CRITICAL THINKING: WHY IS IT NEEDED TO DEVELOP
FOR VIETNAMESE STUDENTS AND WHAT ARE THE CHALLENGES?

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Abstract. This paper presents the needs to develop critical thinking for Vietnamese students. Literature on critical thinking is generalized and introduced. Problems of Vietnamese education and challenges to foster critical thinking in classroom practices are also reported with a relation to influences of a Confucian heritage culture and difficulties of implementation of argumentation. It is recommended that critical thinking needs to be considered as a crucial competence to develop for Vietnamese students in the innovative curriculum and lessons within the current educational reform with the application of a social constructivist approach and context-based education.

Keywords: Critical thinking, Confucian heritage culture, Vietnamese students, argumentation.

1. Introduction

The current competition among nations in the world is essential to be about education. Education is a key strategy to the development of each nation due to its deep influences to individuals who are future labor force (Đỗ Đình Hoan, 2002). The future is asserted to belong to societies that organize themselves for learning and nations that develop policies with an emphasis on the acquisition of knowledge and skills by everyone, not just few (Marshall & Tucker, 1992). This is suitable with the real situation of the current age of information explosion, globalization, and integration. Nowadays, knowledge rapidly becomes obsolete, frequently updated and overloaded. The world is fast moving from a production-based economy to a knowledge-based one (Powell & Snellman, 2004). This brings about multi-dimensional changes in society and education also. Teaching people to have knowledge is now not as important and necessary as teaching people to master knowledge and acquire skills that can help them become life-long learners and useful for themselves in their whole lives. With these skills, people can make good decision and improve their own futures as well as become contributing members of society (Facione, 2011). The educational focus is therefore shifted from learning to know to learning to think. Thinking skills are considered to help people acquire not only knowledge but also skills and attitudes that are necessary for them in future lives. Among the thinking skills, critical thinking (CT) is emphasized because it can help people in coping with and making decisions about life and society (Kurfiss, 1988). Researchers have argued that effective and meaningful education requires that curricular, pedagogical and assessment strategies at all levels of education be coordinated so as to foster in students the thinking skills and habits of inquiry associated with critical thinking and educating students to be critical thinkers is vital for the students themselves and for society in general.
Critical thinking: Why is it needed to develop for Vietnamese students and what are the challenges?

There is widespread acceptance of the idea that CT is a key element to being fully functional in a modern complex society (Watson & Glaser, 1980) and should be an important dimension of education (Bailin, 2002).

In Vietnam, many educational reforms and renovations have been made in order to improve educational quality. Since 2003, the Government has prioritized curriculum reform efforts and commitment to improving the quality of the national *formal and implemented curriculum*. Resolution 14/2005/NQCP (dated November 2, 2005 by the Prime Minister) introduced a framework for the ‘fundamental and comprehensive’ reform of the education system. Recently, an educational curriculum innovation has been studied and designed to apply into practices for the school years after 2018. This innovative curriculum is called as the-after-year-2015 curriculum which focuses on the change from a content-based approach to a competence-based approach in teaching and learning activities (Dương Giáng Thiên Hường, Ngo Vũ Thu Hướng, 2016). It is aimed at training students to become future capable labor forces who can be effective in implementing the industrialization and modernization for the nation in the time of rapid changes and globalization with lots of challenges.

This paper is aimed at clarifying why CT is needed to develop for Vietnamese students. To answer that question, literature on CT is generalized and introduced. Particularly, the authors focus on presenting definitions of CT, and relationship between CT and learning. The authors articulate the need to develop CT in Vietnamese students by presenting problems of the education and challenges to foster CT in classroom practices. To do this, influences of Confucian heritage culture (CHC) and the difficulty of implementation of argumentation are described. The authors recommend that CT needs to be considered as a crucial competence to develop for Vietnamese students in the innovative curriculum and lessons and the application of a social constructivist approach and context-based education. With all of these, the paper contributes to knowledge base of CT with its significance to education in a CHC.

2. Content

2.1. Literature on critical thinking

2.1.2. What is critical thinking?

CT is a complex concept and there has various definitions with several shared terms and conflicting meanings. Many definitions on CT have considerably been influenced from the work of John Dewey (1916) who asserted that CT involves suspension of judgement and skepticism. This opinion is supported by McPeck (1981) with a belief that the most notable characteristic of CT involves a certain skepticism, argument or suspension of assent, towards a given statement. This is developed with the idea from Robert Ennis (1987) who defines CT as reasonable reflective thinking that is focused on what to believe and do. However, according to Lipman (1988), CT is employed for many purposes, not just for deciding what to believe and do. CT is a thinking skill but not every valuable thinking skill is CT skill. CT is therefore one among a family of closely related forms of higher-order thinking, along with problem-solving, decision making, and creative thinking (Facione, 2011.). In this paper, we adhere the definition made by Facione who contends that CT is purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as
Ngo Vu Thu Hang and Nguyen Thi Lien

explanation of the evidential, conceptual, methodological, or contextual considerations upon which that judgment is based (Facione, 2011; Watson & Glaser, 1980).

