they will obtain the knowledge independently as well as apply it in different contexts or situations very well.

It is an indispensable requirement to reduce the class size as it provides the teachers with more opportunities to concern about every single student and their thinking process. As all participants suggested that they cannot concern each learner in learning activities because of crowded class. So focusing on some learners in the limited time is not able to help the students developing the thinking skills critically and effectively.

The training program should be provided more credits and school hours so that both teachers and students get more time to analyze and evaluate

someone's thinking in the class. In addition, they also can share and argue with others so that critical thinking can be emerged and improved.

The university also needs to invest more money in developing infrastructure and high-tech facilities. All participants recommended that some new computers, projectors and functional rooms should be provided in educating the geography pedagogy students as it is an indispensable need. The participants mentioned that "Information is changing every single second, so everything in the IT era should be updated on time".

4.2.3 The vital role of the lecturers at the Geography Education Department

In employing critical thinking in their teaching, six participants noted that making a good preparation is the basic and necessary step that the teacher should do for their lectures. It is believed that good preparation can help the teachers to carry out their lectures smoother and more flexible as well as cope with sudden situations easier.

The lecturers also need to change their rigid perceptions about teaching and learning. In the Vietnamese society, there are still many teachers who are in favor of their reading and speaking in their teaching time, so it harms on their own and their learners' critical thinking.

It needs to improve the lecturer understanding about how to develop critical thinking through taking part in workshops or conferences. It means that both teachers and students at the Department of Geography Education should learn about critical thinking in education.

Creating a sharing and learning environment in the class is absolutely necessary as it enables both teachers and learners to get more chances discussing and debating of the learning issues. Any question or situation that the teachers create in the class, it should be controversial or open. By this ways, the learners can arise and debate both sides of the issues; therefore, their thinking can be encouraged and improved positively.

Besides the lectures, the teachers and class supervisors should create more extracurricular activities whereby the students can get along with collective and communicating environment. This helps the students to increase their confidence and activeness in front of others, so they will be more comfortable and enthusiastic in the class discussion.

4.2.4 *The essential role of the geography pedagogy students at Cantho University*

The learners should be more active and confident so that they are comfortable and willing to share their thinking and perspectives with their peer learners. To be confident and active, the participants suggested that the learners need to participate in different extracurricular activities and social works whereby they can keep in touch and work with many different people.

Active learning habits and perceptions are good aims that the learners need to catch up. One of the most difficult things that the participants have faced in employing critical thinking in my educating task is the students' learning habits and perceptions. Obviously, when the students' learning habits and perceptions are changed, their learning methods and quality will be improved.

Taking part in self-study environment, the learners have to learn and prove to themselves about what they are thinking such as is it correct or not, is it convincing to other people, how to express it to their classmate and teachers? So they must try their best to study and work it out seriously. Hence, their thinking will be easily operated.

Participating in different social works can support the students to improve their communication skills and social personalities. If the role of the teachers is creating such activities in their planning, the learners need to take the responsibilities of carrying it practically.

The students need to make the link between learning and practicing. The reason is that some geography pedagogy students at CTU are in favor of understanding theoretically rather than doing it in practical situations. The most important role of education is to apply new understanding in solving practical situations or problems in real life, so theoretical knowledge is just the basic achievement in learning life of somebody.

5 CONCLUSIONS, IMPLICATIONS AND LIMITATIONS

5.1 Conclusions

This study reported that the lecturers' perceptions were appropriate to the literatures that were made by previous studies. It was interesting to note that most participants have raised appropriate ideas on their perceptions of employing critical thinking in educating their students compared with literature of this study. Through this study, the voice of the Vi-

etnamese lecturers can be added to the literature. As research on critical thinking in Asian countries in general and in Vietnam in specific is not very popular, this study showed that the lecturers at the Geography Education Department at CTU are holding positive and good perceptions and understanding about critical thinking in education. To the participants, the most important factors that influence on the employment of critical thinking were cultural and traditional perceptions of both the lecturers and students, especially the learners.

According to the participants' perceptions about implementing critical thinking, it seemed that the problematic situations are mainly emerged from some factors that not very related to the participants. Furthermore, governments, university leaders and educational institutes need to contribute to the development of critical thinking in education. Although the reasons are not very related to the participants, they also have an essential role in cooperating with other people in order to enhance the learners' critical thinking ability.

Undoubtedly, the feedback that was suggested by the participants is also the solution to the problems of employing critical thinking in educating the geography pedagogy field at CTU. It cannot be denied that the participants have raised their feedback which based on reasonable evidence and good understanding of critical thinking. It is obvious that if the feedback or solutions can be considered carefully, the critical thinking will be employed more effective in the short term.

