The Implementation of Critical Thinking in Vietnamese Primary Moral Education Classes

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ABSTRACT

Vietnam is undergoing a comprehensive educational reform. Innovation within the curriculum requires a content-based approach to be replaced by a competence-based approach in which critical thinking is stressed in educating primary students. This study aims to determine the extent to which critical thinking is implemented in current primary moral education classes to provide a knowledge base for designing a new moral education curriculum that can be effective in teaching critical thinking to Vietnamese primary students. It reveals that despite a generally positive attitude toward the use of critical thinking by students, critical thinking is still currently implemented only to a low extent in moral education classes. The study reinforces the belief about the deep influences of Confucian heritage culture on the implementation of critical thinking that primary teachers and students use in their classroom practices. It recommends that critical thinking should be more widely fostered in moral education in Vietnam with attention needed to be given to cultural features and divergences. The study suggests the application of a social constructivist perspective and transformative learning to a new design of the moral education curriculum with a view to improving critical thinking and sociocultural values among students.

Key words: critical thinking, moral education, primary level, curriculum, Confucian heritage culture

Introduction

Critical thinking (CT) is widely accepted as a key element of being fully functional in a modern complex society and should be an important dimension of education. Improving students' CT should be one of the primary goals of all educational programmes (Van Gelder, 2005) and the need to engage in CT should be at the core of learning and innovation (McCollister & Sayler, 2010). The reason for this is that CT plays a key role in developing reasoning skills and critical attitudes, which can help students cope with, and make decisions about, life and society (Kurfiss, 1988). Educating students to be critical thinkers is therefore vital for the students themselves and for society in general.

To satisfy society's need to produce a capable future workforce, the teaching of CT has been increasingly emphasized by educators and researchers in Eastern countries and in those with a Confucian heritage culture (CHC). In Vietnam, this is presented by the call for a need for higher-order thinking competences in educating students, as clearly stated in the newly proposed general programme of education (MOET, 2017). Along with creativity and problem-solving competences, CT is considered necessary in educating Vietnamese students in order to eradicate traditional learning styles that focus on memorizing bodies of knowledge. Such learning styles are criticised as hindering Vietnamese students in applying what they learn to their real lives.

It has been asserted that CT should be employed in educating primary students using an integrated approach to learning. Its use is emphasised in teaching moral education (ME) since there is a close relationship between CT and ME. The function of both CT and ME is seen as developing children's capacity to rationalise and both of them include a wide spectrum of value (Weinstein, 1988). In the current wave of reforming the educational system in Vietnam, ME, which is a part of civic education and has increasingly attracted significant interest from researchers, educators and other individuals, is stressed in preparing students to be civic-minded, creative and critical thinkers. However, there is little knowledge and there are few studies about how the current ME curriculum and classroom practices help to develop CT among Vietnamese primary students. This lack prevents researchers and educators from carrying out an adequate assessment of the current primary ME curriculum. Moreover, it can make it more difficult for educators to redesign the ME curriculum effectively in order to develop CT among Vietnamese primary students, who are acknowledged as having been strongly influenced by Vietnamese CHC (Đạm, 1994; Hằng, Meijer, Bulte, & Pilot, 2015).

This study is the first step of a national two-year research project in Vietnam, wherein an educational reform is being extensively undertaken with a view to making significant improvements to educational outcomes. The project is about designing an innovative primary ME curriculum and lessons that can help develop CT among Vietnamese primary students. To do this, an evaluation and revision of the current ME curriculum is required in terms of its ability to support primary students' CT. Based on a curriculum perspective developed by Van den Akker (2003), this study focuses on the operational ME curriculum implemented at primary level in Vietnam. In particular, it aims to answer the following main research question: **To what extent is CT implemented in the current Vietnamese primary ME classes?** By answering this question, this study is not only an active response to the call for a revised and innovative educational curriculum in Asian countries in general (Örtenblad, Babur, & Kumari, 2012) and in Vietnam in particular, but it also provides knowledge to fill in the research gap in the field of teaching CT in ME. By zooming into the currently implemented ME curriculum, the study can also reveal some of its characteristics as well as those of teaching CT in Vietnam. In this way, the study can

contribute to the knowledge base of CT in primary ME that can be used as a basis for developing an appropriate primary ME curriculum for teaching CT skills among students in a CHC.

CT definitions and characteristics

CT is a complex concept with various definitions. CT is understood as a thinking skill but not every valuable thinking skill is a CT skill. CT is one among a family of closely related forms of higher-order thinking, along with problem solving, decision-making and creative thinking (Facione, 1990). It is described as "reflective thinking" (Dewey, 1916) or "reasonable reflective thinking" (Ennis, 1962), which indicates the ability of an individual to raise questions and to find relevant information, as well as reasoning, to support or reject a particular statement based on careful consideration. These definitions reflect the most notable characteristic of CT, which is the employment of a certain scepticism, argument or suspension of assent towards a given statement (McPeck, 1981). In short, CT is thinking about thinking and is acknowledged as a higher-order thinking skill (Halpern, 1998). Many agree that CT happens when individuals analyse and evaluate evidence, arguments, claims and beliefs.

