The Influence of the Socratic Tradition on Cambridge Practice and Its Implication on Chinese Higher Education

Heng WANG

Institute of Continuing Education, Beijing Foreign Studies University, Beijing, 100089, China
Email: wangh@bfsu.edu.cn

Abstract

This study is an attempt in examining the Socratic tradition and its influence in the teaching and learning styles in western institutions of higher learning, the University of Cambridge in particular, and revealing its significance to the current Chinese higher educational practice and reform. The ancient Greek philosopher Socrates is known for his teaching method, the Socratic questioning which emphasizes the mind and the process of inquiry. By engaging in repeated questioning, Socrates tried to lead out or bring out other people's inner tacit knowledge or to reveal some seemingly true knowledge in many people was actually false, and then progress towards the truth. Even today the Socratic tradition still exerts its influence in the institutions of education. The emphasis on the mind and thinking is shared by the mission of universities. University of Cambridge is such an example. The University began its training on thinking skills very early. Still today, questioning, thinking and interactions constitute very important part of Cambridge educational life.

The Socratic tradition has significant implications on Chinese higher education practice. Due to the cultural and social reasons, Chinese culture of learning is known to be in the knowledge transmission model; and Chinese students are not used to speaking up in class. Learning from the Socratic tradition, we could find at least two aspects of implications on Chinese higher education: first, learning should come more from interactions other than one's own effort on reading and inquiry; and second, more thinking rather than memorization should be employed in the learning process. Teachers and education policy-makers should be aware that what is taught can no longer equal to what is learnt. The introduction of the Socratic tradition, with its emphasis on interactions and thinking, is a critical tool in empowering students and liberating their enquiring and analytical abilities. It is hoped that through the introduction and examination of the Socratic tradition, it will improve understanding of Chinese academic circles about western tradition of thoughts and practice, which is beneficial and important for the future development of Chinese higher education.

Key Words: Socrates, The Socratic Tradition, Cambridge, Chinese Higher Education

1. Introduction

Socrates (469-399B.C.) was an ancient Greek philosopher who had exerted a profound influence on the Western philosophy and civilization. Meanwhile he was also known for his teaching method—the Socratic questioning which emphasizes the mind and the process of inquiry. In Sichel's description in *Philosophy of Education*: *An Encyclopaedia*, Socrates was regarded as 'symbolizing teaching excellence and the ideal teacher'[1].

Even today the Socratic tradition still exerts its influence in the institutions of education. The University of Cambridge is such an example. As a world renowned university, it celebrated its 800th anniversary in 2009. Besides its remarkable history and spectacular architecture, the University is prominent in its academic achievement. With over eighty Nobel Laureates, the University of Cambridge has more Nobel Prize winners than any other institution. Since 1992, the consistent results of the government's assessments of research in universities confirm that Cambridge has been found, in the words of *The Times*, to be 'simply the world's best university'[2]. Admittedly part of its current achievement comes from the social advantages of being a collegiate university, Cambridge owes as much to its status as a home to minds of innovation and creativity as to its root in the Socratic tradition.

Despite the progress and advances that have been made in recent years, there still remains a great gap between Chinese and modern western educational approach. In contrast to the vigor and innovations of Cambridge, Chinese pedagogy is generally featured with docility and conformity, which, to a certain degree, stifles creativity (Gardner 1989; Ouyang 2000; Oxford 1995). Due to cultural and social reasons, Chinese students are not used to speaking up in class. The teacher is often regarded as an authoritative parent to whom respect and obedience are due, and challenging and questioning the ideas of the teacher may appear foolish and time-wasting. There are insufficient opportunities for discussion in the teaching and learning process.

In view of the paucity of related literature, this paper is an attempt in examining the Socratic tradition and its influence in the teaching and learning styles in western institutions of higher learning, the University of Cambridge in particular, and revealing its significance to the current Chinese higher educational practice and reform.

It is hoped that through the introduction and examination of the Socratic tradition and its influence on Cambridge practice, it will improve the understanding of Chinese academic circles about the western tradition of thought and practice, which is beneficial and important for the future development of Chinese higher education. It is also wished that, in such an ever increasing globalized world, this effort may prove beneficial to mutual understanding, increasing intercultural sensitivity, and gaining a greater insight into different cultures.

---

[1] Sichel (1996), 616.
[2] Leedham-Green (1996), 221.

The present paper is organized into six parts. The introductory part introduces the topic, research methods and significance of the current study and is followed with a detailed discussion of Socrates, Socratic tradition and its influence in the University of Cambridge in Parts II and III. Part IV is a reflection on the teaching and learning styles in Chinese universities; and Part V, a detailed analysis on the implications of Socratic tradition on the Chinese higher education reform and practice. In the last section, Part VI, there are concluding remarks which summarizes the study.