2.1.2. Critical thinking and learning

Central to interpretation of CT is a realization that it is not a method to be learned, but rather a process, includes both the cognitive and affective domains (Facione, 2011). It is developed through both individual analysis and social interaction (Newman, Webb, & Clive Cochrane, 1995). From an individual perspective, CT is an outcome that is acquired from deep and meaningful learning and understanding, and the product can be judged through individual assignments (Garrison, Anderson, & Archer, 2000). Deep learning requires a critical understanding of material and promoted by active learner participation in a social context. It is opposite to surface learning approach that includes skimming, memorizing, and regurgitating for tests (Newman, Webb, & Clive Cochrane, 1995). From a social perspective, CT is a dynamic process and regarded as a practical inquiry (Garrison, Anderson, & Archer, 2000). According to Newman, Webb, & Clive Cochrane (1995), a clear link between CT, social interaction and deep learning has emerged.

2.2. Problems of Vietnamese education

Vietnam has undergone significant changes since the Government decided to implement a comprehensive renovation (đổi mới) or open-door (mở cửa) policy for the whole economy in 1986 (Nguyen Thi Quynh Trang, 2016). This policy has brought positive influences on education by allowing researchers and educators to seek for and apply advanced educational theories that may come from Western countries. An educational renovation was nation-wide implemented for school curriculum in the year of 2000 (Đỗ Đình Hoan, 2002). Accordingly, basically and comprehensively innovating education and training was considered an objective and urgent task of the enterprise of fostering industrialisation and modernisation in Vietnam. One of the important goals of the reform is to change the teaching and learning style from the traditional teacher-centred approach to the innovative student-centred approach (Harman & Bich, 2010). To do that, various training programmes, workshops and seminars have been organized to equip teachers with pedagogical knowledge and skills for getting used to and mastering this student-centred pedagogy (Harman & Bich, 2010).

Nevertheless, after years of the reform implementation, the traditional teaching and learning styles are still dominant in classroom practices (Nguyen, 2013). In an empirical research conducted by Ngo Vu Thu Hang et al. (2015), it was found that innovative teaching and learning approaches were not well-implemented in science classes in primary schools. Particularly, whole class grouping other than cooperative groups was still dominant for social learning. The amount of time spent for whole class activities was significantly higher than for cooperative complex activities. For group activities, pair grouping was applied for most of the cases and often took place in short time spans, averagely for 2 minutes. Such short spans were believed to be infeasible in helping students implement deep learning and achieve deep understanding. Moreover, textbooks were used as a main teaching and learning source for both teachers and students to adhere and interact with. Teaching and learning was implemented using a repetitive structure in which teachers ask questions for students to answers by reading texts in textbooks. Teachers themselves acknowledged their high dependence on textbooks and reasoned for it by their work overload, limited pedagogical content knowledge, and institutional constraints. Such a rigid textbook-dependence could be well illustrated by the teacher quote below:
Critical thinking: Why is it needed to develop for Vietnamese students and what are the challenges?

- If you do not follow the textbooks, your body will be beaten to pulp. [Nếu không bấm sách giáo khoa thì có mà bị “đánh” cho nát xương.] (Ngo Vu Thu Hang, 2014)

In addition, it was also found that teaching and learning was still teacher-centred in classroom practices. For whole class activities, time spent for teacher activities was significantly higher than for student activities. In the majority of teaching time, the teachers stood in front of students to ask questions and taught knowledge as if it could be transferred in a one-way communication. Teachers often communicated with individual students rather than with student groups. During students’ group discussions, teachers not only provided students with judgments on their discourses but also adjusted students’ discussions and gave them information to answer discussed questions. Besides, teaching was mainly focused on factual knowledge and frequent uses of close-ended and representative questions about What, When, or Where, rather than open-ended and relational questions about Why and How. Body of factual knowledge was directly reproduced by teachers. Most of the group tasks had a low complexity without an emphasis on conceptual and procedural knowledge and hands-on complex tasks were absent in many classroom practices. Considerably, students’ personal aspects were discounted. Students were passive in listening to the teacher and answering representative questions. Teachers acknowledged that the institutional focus of assessment’s on students’ achievements of factual knowledge did not make teachers give up the teaching style of “spoon feeding” [lối dạy học nhồi nhét kiến thức] in their teaching practices. Nguyen (2014) and Pham (2013) reported that the belief that teachers are the most reliable source of knowledge and the model for its construction in their students causes teachers to misinterpret student-centred pedagogy concepts such as learner autonomy, group work and cooperative learning, and therefore contributes to teachers’ reluctance to adopt cooperative learning strategies in their classrooms.