These definitions show that CT has double meaning and unfold its characteristics as well. Dialectically, it can be understood both as a product and a process, and as being individualistic but also social. As a product, CT results in judgements, conclusions or claims based on evidence and within a specific context that one uses for critique or argumentation. These judgements, conclusions and claims are purposeful and self-regulatory and can influence one's beliefs and actions (Facione, 1990). As a process, CT consists of mental activities that take place in a certain order in the human brain. These activities are questioning, interpreting, analysing, evaluating, inferencing and explaining, which are conceptual, methodological and contextual, showing careful consideration upon which a judgement is based (Facione, 1990; Watson & Glaser, 1980). CT is individualistic because of the fact that the mental activities involved in CT take place silently in the brain of a person on interacting with a given statement, and every conclusion or claim is personal. CT is social because these activities not only take place inertly in the human brain but also in oral human interactions through argumentation or judgement in oral communications. Through oral interactions and argumentation, conclusions and claims are made and considered as the results of consensual agreement. These characteristics of CT can reflect the affective characteristics of critical thinkers, who are described as being sceptical, curious, inquisitive, open-minded, fair-minded, honest and confident (Facione, 1990). Such critical thinkers tend to raise vital questions and problems, formulate them clearly, seek and assess relevant information, analyse and evaluate information well, and communicate effectively with others (Duron, Limbach & Waugh, 2006). They do not adhere to a right-wrong mode in assessing opinions but often consider various views and perspectives in accepting explanations that are well reasoned. In contrast, passive thinkers tend to have a limited and egocentric view of the world, answer

questions with yes or no and view their perspective as the only sensible one and their facts as the only ones that are relevant (Duron et al., 2006).

Teaching CT in ME

ME and CT are thought to be vital in a digital age. Both of them extend instruction beyond standard school subjects and require mastery at higher cognitive levels (Weinstein, 1988). This supports the proposition that education should develop the highest and most characteristically human attributes: rationality and moral sense (Siegel, 1988). The whole enterprise of education is acknowledged to link with the development of values in which ME plays a crucial role. This is currently highly topical in many countries and urgent consideration is being given to how to prepare young people better for the challenges and uncertainties of life in a rapidly changing world (Ichilov, 1998). The skills identified as essential in equipping students to face these challenges and uncertainties in the twenty-first century include: digital literacy, problem solving, entrepreneurial skills, empathy and creativity. Education is expected to engage students in debate about their ethical convictions, and about environmental, political, sociocultural and economic issues that may give rise to a transformation of their values and beliefs (Taylor, Taylor, & Luitel, 2012). For that, learners need to have CT skills.

CT is considered an outcome acquired from deep and meaningful learning, which requires a critical understanding of material and is promoted by active learner participation in a social context. CT in learning is regarded as practical inquiry (Garrison, Anderson, & Archer, 2000) and it results in learners who are capable of applying their own previous knowledge, evaluating their own thinking and solving problems embedded in a situated context. To teach CT to students, it is necessary to create relevant contexts containing learning problems that engage students in seeking information, analysing and evaluating information, communicating and arguing with others in the search for reasonable answers, and problem solving (Garrison et al., 2000; Newman, Webb, & Cochrane, 1995). Overlooking seeking information for problem solving can hinder students in CT activities such as analysis, synthesis, inference and self-regulation, which are needed to form reasonable conclusions or to consider relevant information. In addition, it also hinders possible opportunities for students to show or to nurture their curiosity and inquisitiveness, which are essential attributes of a critical thinker. It is suggested that to encourage students to implement CT activities in ME classroom practices, the teacher should start a lesson by presenting a learning problem rather than small isolated questions. Solving a situated problem can encourage students to undertake practical inquiry and to think deeply to achieve reasonable solutions. In this way, they can develop their ME knowledge and transformative learning, as recommended by educators for their sustainable lives (Taylor et al., 2012).

The teacher can support students in developing their CT skills by asking open-ended questions, as suggested by Bloom (1956). Closed-ended questions and simple yes-no questions are not considered particularly effective in developing CT among students in learning (Duron et al., 2006). Teacher-led activities that are dominated by the teacher talking and transmitting information and the frequent use of textbooks in classroom practices reflect traditional teacher-centred and textbook-based approaches (Anderson, 2007; Hằng et al., 2015). Such traditional teaching and learning approaches are believed not to help students and teachers to remain open-minded, equal and equitable, and flexible. In the reproductive teaching and learning approach, topics are not discussed critically but sequentially, and students tend to learn by memorising since the lecture method facilitates the delivery of large body of knowledge. They are placed in a passive rather than active role since the teacher does the talking, the questioning and, therefore, most of the thinking (Maiorana, 1991). In contrast, active learning can make classroom practices more enjoyable for both teachers and students, and, most importantly, they can make students think critically (Duron et al., 2006).