2. Socrates and the Socratic Tradition

Born in Athens, Greece, Socrates (469 B.C.–399 B.C.) is regarded as one of the founders of modern Western philosophy. Socrates was first described by Plato in the *Socratic Dialogues.* What we now know of this great Greek philosopher comes entirely from the writing of his disciples—chief among them Plato, who attempted to provide a faithful picture of the methods and teachings of the master. Generally, the early works of Plato are considered to be close to the spirit of Socrates, whereas his later works are considered to be possibly products of Plato's own philosophical positions. In some of his early dialogues, such as *Euthyphro* and *Ion*, Socrates' life is generally known as a philosopher whose daily occupation was 'adversarial public conversation with anyone willing to argue with him'[3]. Socrates talked in public—in the market place, outside the gymnasium, at parties, or wherever he happened to be. He would converse with a variety of different people—young and old, male and female, slave and free, rich and poor, anyone who would like to talk to him. He would begin with a deceptively simple question such as 'What is truth?' Or, 'What does it mean to be just?' When the other person answered, Socrates responded with another question that prompted him or her to think more deeply so as to offer a new answer[4]. By engaging in repeated questioning, Socrates tried to lead out or bring out other people's inner tacit knowledge or to reveal some seemingly true knowledge in many people was actually false, and he then could make progress towards the truth. By Plato's account, Socrates devoted his last

30 years to convincing the Athenians that their moral opinions could now bear critical scrutiny. In questioning his fellow citizens about moral and epistemological issues, Socrates revealed some seemingly true knowledge in many people was actually false and he also exposed the foolishness of the respected men. The elite, not surprisingly, resented Socrates, and eventually Socrates was found guilty of interfering with the religion of the city and corrupting the minds of the youth of Athens, and he was sentenced to death by drinking hemlock (Noddings, 2007: 5).

In his life, Socrates put strong emphasis on the use of critical reasoning and rationality. He believed that man was capable of arriving at truth through the use of reason. For Socrates, a

[3] Senchuk (1995), 859.
[4] This process is recorded in Noddings (2007), 3-4.

good human life is a matter neither of conformity to convention nor the pursuit of self-interest as pre-Socratic Sophists held; instead, a good life is obedience to knowledge of the right or to the operations of reason (Carr, 2000: 19). As Socrates usually began his discourse by asking for definitions (or analysis) of the ideas he wanted to talk about, Teichman and Evans regard him as the forefather of 'analytic philosophy' (1991: 1), the branch of philosophy which involves analyzing, defining; and usually proceeds by all the different possible interpretations of abstract concepts and the complex questions.

One of Socrates' most important contributions to western thought is his dialectic method of inquiry, known as the Socratic Method or method of 'elenchus[5]', which he largely applied to the examination of key moral concepts such as the Good and Justice. According to Miller (2008: 963), this method has been regarded as perhaps one of the earliest teaching strategies ever described in education history. Still used today as a teaching strategy, the Socratic Method is a dialectic method of teaching that 'involves dialogue and questioning, emphasizing the exchange of ideas and suppositions that then transforms knowledge itself' (Miller, 2008; 963). Socrates taught by asking questions and thus drawing out answers from his pupils. A series of questions were asked by Socrates and they were used as to cross-examine a person or a group's claims and premises in order to reveal out a contradiction or internal inconsistency among them. Individuals have the capacity to recognize contradictions, so Socrates assumed that incomplete or inaccurate ideas would be corrected during the process of disciplined questioning, and hence would lead to progressively greater truth and accuracy

This Socratic method of inquiry is employed for several purposes. First, it is an inspiring process. The questions are asked not only to draw individual answers, but to encourage people's fundamental insight into the issue being discussed. It is a form of inquiry based on asking and answering questions to stimulate critical thinking and to illuminate ideas. Second, it is also a disciplined process in training people's thinking ability. Paul (1993) identifies six categories of Socratic questions that serve to frame a critical exploration of the relationships between elements of a given issue, namely "questions of clarification", "questions that probe assumptions", "questions that probe reasons and evidence", "questions about viewpoints or perspectives", "questions that probe implications and consequences", and "questions about the question". Questions not only help learners gather information and clarify ambiguous issues, they also guide the participants though a deep exploration of their assumptions and reasoning in relation to the issue (Brown et al., 2009: 208). The impact of this method was prominent at that time in that Aristotle attributed to Socrates the discovery of the method of definition and Inductive Method of reasoning, which were regarded as the essence of the scientific methods. The development and practice of this method is one of Socrates' most enduring contributions and its influence is even strongly felt today, when hypothesis is the first stage in a scientific research.

---

[5] It means the argument of disproof or refutation; cross-examining.