Moreover, it was also found that hierarchical interactions remained in many classroom practices. Students generally deferred to the teacher and considered her as a powerful superior authority. They hardly showed reactions to improper or inadequate interventions from teachers. The following example can illustrate this.

In a primary science class, the students were asked to discuss in pair groups by asking each other about infectious diseases of the digestion system they had got in the past. For one group, when asked by his partner whether he had ever got any infectious disease of the digestion system, the student answered “No”. After hearing his response, the teacher immediately criticized him and stressed that if the answer was just “No”, the group discussion would end right away because there was nothing more to discuss. Then she asked him to change his answer to “yes” in order to continue the discussion (Ngo Vu Thu Hang, 2014).

Hierarchical interactions between teacher and student was also recognized by the fact teachers undervalued neutral roles of a social constructivist teacher that can reflect the equitability in interactions between teacher and students, such as supervising students’ learning and facilitating students to learn when necessary (Ngo Vu Thu Hang, 2014).

The above findings on teaching and learning practices are consistent with assumptions of many educators who claim that traditional and obsolete teaching and learning approaches have still been remained at schools in Vietnam and hindered students to grasp knowledge and skills (Dang Tu An, 2015; Hoang Tuy, 2011). The study of Ngo Vu Thu Hang et al. (2015) using Vietnam as a case study also supports results of many cross-cultural studies. In a culture-approach on teaching and learning of
science, Ying Tao, Mary Oliver and Grady Venville (2013) described Chinese primary teachers were
described to avoid utilizing the recommended group work and memorizing science facts was a
frequent activity for Chinese primary students, who participated more frequently in passive and closed
activities. Other researchers asserted that lessons in Asian countries were traditionally dominated by a
teacher-centred, book-centred method and an emphasis on rote memory (Liu & Littlewood, 1997) with
little emphasis on critical thinking (Couchman, 1997); teaching is primarily one-sided in an one-way
process: what the teacher announces is right and the students are not entitled to ask about sense and
purpose, to require reasons or to question the content (Chan, 1999). Rote learning is considered to be widely applied by CHC students (Biggs, 1996).

2.3. The need to develop critical thinking for Vietnamese students and its challenges

2.3.1. The need to develop critical thinking for Vietnamese students

Recently, the education quality has been stressed with a regard to the integration, modernization,
and development. Many countries in Confucian heritage cultures have been revising the educational
programs and curricular in which teaching and learning goals, content, and methods are put into
innovation with an expectation that the education would be more successful and effective in training
students for future. There is widespread acceptance of the idea that critical thinking (CT) should be an
important dimension of education and the need to engage in CT is at the core of learning and
innovation (McCollister & Sayler, 2010). This is because CT plays a central position in developing
reasoning skill which can help students to cope with and make decision about life and society (Kurfiss,
1988). Educating students to be critical thinkers becomes vital for the students themselves and for
society in general (Ennis, 1986).

Researchers and educators in Vietnam are working on a national broad project towards a new
educational reform, as the recognition of the Government on the modernization and global pressures.
An urgent call has been made for an innovation and redesign of educational objectives, contents, and
methods, in order to meet the human resource needs. The goal of the educational reform is determined
to create a change that is basic and comprehensive about quality and effectiveness of the education. It
can help to shift from the reproductive and transmissive approach to a constructive approach of
teaching and learning that can nurture and develop potential competencies in students (Decision
88/2014/QH13). The Draft Proposal for Post-2015 Overall Curricular stresses to equip students with
essential characters and competencies, which allow them to benefit from the emerging new forms of
socialization and to contribute actively to economic development of the country. The expected
outcome is to produce new generations of active, creative and capable learners and workers able to
meet the demand of a competitive labour market as Vietnam joined the world economy (Harman &
Bich, 2010). This required critical changes in values and perceptions in education; particularly, in the
way teachers and students think and behave in classrooms practices. This also aligns with assertions of
many educators and researchers in the world. According to them (Richmond, 2007) in order to move
developing countries forwards, development professionals require CT to enable them to identify and
question planning and operating assumptions rather than blindly adopting inappropriate measures
which may have become institutionalized. Therefore, to achieve the goal of the current educational
reform, CT needs to be taken into account and to develop for Vietnamese students, who will become
future labor force of the country.