Research context

Vietnam is an Eastern country that has been deeply influenced by a CHC for years due to cultural exchanges with China (Đạm, 1994; Thêm, 1997). CHC refers to settings influenced by Confucianism. This is an ethical and philosophical system developed from the teachings of the Chinese philosopher Confucius. The core of Confucianism is humanism with the focus on spiritual concern regarding the world and the family (Hằng et al., 2015). Under a CHC, in Vietnam, individuals value virtues, prefer harmony and stability, highlight hierarchy, and emphasize face and academic knowledge (Hằng et al., 2015; Nguyen, 2016). According to Pham (2013), it is not easy for individuals in the Vietnamese CHC to replace Confucian values with new values because of a deep and long generic existence that exerts its influences in the decades of modern and global years.

ME, which is a compulsory subject applied at primary education level in Vietnam, is set to play a major role in shaping and developing citizens' consciousness and behaviours in relation to primary students. The current educational reform requires an innovative redesigning of the ME curriculum in order to develop among students not only the requisite life values for their characters but also core competences that meet the new requirements of society. In particular, a new design of the ME curriculum needs to develop among primary students behavioural self-regulating capability, autonomy, communication and cooperation, problem solving and creativity, and help them become capable of applying what they have learned during lessons at school to their lives (MOET, 2017). All of these capabilities and competences require students to have CT skills. Therefore, to appropriately design a new ME curriculum, the current one needs to be evaluated and revised as regards the extent to which it teaches CT to primary students. In

doing that, the strengths and weaknesses of the ME curriculum, factors that influence students' CT, can be uncovered. This will provide a knowledge base as a basis for designing a new ME curriculum and lessons that can be effective in teaching CT and promoting the other core competences among Vietnamese primary students.

Research methods

Data sources

To answer the research question **To what extent is CT implemented in the current Vietnamese primary ME classes?**, questionnaires were utilized to provide data sources. Questionnaires were employed to obtain information from a large population of teachers and students, who could provide practical knowledge regarding the implementation of CT in the current ME classes. In this study, the characteristics of CT and the teaching of CT in ME were used as a theoretical framework to set up specific themes and questions for the questionnaires. Accordingly, the questionnaires focus on determining the extent of CT activities and attitudes implemented by primary teachers and students in ME classes with the premise that CT can be taught using an integrated approach. The questionnaires were discussed intensively several times with other researchers as regards their wording before they were used in practice. In this study, the data come from two main sources:

- Teacher questionnaires (Source A) (APPENDIX 1)
- Student questionnaires (Source B) (APPENDIX 2)

Both of the questionnaires applied similar content for the questions with an emphasis on specific, visible and measurable manifestations of the CT activities and attitudes in ME classes. Specifically, the questions are about:

- Use of types of teaching and learning materials in ME classes
- Approaches to starting ME classes
- Types and frequencies of teaching and learning activities implemented in ME classes
- Students' participation in ME classes
- Teachers' behaviours in ME classes
- Learning assessment in ME classes

The questionnaires use closed-ended questions with Likert scales. By answering the questions, the extent of CT activities and attitudes among primary students in ME classes can be revealed, and thus the extent of the implementation of CT in current primary ME classes can be recognized.

Data collection

Since Vietnam is a country whose shape is like a letter S with three main areas different from each other in terms of culture, geography and lifestyle, the questionnaire surveys were

conducted in all three main areas covering five provinces in total: three urban provinces, including Hanoi (the capital city), – one rural province and one mountainous province. These provinces represented almost all the cultural characteristics of the three areas in Vietnam. Thus, the implementation of CT in primary ME classes in Vietnam can be characterised.

The questionnaire surveys were implemented in two phases. The first was a pilot phase and the second was the official phase. The aim of the pilot phase was to check whether the designed questionnaires were effective or not in obtaining the most complete and accurate information from teachers and students. The pilot questionnaires were given to 50 teachers, and 50 students aged between nine and ten, who came from various public schools in the north of Vietnam and who were selected at random. The analysis of the data from the pilot phase showed that some questions were not expressed appropriately enough to make the teachers and students provide information in a detached and honest manner. After that, the questionnaires were adjusted and reworded to encourage the teachers and students to provide accurate, unbiased and complete information regarding the implementation of CT in the current ME classes. In both of the survey phases, instructions were given to the teachers and students in order to help them understand the questions and guide them in how to work on the questionnaires. Both the teachers and the students were encouraged to be free, honest and detached in order to provide accurate answers to the questions in the questionnaires.

Participants

A total of 321 primary teachers were involved in the official survey, of whom 93.1% were female and 6.9% were male. They differed in terms of educational levels, which ranged from intermediate and college levels to bachelor and master degrees. The highest proportion was the bachelor degree level (69.5%) and the lowest proportion was the master degree level (0.6%). They were class teachers, specialist subject teachers or school leaders, with the class teachers representing the highest proportion at 85.5%. More than half of them had more than ten years of experience.

A total of 1,633 students were involved in the official survey, among whom 51.4% were male and 48.6% were female. Most of them were aged nine (grade 4) or ten (grade 5), amounting to a proportion of 77.5%. The process of selecting students for the questionnaire survey was random with an emphasis placed on students in the final years of primary education. This is because students at these level are acknowledged to be better than those at lower levels in terms of comprehensive reading and writing, particularly in relation to the questions on ME referring to CT.

Most of the teachers and students came from public schools and fewer came from private schools. Vietnam applies a centralized national curriculum for both public and private schools.