5.2 Implications

From this study, there are some implications that are described below.

5.2.1 *Further research*

As this study only focused on the specific field of geography pedagogy at CTU, it requires further research in other fields.

In the short term, the other research needs to focus on how the lecturers practice their employing of critical thinking in the university. It means that the further study should research on the congruence between the teachers' perceptions and their practice in the class.

This study concentrated on the lecturers' perceptions, so the future study needs to research on the thinking and beliefs of the students about critical thinking in education.

In this study, a small number of participants were selected, so it could not generalize about the lecturers' perception of employing critical thinking from one case study. It suggests that further research will collect a larger number of participants so that the research results will contribute to solving the real situations more effectively.

Besides, future studies should use more or other data collection measures in order to enhance the credibility of the findings.

5.2.2 National policy and practice

Critical thinking is still new in Vietnam and is not an orthodox term in education at the present time. Moreover, it seemed that critical thinking is still strange and hard to employ in Vietnam due to different reasons.

This study suggests that the policy makers who work in the Vietnamese government and the MOET need to pay more attention to making any policy that is related to critical thinking, especially policy on the employment of critical thinking in education.

The study also asks the policy makers about the guideline and framework which help people to employ critical thinking.

5.2.3 University leaders

It is obvious that the participants' feedback may not be known by university leaders, so the participants' feedback cannot be concerned in the practice of employing critical thinking in their teaching. This study suggests that both university and faculty leaders should make more specific policies that satisfy the participants' expectations in regard to the development of critical thinking.

In addition, the university policy needs to concentrate on the employment of critical thinking in the geography pedagogy field in specific and in all training areas in general.

The university leaders need to open more conferences and workshops whereby the participants and others can share and learn from other teachers and students in relation to critical thinking and its employment in the class.

5.2.4 Lecturers

In the higher education level, the lecturers should be more active in learning and preparing themselves for a better understanding of critical thinking and how to develop higher thinking skills in the class.

The teachers also need to be more open and flexible in their thinking and beliefs in relation to teaching and learning methods, especially active learning and critical thinking strategies in education.

They, at the same time should try their best to employ critical thinking strategies as well as learn from experience of how to develop critical thinking better for the learners. As believed that practice makes perfect; therefore, the lecturers' practice of employing critical thinking will play an important role in their future achievements.

5.2.5 Students

The main implication is that the learners need to change their mind in relation to teaching and learning tasks. For example, they should adapt with new teaching and learning approaches in order to make their thinking and beliefs more open and flexible.

Being more confident and active in learning environment, the students will be more collaborative and cooperative in their learning process, so they can develop their higher thinking skills easily due to discussing, analyzing and evaluating someone's perspectives or understanding.

Positive and active learning habits should be made by the students as these habits lead the learners to better and more practical understanding. It is suggested that in creating learning habits, the learners need to focus on their learning methods rather than what they learn.

5.3 Limitations

Due to specific situation, this study has some limitations that are mentioned in the next paragraph of this section.

First, the study was carried out in the specific context at the Department of Geography Education of CTU. It is clear that in this study, the domain was very small as it just focused on one program at CTU. So the conclusions in the study cannot be considered for general situations in the Vietnamese educational system.

Second, this study selected a particular group of participants in a single field at CTU; therefore, the number of the participants was also small.

Next, in relation to data collection, it is clear that observations will provide the study with more detailed information and commentary of actual practice.

Additionally, this study relied on the participants' perceptions of employing critical thinking in their

teaching, so it can be potentially limited by bias thinking and beliefs.

Finally, the limited time on research is another problem that can create some surfaced conclusions. It is suggested that a longer time will provide the author with further understanding and achievements on the research.

It is believed that despite such minor limitations, the selected case study was appropriate and valuable in relation to the research roles.