28
2.3.2. The challenges to implement critical thinking in Vietnamese education

Though critical thinking is essential for any educational reform and curriculum innovation, to foster it in Vietnamese education, the following challenges are determined:

**Influences of Confucian heritage culture on education**

Cultures have significant influences on education and the how and what of education is largely connected to the culture of the country (Hofstede, Hofstede, & Minkov, 2010). Confucianism has existed in the Asian countries like China, Taiwan, Japan, Korea, Singapore and Vietnam for thousands of years and still remained its influences until now. According to T. Pham (2013), it is not easy for individuals in a Confucian heritage culture (CHC) to replace Confucian values by new values. This is because of its deep and long generic existence which exerts its influences in the decades of modern and global years.

Despite the partial adaptations to Western-oriented values inherent in recent attempts at educational reform, Confucian heritage culture has influenced education by its cultural characteristics and philosophy (Tao et al., 2013) and the persistence of Confucian styles of thinking in teachers has largely hindered efforts to change learning and teaching styles in Vietnamese classrooms. According to Nguyen Thi Quynh Trang (2016), there have been reported conflicts between requirements for new teaching and learning approaches and the traditional perceptions embedded in the teachers’ minds. CHC shows its influences in implementation of any modern teaching and learning approach based on Western cultures. Nguyen Thi Quynh Trang (2016) also asserted that CHC influences by the face emphasis in individuals and gaining and saving face are very important in Vietnam as a mechanism of social control, including the professional behavior of teachers. Most of the teachers were still strongly influenced by traditional Confucian beliefs about the role and position of teachers, the nature of teachers’ knowledge and the relationship between teachers and students. This is made explicit in an empirical research conducted by Ngo Vu Thu Hang et al. (2015) who specified the CHC features that affect Vietnamese education; they are: the collectivist root, the harmony and stability preference, the virtue focus, the support of hierarchical order, the family value, and the emphasis on theoretical knowledge.

The CHC feature of harmony and stability preference is considered to influence on the teaching and learning by teachers’ direct reproduction of body of factual knowledge and the lack of hands-on complex tasks in lessons. This cultural feature makes individuals avoid confrontation and conflicts in their natural and societal relationships in order to obtain a collectivistic consensus and good living (Quang Đạm, 1994). Xiao (2009) reported that cooperative learning has been applied both in Western culture and in CHC but the way of applying is different: cooperative learning in a CHC is in harmony rather than in argumentation or in conflicts. In the meanwhile, the stability preference encourages in individuals a passive and dependent lifestyle (Trần Ngọc Thêm, 1997) that can create conditions for transmissive teaching and reproductive learning to take place. Besides, the harmony and stability preference in living philosophy and lifestyles drives individuals in a CHC to value humanity and relationships in communications but overlooks rationality, as expressed in various Vietnamese proverbs, i.e. *A bit of humanity outweighs a lot of rationality* [Một bồ cái lý không bằng một tí cái tình]. Consequently, moral-related lessons of ritual behaviours rather than critical and rational thinking with the emphasis on argumentation have been traditionally used as subjects to educate individuals. This has led to overlooking practical inquiry activities which support CT and led to the absence of hands-on tasks in classroom practices.

The CHC feature of virtue focus has influenced the teaching and learning by undervaluing students’ personal aspects. Confucianism encourages individuals to *study manners before knowledge*...
This has become an active slogan for teaching and learning in primary schools in Vietnam, in which ritualistic behaviour is (over-)stressed. In this way, students are encouraged to become obedient and sensible rather than intellectual and critical in their communications. According to Quang Đam (1994), the overemphasis on civility and ritualistic behaviours of Confucianism hinders individuals in proving themselves and binds the personal ego (the personal interest of the I). The feature of virtue focus hinders students to argue with each other and with the teacher in classes, therefore, it hinders CT in classroom practices.

The CHC feature of support of hierarchy has influenced the teaching and learning by the teacher-centred mode and the powerful superior position of teachers in classes. Confucianism regards the teacher as the parent, as expressed in the statement A teacher for a day, a father for life [Thầy dạy một ngày là cha cả đời], and affirms that in the world no parent is wrong [Thiên hạ vô bất thị đề phụ mẫu] (Quang Đam, 1994), meaning that whatever the parent says or does is always right. In Vietnam, there are many folk supporting the idea about the significance of the teacher, for instance, No teacher, no success [Không thầy đố mày làm nên] and To cross a river, build up a bridge/ To become knowledgeable, tie to the teacher [Muốn sang thì bắc cầu kiều/ Muốn con hay chữ thì yêu lấy thầy].