Therefore, feedback from diverse teachers and students can provide adequate information regarding ME in relation to teaching CT.

Data analysis

The teachers' and students' written responses to the questionnaires provided raw data sources that were later assessed using SPSS software. The results from the SPSS assessment were carefully read by the author to obtain a general sense of the information and get an opportunity to reflect on its overall meaning in terms of the implementation of CT in ME classes. After that, they were coded by writing words representing categories of CT activities and CT attitudes, and later divided into themes for the findings that emerged from the evidence. These related to students seeking information, dominant activities, lesson starters, fostered learning styles, learning assessment and students' participation in ME classes. Data triangulation was implemented by using the two data sources. The data from the teacher questionnaire (Source A) were used as a primary source, which could then be examined with the data source from the student questionnaire (Source B). Accordingly, coherent interpretations of the themes of the findings were made.

The data analysis involved several steps. Firstly, a detailed descriptive analysis of the collected data was carried out by the author. The analysis indicated means and ranges of scores for the variables. After that, the descriptive analysis was presented and intensively discussed several times with other researchers from the same field as the author. In this way, the data were validated and reliable findings were produced (Creswell, 2014) concerning the implementation of CT in primary ME classes in Vietnam. This also led to a discussion about the implications of promoting CT among primary students in the ME curriculum.

Findings

(1) The activity of students seeking information for learning is overlooked

For the question about the three most time-consuming activities in ME classes, it appears that students seeking/searching for information is the least time-consuming learning activity (Table 1, Sources A & B) and it is one of the three activities least frequently implemented in ME classes, with a mean score lower than the average level, at 2.82 (Table 2, Source A).

Table 1. The three most time-consuming activities in ME classes (Sources A & B)

Teaching and learning activities	Teachers' responses (N=321)	Students' responses (N=1633)
Teacher transmission and lecturing	40.2%	80.4%

Discussion	32.4%	27.8%
Students working in groups	65.7%	53.3%
Teacher asking – student answering	41.4%	67.0%
Students doing exercises	38.6%	29.8%
Students seeking/searching for information	11.8%	5.5%
Students doing presentations/lectures	23.7%	9.4%
Students experiencing/practising	30.5%	14.6%
Students playing games	12.5%	10.2%

The low level of seeking information by students can be found in the result from investigating learning materials that students use in ME classes in which flexible and unofficial materials such as magazines, newspapers, the Internet, etc. are not frequently used by students (Table 3, Sources A & B). Also, it is found that the majority of the students' answers and opinions come from ME textbooks and what they are told by the teacher; other references students use in giving answers and opinions in ME classes get only a low mean score of 1.93 (Source B).

(2) Lessons focus on teacher-led activities dominated by the teacher talking and small questions are used to start an ME lesson

Two of the three most time-consuming activities in ME classes mostly involve the teacher talking; they are: (i) teacher transmission and lecturing, and (ii) teacher asking – student answering (Table 1, Sources A & B). There are discrepancies between the responses of teachers and students on this. The teacher survey indicates that the three most time-consuming activities in descending order are: student group work, teacher asking – student answering, and teacher transmission and lecturing, with percentages of 65.7%, 41.4% and 40.2%, respectively (Table 1, Sources A & B). However, the student survey provides the opposite result, with the descending order being: teacher transmission and lecturing, teacher asking – student answering, and student group work, with higher percentages of 80.4%, 67.0% and 53.3%, respectively (Table 1, Sources A & B). These results indicate that teacher-led activities and the teacher talking are dominant in ME classes. This is supported by the finding that two of the activities, i.e. teacher transmission and lecturing and teacher asking – student answering, are frequently implemented in ME classes and have relatively high mean scores, which are above 3.5 (Table 2, Source A).

Table 2. The teaching and learning activities implemented in ME classes (Source A)

Item	Teachers' responses (N=321)
Teacher transmission and lecturing	3.57
Discussion	3.78
Students working in groups	3.72
Teacher asking – student answering	3.69
Students doing exercises	3.90
Students seeking/searching for information	2.82
Students doing presentations/lectures	2.79
Students experiencing/practising	2.63
Students playing games	2.97

Note: 1 – Never; 5 – In all of the ME classes

The above findings are consistent with, and supported by, the other results from both the teacher and student surveys, which reveal that small questions are most often utilized by the teacher to start an ME class, with mean scores fluctuating from 3.13 to 3.69 (Sources A & B). Learning problems are used less often than small questions and stories to start an ME class (Sources A & B). Remarkably, the extent of the frequency of use of learning problems differs considerably between the teachers' responses and the students' responses. In particular, it gets a relatively high mean score from the teachers' responses, 3.19, being the second most frequently used medium to start an ME class (Source A). However, it gets a considerably lower mean score from the students' responses, 2.60, which is just a little higher than the average level of frequency, and is the third most frequently used medium to start an ME class (Source B). With a significantly higher number of responses from the students, it is believed that learning problems are used to a moderate extent to start an ME class and less frequently used than small questions and perhaps stories.