REFERENCES

- Albitz, R. S., 2007. The What and Who of Information Literacy and Critical Thinking in Higher Education. Portal: Libraries and the Academy.
- Baldwin, S., 2012. Placing Geography in the New Zealand Curriculum. *New Zealand Geographer*, 68 (3), 211-218.
- Berg, B. L., 2007. *Qualitative research methods for the social sciences* (6th ed.). Boston: Pearson Education Allyn & Bacon.
- Bloom, B. S., 1956. Taxonomy of educational objectives: The classification of educational goals, Handbook I: Cognitive domain. London: Longman.
- Carter, H. R. P., 2011. Critical Thinking: A Benefit of Higher Education. *Firehouse*, 36, 82-84.
- Castree, N., 2000. Professionalisation, activism, and the university: whither 'critical geography'? *Environment and Planning A*, 32, 955-970.
- Chalkley, B., Fournier, E. J., and Hill, A. D., 2000. Geography teaching in higher education: Quality, assessment, and accountability. *Journal of Geography in Higher Education*, 24 (2), 238-245.
- Clifford, N. J., French, S., and Valentine, G., 2010. *Key methods in geography* (2nd ed.). London: SAGE.
- Corbin, J. M., and Strauss, A. L., 2008. *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Los Angeles, CA: Sage Publications, Inc.
- Creswell, J. W., 2009. *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.): Place of publication: SAGE.
- Denscombe, M., 2010. *The good research guide: For small-scale social research projects* (4th ed.). Maidenhead, England: McGraw-Hill/Open University Press.
- Fisher, A., 2001. *Critical thinking: An introduction*. Cambridge, U.K. New York: Cambridge University Press.
- Foote, K., and Solem, M., 2009. *Teaching college geography: A practical guide for graduate students and early career faculty* (1st ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Frijters, S., ten Dam, G., and Rijlaarsdam, G., 2008. Effects of dialogic learning on value-loaded critical thinking. *Learning and Instruction*, 18 (1), 66-82.
- Grant, R., 1997. A claim for the case method in the teaching of geography. *Journal of Geography in Higher Education*, 21 (2), 171-185.
- Gregory, G. and Parry, T., 2006. *Designing brain-compatible learning*. Thousand Oaks, CA: Corwin Press.
- Halpern, D. F., 1996. *Thought and Knowledge: An Introduction to Critical Thinking*, Place: Psychology Press.
- Hay, I., 2001. Critical Geography and Activism in Higher Education. *Journal of Geography in Higher Education*, 25 (2), 141-146.
- Helmke, A., and Tuyet, V. T. A., 1999. Do Asian and Western Students Learn in Different Way? An Empirical Study on Motivation, Study Time, and Learning Strategies of German and Vietnamese University Students. *Asia Pacific Journal of Education*, 19 (2), 30-44.
- Johnson, B., and Christensen, L. B., 2004. *Educational research : quantitative, qualitative, and mixed approaches* (2nd ed.). Boston: Allyn and Bacon.
- Johnston, R., 2000. Authors, Editors and Authority in the Postmodern Academy. *Antipode*, 32, 271-291.
- Lidstone, J., and Williams, M., 2006. *Geography education in a changing world: Past experience, current trends and future challenges*. Dordrecht [London]: Springer.
- Mason, M., 2008. *Critical thinking and learning*. Oxford: Blackwell.
- McDowell, L., 1994. Polyphony and Pedagogic Authority. *Area*, 26, 241-248.
- McMillan, J. H., 1987. Enhancing College Students' Critical Thinking: A Review of Studies. *Research in Higher Education*, 26, 3-29.
- McWhorter, K. T., 2011. *Study and critical thinking skills in college* (7th ed.). Boston: Longman.
- Montello, D. R., and Sutton, P. C., 2006. *An introduction to scientific research methods in geography*. London: SAGE.
- Moore, B. N., and Parker, R., 2007. *Critical thinking* (8th ed.). Boston: McGraw Hill.
- Newmann, F. M., 1990. Higher order thinking in teaching social studies: A rationale for the assessment of classroom thoughtfulness. *Journal of Curriculum Studies*, 22 (1), 41-56.
- Ngoc, H. V. K. and Nhan, V. D. T., 2013. *Educating critical thinking for Vietnamese students: Experience from Japan*.
- Nosich, G. M., 2009. *Learning to think things through: A guide to critical thinking across the curriculum* (3rd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Patton, M. Q., 2002. *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Rainbolt, G. W., and Dwyer, S., 2012. *Critical thinking*. Boston, Mass.: Wadsworth Cengage Learning.

- Risinger, C. F., 1998. Geography education. *Canadian Social Studies*, 32 (3), 101.
- Roberts, M., 2014. Powerful knowledge and geography education. *The Curriculum Journal*, 25 (2), 187-209.
- Rossmann, G. B., and Rallis, S. F., 2012. *Learning in the field: An introduction to qualitative research* (3rd ed.). Thousand Oaks, CA: SAGE.
- Stake, R. E., 1995. *The art of case study research*. Thousand Oaks: Sage Publications.
- Thanh, P. T. H., 2010. Implementing a student-centered learning approach at Vietnamese higher education institutions: Barriers under layers of Casual Layered Analysis (CLA). *Futures Stud*, 15, 21-38.
- Walker, P. and Finney, N., 1999. Skill Development and Critical Thinking in Higher Education. *Teaching in Higher Education*, 4, 531-547.
- Yin, R. K. a., 2009. *Case study research: Design and methods* (4th ed.): Place of publication: SAGE.