As an inferior, students are traditionally encouraged to be trustful, grateful and respectful to the teacher. They remain modest and humble in communicating with their teacher. This could drive students to depend on and defer to the teacher and could make them avoid arguing with and opposing the teacher, as a way to avoid “a sin of sacrilege”. In this way, CT cannot be conditioned to develop in students and in classroom practices.

The CHC feature of emphasis on theoretical knowledge has influenced the education by a textbook-based teaching and learning approach and the focus on factual knowledge in classroom practices. According to Quang Đam (1994), Confucianism turned from being fond of the old [hiếu cổ] to revering the old [sùng cổ], to sticking stubbornly to the old [nệ cổ], and to restoring of the old [phục cổ], as partly expressed in Confucius’s sayings Reproducing person is not inventing [thuật bất tác] and Revise the old to make sense of the new [Ôn cố nhi tri tân] (Nguyen Hien Le, 1991). In Vietnam, the idiom what formers said is never wrong [người xưa nói chẳng sai] has been popular in use in everyday life. This drove three learning methods reviewing [ôn], practicing [tập], and reproducing [thuật], to be valued in Confucian heritage culture (Quang Đam, 1994). The methods of reviewing and reproducing of the old have promoted rote learning: learning by memorising and by repeating old stereotypes over and over (Quang Đam, 1994). This has created dogmatic and conservative learners who can give simple explanations about the world, life, and human beings but stay limited in abilities of critical thinking, invention, creation, and improvement to science education and human life (Quang Đam, 1994).

The difficulty of effective implementation of argumentation in classroom practices

In another study, Ngo Vu Thu Hang et al. (2017) showed that the implementation of argumentation is a challenge for both teachers and students. Vietnamese teachers do not have enough knowledge and skills of argumentation to help students learn science lessons effectively. The teachers acknowledged that teaching and learning scientific argumentation to be significantly challenging in science classroom practice in Vietnamese CHC. According to them, social conflicts in argumentation occurred during group activities. Then the students tended to wait for the teacher’s interventions or let the group leader decide on the final answers rather than arguing with each other. The teachers found it difficult to help the students resolve such conflicts. It is understood from the teachers that teaching and learning argumentation in Vietnam is more challenging than in Western countries because the Vietnamese CHC culture supports hierarchy, academic knowledge, and stability.
Critical thinking: Why is it needed to develop for Vietnamese students and what are the challenges?

Meanwhile, scientific argumentation can help students think critically, logically, and creatively about world phenomena (Jiménez-Aleixandre, Rodríguez, & Duschl, 2000), understand a core aspect of scientific practice (Duschl, 2008), and be prepared for citizenship (Kolstø, 2001). It should be noted that lessons in Asian countries are considered to have little emphasis on critical thinking and this can hinder students for their future citizenship lives (Couchman, 1997). Therefore, argumentation should be fostered and become part of the science curriculum in Vietnamese CHC.

3. Conclusion

This paper presents basic knowledge on CT and argues why CT is needed to develop for Vietnamese students in the current time that an educational reform and innovative curriculum have been undergoing. It also shows challenges that the implementation of CT would be encountered in practices. Though Vietnamese education has been influenced by CHC but it should be noted that teaching and learning is contextual, teachers and students are highly adaptive. Educational innovation efforts have been made and it was proved to bring certain changes (Nguyen, 2014). For example, a study on the implementation of a professional teacher development program, Vietnamese primary teachers achieved positive changes in teaching attitudes and activities. (Ngo Vu Thu Hang et al., 2017). They became more open-minded, friendly and equitable in interacting with students in the science lessons. In addition, they focused more on encouraging students to engage in inquiry, providing time and space for self-regulated learning, promoting social interactions among students, and seeking elaboration of students’ initial responses. The authors believe that if the educational reform is well implemented and innovative curriculum is appropriately designed, CT can be developed for Vietnamese students and equip them with other thinking skills that help them capable individuals.

To foster the implementation of CT in classroom practices, CT needs to be emphasized as a target competence that students need to achieve. For that, lessons should be designed in a way that supports students in classroom practices to do interpreting, analyzing, evaluating, questioning, inferencing, explaining, arguing, and self-regulating. Also, they need to be taught to be confident, fair-minded and open-minded, honest and inquisitive in their attitudes in receiving opinions from others. A social constructivist approach (Beck & Kosnick, 2006) and context-based education (Gilbert, 2006) should be applied in designing such a curriculum and lessons.

Acknowledgements

This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 503.01-2017.01

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