(3) Reproducing and static learning are fostered for students to do

This is firstly evident from the finding that students doing exercises is the most frequently implemented activity in ME classes, with a mean score of 3.90, while some interactive learning activities, such as student presentation and experiencing, are less frequently implemented (Table

2, Source A). This is also supported by the fact that lessons focus on teacher-led activities, which are dominated by the teacher talking. In addition, reproducing and static learning are uncovered by the finding that ME textbooks, teacher guide books and students' workbooks are widely used for teaching and learning, with ME textbooks being the most frequently used in ME classes (Table 3, Sources A & B). Meanwhile, other flexible learning sources like newspapers, magazines, storybooks and the Internet were not frequently utilized by either teachers or students (Table 3, Sources A & B). As can be seen in Table 3, the students' high use of ME textbooks and workbooks can be confirmed by the results in the teacher survey, with high mean scores of 4.49 and 4.02, respectively (Source A).

Table 3. The frequency of use of materials in ME classes (Sources A & B)

Materials	Teachers' responses (N=321)	Students' responses (N=1633)	Teachers' responses to students' use (N=321)
ME textbooks	4.45	3.81	4.49
Teacher guide books	3.74	N/A	N/A
Student workbooks	N/A	3.02	4.02
Other references (newspaper, magazines, storybooks, etc.)	2.82	1.82	1.98
Internet	2.77	1.49	1.90

Note: 1 – Never; 5 – In all of the ME classes

The students' high use of ME textbooks is reinforced by the finding that students' answers and opinions often come from ME textbooks and what is spoken rather than from students' experiences and existing knowledge or from discussion among students, as acknowledged by the majority of the teachers and students (Sources A & B). The frequency with which students use ME textbooks and teachers' transmission for their answers and opinions is considerably higher than the average level, with mean scores above 3.0 (Sources A & B). This is consistent with the finding that teachers acknowledge that students often remain passive in their learning, afraid of asking questions, and adhere to the teacher and textbook, with a mean score just a bit higher than the average level of 2.54 (Table 4, Source A).

(4) Correct answers and opinions are expected and appreciated more than reasonable answers and opinions

The majority of teachers focus on correctness rather than on the clarity and rationality of answers and opinions given by students (Source A). The results from the teacher survey show that the frequency with which students expect the teacher to tell them answers and transmit information is moderate, with a mean score just a little higher than the average level, of 2.60 (Source A). However, the student survey indicates a considerably higher number, with a mean score of 3.45 (Source B). This means that students often expect the teacher to give them correct answers and transmit information. In addition, the results of both the teacher survey and the student survey show that the most frequent reaction of the teacher to students giving unexpected/wrong/different answers/opinions is to tell them the correct answers or to lecture them, with significantly high mean scores of around 4.0 (Sources A & B). In addition, it is found that students relatively frequently use the word correct or wrong to assess peers' answers, with mean scores fluctuating from 3.09 to 3.10 (Sources A & B).

(5) Students remain fair in assessing peers' opinions, but less fair in assessing those of teachers

The results from the teacher survey reveal that students do not often dinstinguish between peers whose learning is good and those whose learning is weak, between peers they like and those they dislike in assessing their answers/opinions. This is shown by the relatively low mean scores of 2.20 and by 1.95, respectively (Table 4, Source A). These are consistent with the results from the student survey, which reveal that students are not often affected by their personal thoughts on peers, as shown by mean scores fluctuating from 1.36 to 2.28 (Table 5, Source B). This indicates that students remain fair in assessing their peers' opinions and is in line with the fact that students do not often use "person-attacking" words to assess peers' opinions, as shown by the results from both the teacher survey and the student survey with low mean scores on this of 1.65 (Source A) and 1.43 (Source B), respectively. Such a fair attitude on the part of the students is supported by the fact that students very often express different opinions to their peers and ask a question when they are not clear about something, with mean scores higher than the average level (Source B).

Table 4. Teachers' feedback on students' involvement in ME classes (N=321) (Source A)

Student involvement	Mean
Are confident in presenting opinions	3.17
Are honest in presenting opinions	3.43

Speak loudly and clearly	3.11
Listen attentively when others talk	3.65
Are passive and adhere to the teacher and the textbook when answering	2.54
Are afraid of saying the wrong thing	2.41
Are afraid of speaking out against the opinions of peers	2.45
Are afraid of speaking out against the opinions of the teacher	2.49
Hesitate to ask questions	2.54
Distinguish good learners from bad learners in assessing peers' opinions/answers	2.20
Distinguish liked peers from disliked peers (in the student's personal relationship) in assessing their opinions/answers	1.95
Are afraid of doing a presentation in front of the class	2.57
Tend to wait for the teacher to give answers	2.60
Assess peers' answers based on a "right-wrong" mode	3.09
Are ashamed when their opinion is not agreed with	2.30
Speak scornfully about a peer when a disagreement takes place	1.65
Explain clearly his/her claims and statements	2.76
Make appropriate adjustment after the lesson	3.11

Note: 1 – Never; 5 – All of the time

However, the results from the two surveys show that students are less fair in assessing teachers' opinions. The students seem to be more afraid of giving answers or expressing opinions that are different from or opposite to those of the teacher than they are to contradicting their peers (Table 5, Source B). This is also supported by the finding from the student survey in which students indicate their expectation regarding the teacher giving answers and lecturing with a rather high mean score of 3.45 (Table 5, Source B).