Furthermore, this rigorous inquiry scrutinizes the basic assumptions and the popular opinions we have. According to W. K. C. Guthrie's *The Greek Philosophers*, while sometimes taken as the method by which one seeks an answer to a problem or knowledge, the Socratic Method was actually intended to demonstrate one's ignorance. Socrates, unlike the Sophists, did believe that knowledge was possible, but he pointed out that the first step to knowledge was recognition of one's ignorance. Socrates often claimed that he knew nothing; however, the only way that he was wiser than other men was that Socrates was conscious of his own ignorance, while they were not. According to Guthrie, the essence of the Socratic Method is to convince the interlocutor that whereas he thought he knew something, in fact he does not. Socrates himself professed his ignorance. Socrates believed that his awareness of his ignorance made him wiser than those who, though ignorant, still claimed knowledge; and "the life without examination (dialogue) is not worth living". It was with this in mind that the Socratic Method was employed, in which questions were used to elicit contradictions form the responses, thus exposing the ignorance of each belief and motivate a deeper inquiry into the concepts. In this process, misconceptions could be corrected and participants were led to reliable knowledge construction.

The Socratic Method acts as a new approach to education. As teaching is often viewed as pouring water into the empty cups, Socrates claimed that he was not himself a teacher (in *Apology*). Rather, his role, he claimed, was more properly to be understood as analogous to a midwife[6]. As a philosophical interlocutor, Socrates led his respondent(s) to a clearer conception of wisdom and helped them recognize on their own what is real, true, and good (in Plato's *Meno* and *Theaetetus*). Socrates explained that he was himself barren of theories, but he knew how to bring the theories of others to birth and determine whether they are worthy or mere 'wind eggs'. This method is designed to bring out definitions implicit in the interlocutors' beliefs, challenges accuracy and completeness of thinking, helps people further their understanding so that people may move towards their ultimate goal.

Till today, the influence of Socratic ideas and approach remains strong in providing a foundation for the western philosophy. His method of argument remains a method widely used in Europe which allows for in-depth understanding of various issues concerning everyday life.

3. The Influence of the Socratic Tradition on Cambridge Practice

The ability of thinking and inquiry is particularly essential to a university education. Newman, in his *The Idea of a University* (1907) points out the mission of the University—University should be a place of education, rather than of instruction:

[6] In Plato's *Theaetetus* Socrates is portrayed as a midwife of the intellect.

'…knowledge is not a mere extrinsic or accidental advantage, which is ours today and another's tomorrow which may be got up from a book, and easily forgotten again…it is an acquired illumination, it is a habit, a personal possession, and an inward endowment And this is the reason, why it is more correct, as well as more usual, to speak of a University as a place of education, than of instruction… ' (1907: 113)

Then what is the concept of 'education'? Etymologically, education is an activity of leading out, since 'to educate', deriving from the Latin 'educare', means to lead out or bring out[7]. Hence education, at its root meaning, is closely related to a thinking or leading out activity. This emphasis on the mind and thinking is shared by Greek Socratic tradition and the mission of universities. As a matter of fact, the Greek inquiring mind and heritage of antiquity have always been objects of veneration for the University of Cambridge. As the second oldest university in England, the University began its training on thinking skills very early. According to Leedham-Green (1996: 2), as early as 1190s all seven of the liberal arts[8] (the trivium and quadrivium) were taught in Cambridge, with logic being one important subject of the trivium. In later years, Cambridge students were required to attend at least three ordinary lectures a week and to cover in their first year Aristotle's Praedicamenta, Perihermeneias and Topica, the first alongside Porphyry's Isagoge and the second alongside the Sex principia of Gilbert de la Porrée and Boethius' Divisiones. These constituted the 'Old Logic' and were followed in the second year by the 'New' consisting of Aristotle's Elenchi and his Prior and Posterior analytics. Thus, 'the student's powers of reasoning and disputation thus far developed, the third and fourth years were devoted to Aristotle's Physics …' (Leedham-Green, 1996, p. 18). Besides the courses on Old and New Logic, Cambridge students also received intensive training in dialectic, which were designed to provide them 'the basis for scholarship in any field, and a qualification in the arts faculty which might be sufficient to attract a benefice for their pains…' (Leedham-Green, 1996: 27)

The Socratic tradition is featured with leading out people's inner knowledge by questioning; and still today, questioning, thinking and interactions constitute a very important part of Cambridge educational life. Today, the teachings in Cambridge mainly take the form of lectures, seminars, workshops, and tutorials. Usually teachers will not allow scripted lectures to dominate their class. They think discussions are important too. Even during the teacher's presentation, students are welcome to interrupt and raise questions any time. In the lectures the teacher's presentation slides are usually provided, so that students can concentrate on their thinking and reflecting ideas rather than being busy taking notes. Sometimes even drinks and refreshments are provided in the classroom. In fact, almost everything has been done and it leaves the students doing what teachers most want them to do—thinking and disputing.