Table 5. Students' feedback on their involvement in ME classes (N=1633) (Source B)

Student involvement	Mean
I ask questions when I am not clear about something	2.57
I give explanations for my opinions/claims	3.06
I give opinions that are different from my peers'	2.59
I give opinions that are different from the teacher's	2.19
I use the word correct or wrong in assessing my peers' answers	3.10
I am afraid of saying the wrong thing when I give my opinions	2.05
I get words like "crazy", "stupid", "silly" or "bad"… from my peers when I give different answers/opinions	1.43
I do presentations in front of the class	2.27
I will agree if the answer/opinion comes from the peer I like	2.02
I will agree if answers/opinions come from peers who are good at learning	2.28
I think my peers disagree with me because they do not like me	1.36
I think I am bad when my answers/opinions are not agreed with by my peers	1.74
I speak loudly and clearly when I give my answers	3.55
I listen attentively when my peers speak in lessons	4.00
I expect the teacher to give answers and lecture	3.45

Note: 1 – Never; 5 – All of the times

(6) Students listen attentively, and speak loudly and honestly when giving answers

The results from the teacher survey show that the teachers seem to relatively appreciate some students' learning attitudes in ME classes with the mean scores being high for students' attentive listening, students' honesty, confidence and courage in speaking out when giving answers/opinions, and students' appropriately adjusted post-lesson behaviours, as shown in Table 4 (Source A). Among these attitudes, students' attentive listening gets the highest mean score from the teachers' responses: 3.65 (Table 4, Source A). These results are consistent with the ones from the students' survey, which reveals that the students often speak loudly and clearly

when giving answers/opinions, and remain attentive when listening to their peers when they are speaking in ME classes, as shown in Table 5 (Source B). Again, the highest mean score is for attentive listening: 4.00 (Table 5, Source B). These results from the teacher and student surveys show that these attitudes are often maintained by the students in ME classes.

Conclusions and discussion

CT can be implemented in the current Vietnamese primary ME classes, with some critical manifestations of students in classroom practices. In particular, students listen attentively, speak loudly, are honest when giving answers and remain quite fair in assessing peers' opinions. Therefore, it can be claimed that Vietnamese primary students have developed certain CT attitudes in ME classes. However, the implementation of CT is still at a low level because of the following features:

i. The activity of students seeking information for learning is overlooked
ii. Lessons focus on teacher-led activities dominated by the teacher talking and the use of small questions to start ME lessons
iii. Reproducing and static learning are fostered for students to do
iv. Correct answers and opinions are expected and appreciated more than reasonable answers and opinions

The findings of this study reinforce the propositions that CT seems to be absent in classroom practices in Eastern countries and in a CHC (Couchman, 1997; Liu & Littlewood, 1997; Totten, Sills, Digby, & Russ, 1991) and a traditional approach is still used with primarily one-way teaching: what the teacher says is right and the students are not entitled to ask about sense and purpose, to require reasons or to ask about content (Chan, 1999). Along with previous studies (Hằng et al., 2015; Tao, Oliver, & Venville, 2013), this study could also make the characteristics of primary classes in a CHC more evident with the domination of teacher-centred, book-centred methods and an emphasis on transmissive and reproducing approaches in classroom practices.

In order to move the development of Vietnam or other CHC countries forwards, CT is stressed for developing professionals in order to help individuals and avoid blindly adopting inappropriate measures that may have become institutionalized (Richmond, 2007). CT is believed to enable CHC students to change traditional learning styles towards active learning that enables them to identify and question planning and operating assumptions, and to think deeply. In this way, it helps CHC students implement and achieve deep learning and understanding rather than surface learning, which is considered one of the serious problems in the current teaching and learning employed in schools in Vietnam (Ha & Harpham, 2005; Hằng et al., 2015; Kinh & Chi, 2008; Lan & Jones, 2007).

With the findings above, the study is also able to support the proposition that the implementation of CT in Vietnam can be considerably influenced by a CHC (Hằng et al., 2015). CHC features such as the preference for harmony and stability, the focus on virtue, the support of hierarchical order and the emphasis on theoretical knowledge significantly affect teachers' and students' thoughts and beliefs, and the way teachers teach and students learn in classroom practices. In contrast, Western educational philosophy emphasizes rationality (Totten et al., 1991), empirical knowledge and well-substantiated scientific claims, believing that there is no complete truth and that every aspect of theoretical knowledge is changeable (Dekkers, 2006), and emphasizes equitability: the teacher is considered a more advanced learner (Vygotsky, 1978). Such divergences require a reconcilability to foster CT in a CHC. In a time of rapid changes like now, many traditional values need to be revised and this also applies to CHC values. CHC values need to be filtered for harmony and appropriation with a new life, need to be shifted and transformed so that they are more dialectical and practical. In particular, the CHC values of harmony and a preference for stability need to be interpreted and understood differently, in a way that supports CT. To teach CT to Vietnamese primary students in ME, a social constructivist perspective (Beck & Kosnick, 2006) and transformative learning (Taylor et al., 2012) may be possible since both of them emphasise CT with a focus on sociocultural values and transformation, which can be obtained, it is believed, through solving complex problems containing conflicts or dilemmas. If CT is effectively taught to primary students in Vietnam in ME lessons, it can contribute to the innovation and improvement of education in Vietnam.

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APPENDIX 1 – Teacher questionnaire

QUESTION 1. HOW OFTEN are the following materials used by YOU in ME classes? Please circle only ONE option for each item.

Material	Never	In some classes	In half of the classes	In the majority of the classes	In all of the classes
a. ME textbook	1	2	3	4	5
b. Teacher guide book	1	2	3	4	5
c. Other materials	1	2	3	4	5
d. Internet	1	2	3	4	5
e. Other (Please specify) ……	1	2	3	4	5

QUESTION 2. HOW OFTEN are the following materials used by YOUR STUDENTS in ME classes? Please circle only ONE option for each item.

Material	Never	In some classes	In half of the classes	In the majority of the classes	In all of the classes
a. ME textbook	1	2	3	4	5
b. Student workbook	1	2	3	4	5
c. Other materials	1	2	3	4	5
d. Internet	1	2	3	4	5
e. Other (Please specify) ……	1	2	3	4	5

QUESTION 3. HOW OFTEN are the following mediums used by YOU to start ME classes? Please circle only ONE option for each item.

Medium	Never	In some classes	In half of the classes	In the majority of the classes	In all of the classes
a. Small questions	1	2	3	4	5
b. Stories	1	2	3	4	5
c. Information, reports	1	2	3	4	5
d. Learning problems	1	2	3	4	5
e. Games	1	2	3	4	5
f. Other (Please specify) ……	1	2	3	4	5

QUESTION 4. HOW OFTEN are the following activities implemented in your ME classes? Please circle only ONE option for each item.

Activity	Never	In some classes	In half of the classes	In the majority of the classes	In all of the classes
a. Teacher transmission and lecturing	1	2	3	4	5
b. Discussion	1	2	3	4	5
c. Students working in groups	1	2	3	4	5
d. Teacher asking – student answering	1	2	3	4	5
e. Students doing exercises	1	2	3	4	5
f. Students seeking/searching for information	1	2	3	4	5
g. Students doing presentations/lectures	1	2	3	4	5
h. Students experiencing/practising	1	2	3	4	5

. Students playing games	1	2	3	4	5
. Others (please specify):	1	2	3	4	5

QUESTION 5. Which are the most time-consuming activities in your ME classes? Please circle THREE options max.

1. Teacher transmission and lecturing
2. Discussion
3. Students working in groups
4. Teacher asking – student answering
5. Students doing exercises
6. Students seeking/searching for information
7. Students doing presentations/lectures
8. Students experiencing/practising
9. Students playing games
10. Others (please specify): .....

Question 6. Where do YOU think students' answers come from in your ME classes? Please circle only ONE option for each item.

Students' responses	**No answer**	**Some answers**	**Half of the answers**	**Majority of the answers**	**All of the answers**
ı. From the textbook	1	2	3	4	5
). From what they are told by the teacher	1	2	3	4	5
:. From students' previous experiences and knowledge	1	2	3	4	5
d. From what is discussed with peers	1	2	3	4	5
e. From the Internet, other books, magazines…	1	2	3	4	5

QUESTION 7. Please put the following items in DESCENDING order regarding your interest in assessing students' responses in ME classes.

a. Is the response clear or not?

b. Is the response correct or not?
c. Is the response reasonable or not?
Answer: .....

QUESTION 8. How does a TEACHER react when students give unexpected/different/opposite responses related to subject matters in ME classes, in your opinion? Please circle only ONE option for each item.

Teacher's reaction	Never	Sometimes	Half of the time	Most of the time	All the time
a. Is angry and annoyed	1	2	3	4	5
b. Says that it's wrong/not correct/not plausible	1	2	3	4	5
c. Scolds the student	1	2	3	4	5
d. Punishes the student	1	2	3	4	5
e. Hits and threatens the student	1	2	3	4	5
f. Ignores/skips it	1	2	3	4	5
g. Smiles and says "Thank you" to the student	1	2	3	4	5
h. Gives a compliment/praise	1	2	3	4	5
i. Asks the student more questions to elaborate the initial response	1	2	3	4	5
j. Invites other students to answer	1	2	3	4	5
k. Provides students with answers or transmission	1	2	3	4	5
l. Warns students for the next time	1	2	3	4	5
m. Other (please specify):	1	2	3	4	5

QUESTION 9. What do YOU think about the students' participation in ME classes? Please circle only ONE option for each item.

	Student participation	No one	Some students	Half of the students	Majority of the students	All of the students
a.	Are confident in presenting opinions	1	2	3	4	5
b.	Are honest in presenting opinions	1	2	3	4	5
c.	Speak loudly and clearly	1	2	3	4	5
d.	Listen attentively to others talking	1	2	3	4	5
e.	Are passive and adhere to the teacher or the textbook for answering	1	2	3	4	5
f.	Are afraid of saying the wrong thing	1	2	3	4	5
g.	Are afraid of speaking out with different/opposite opinions to peers	1	2	3	4	5
h.	Are afraid of speaking out with different/opposite opinions to the teacher	1	2	3	4	5
i.	Hesitate to ask questions	1	2	3	4	5
j.	Distinguish good learners from bad learners in assessing peers' opinions/answers	1	2	3	4	5
k.	Distinguish liked peers from disliked peers (in the student's personal relationship) in assessing their opinions/answers	1	2	3	4	5
l.	Are afraid of doing a presentation in front of the class	1	2	3	4	5
m.	Tend to wait for the teacher to give answers	1	2	3	4	5
n.	Assess their peers' answers based on a "right-wrong" mode	1	2	3	4	5

). Are ashamed when their opinion is not agreed with	1	2	3	4	5
). Speak scornfully of a peer when a disagreement takes place	1	2	3	4	5
ą. Explain clearly their claims and statements	1	2	3	4	5
'. Make appropriate adjustment after the lesson	1	2	3	4	5

APPENDIX 2 – Student questionnaire

QUESTION 1. HOW OFTEN the following materials are used by YOU in ME classes? Please circle only ONE option for each item.

Material	Never	In some classes	In half of the classes	In the majority of the classes	In all of the classes
a. ME textbook	1	2	3	4	5
b. Student workbook	1	2	3	4	5
c. Other materials (i.e. stories books, magazines…)	1	2	3	4	5
d. Internet	1	2	3	4	5
e. Other (Please specify) ……	1	2	3	4	5

QUESTION 2. HOW OFTEN are the following mediums used by YOUR TEACHER to start ME classes? Please circle only ONE option for each item.

Medium	Never	In some classes	In half of the classes	In the majority of the classes	In all of the classes
a. Small questions	1	2	3	4	5
b. Stories	1	2	3	4	5

c. Information, reports	1	2	3	4	5
d. Learning problems	1	2	3	4	5
e. Games	1	2	3	4	5
f. Other (Please specify) ……	1	2	3	4	5

QUESTION 3. Which are the most time-consuming activities in your ME classes? Please circle THREE options max.

1. Teacher lecture
2. Discussion
3. Students working in groups
4. Teacher asking – students answering
5. Students doing exercises/worksheets
6. Students seeking information (in learning resources other than textbooks)
7. Student presentation
8. Students experiencing and practising
9. Students playing games
10. Others (please specify): ……

Question 4. Where do your answers come from when you are in your ME classes? Please circle only ONE option for each item.

Your responses	No answer	Some answers	Half of the answers	Majority of the answers	All of the answers
a. From what is typed in the textbook	1	2	3	4	5
b. From what we are told by the teacher	1	2	3	4	5
c. From my own previous experiences and knowledge	1	2	3	4	5
d. From what is discussed with peers	1	2	3	4	5
e. From the Internet, other books, magazines…	1	2	3	4	5

QUESTION 5. How does YOUR TEACHER react when you give unexpected/different/opposite responses related to subject matters in ME classes? Please circle only ONE option for each item.

Teacher's reaction	Never	Sometimes	Half of the time	Most of the time	All of the time
a. Is angry and annoyed	1	2	3	4	5
b. Says that it's wrong/not correct/not plausible	1	2	3	4	5
c. Scolds	1	2	3	4	5
d. Punishes	1	2	3	4	5
e. Hits and threatens	1	2	3	4	5
f. Ignores/skips	1	2	3	4	5
g. Smiles and says "Thank you"	1	2	3	4	5
h. Compliments/praises	1	2	3	4	5
i. Asks you more questions to elaborate the initial responses	1	2	3	4	5
j. Invites other students to answer	1	2	3	4	5
k. Gives answers or lectures	1	2	3	4	5
l. Warns you for the next time	1	2	3	4	5

QUESTION 6. Please circle only ONE option for each item to indicate the extent to which you implement the following activities or attitudes in ME classes.

Your activity/attitude	Never	Sometimes	Half of the time	Most of the time	All of the time
a. I ask questions when I am not clear about something	1	2	3	4	5

b. I give explanations for my opinions/claims	1	2	3	4	5
c. I give different opinions to my peers'	1	2	3	4	5
d. I give different opinions to the teacher's	1	2	3	4	5
e. I use the word correct or wrong to assess my peers' answers	1	2	3	4	5
f.I am afraid of saying the wrong thing when I express my opinions	1	2	3	4	5
g. I get words like "crazy", "stupid", "silly" and "Bad"… from my peers when I give different answers/opinions	1	2	3	4	5
h. I do presentations in front of the class	1	2	3	4	5
i.I will agree if the answer/opinion comes from a peer I like	1	2	3	4	5
j.I will agree if the answer/opinion comes from peers who are good at learning	1	2	3	4	5
k. I think the peer disagrees with me because he/she does not like me	1	2	3	4	5
l.I think I am bad when my answers/opinions are not agreed with by my peers	1	2	3	4	5
m. I speak loudly and clearly when I give my answers	1	2	3	4	5
n. I listen attentively when my peers speak in class	1	2	3	4	5
o. I expect the teacher to give answers and lecture	1	2	3	4	5