In seminars and workshops, there is more time for discussions so that students can further investigate on certain topics. Usually students take further a lecture's line of thought or express

[7] Ducasse (1986), 225.

[8] 'The liberal arts course was traditionally conceived as consisting of the *trivium* (grammar, rhetoric and logic) and the *quadviviatm* (arithmetic, music, geometry and astronomy) with the three philosophies (moral, natural and metaphysical): a scheme that can be traced back to late antiquity (Leedham-Green, 1996, p. 18)

their disagreement on a certain point. As both teachers and students place positive associations on innovative and new ideas, students are more likely to speak up in a large group; and conflict in learning is seen as a way of advancing ideas and knowledge. Notions of face are weak. One of the students who have studied in Cambridge for four years confirms: 'We are used to learning from others through discussions in groups. Although reading is important, we need to learn through talking, such as with our classmates and friends.'

Besides lectures, seminars and workshops, tutorials are essential part of teachers' work in Cambridge. Tutorials are usually in the form of a small group, a tutor and perhaps only one or two students meet often enough to get to know one another. They may discuss about questions connected with the work that the student(s) did, often on the basis of the student's essay. One Cambridge student reflects that it is her experience that the smaller the scope for one tutorial the better. 'We always benefit a lot from tutorials. The questions and answers are more focused.' She even mentions that sometimes notebooks are forbidden by her tutor in tutorials because according to her tutor, the appearance of the notebook will turn the conversation of the tutorial into a teaching hour.

Then what is teacher's role supposed to be in the whole teaching process? Cambridge teachers usually regard themselves as students' facilitators of learning. 'We are just facilitators to help our students in identifying the question and in researching the answer…' answers one Cambridge teacher. The teacher's task is to use talk to promote thinking and to ensure a learner's active participation and engagement in the thinking process. They do not think of themselves as authorities of knowledge, rather, they may even admit their ignorance on a topic. More importantly, they give students freedom in expressing their different ideas and encouraging a diversity of views. Generally, they do not easily become angered by students' challenging questions as Chinese teachers would. Furthermore, they would usually extend 'waiting time' and withholding evaluations; and they do not usually directly give the answer to a particular question. 'What we stress is students' thinking and discussion. So we encourage students to be active in classroom discussions and praise critical and daring ideas,' says one Cambridge teacher. The pace of interaction varies, according to the needs of teaching and learning at any time.

Here, in Cambridge, the strong influence of Socratic tradition can be felt. Questioning and interactions are indispensable parts of the teaching and learning process. Questions are structured so as to provoke thoughtful answers and answers usually provoke further questions and are seen as the building blocks of dialogue rather than its terminal point. All the questioning and interactions serve as means to an end, which is to improve learners' thinking, analytical and problem-solving skills. In discussions, teachers and learners express their reasoning, creating, justifying and evaluating ideas; responsively and cumulatively building on others' ideas, and construct new meanings and interpretations (Mercer and Littleton, 2007). The view of higher education in Cambridge is not to show students where, what and why of the subject matter, but to guide students to learn

how to learn. Teachers want their students to be **creative thinkers**. Through discussions, students learn to think creatively by generating ideas and exploring possibilities. First, students realize that there is no one answer to a question—different ways are available to tackle a problem; so the education process becomes about asking the right questions and finding ways to investigate those questions. More importantly, by working with others, they may find imaginative and creative solutions to the problems. In Cambridge, teachers also want their students to be **reflective learners**. By communicating their ideas and learning for different audiences, students question their own and others' assumptions. In the workshops, they may invite feedback from others and make changes to further their learning. Thus they can reflectively evaluate their own strengths and limitations, assessing themselves and others and identifying orientations for their future development.

4. Realities of Chinese University Practice

A common criticism of East Asian classrooms, Chinese ones in particular, is that while they may be effective for transmitting reproductive knowledge and for learning skills, creativity is stifled. Research on creativity found that Chinese students had lower fluency, flexibility, and originality scores in standardized tests than students in North America (e.g., Jaquish and Ripple, 1984, 1985). Spinks et al. (1996) investigated the implicit views that teachers in China have of their ideal and creative students. The ideal pupil matched closely the everyday representation of the good Chinese child, characterized by adjectives such as self-disciplined, respectful of parents, and diligent, whereas the creative students matched closely the universal definition of creative person (Torrance, 1965), characterized by adjectives such as curious, assertive, and independent. Spinks et al. concluded that the great difference observed between teachers' views of the ideal student and of the creative student suggests that the Chinese education system discourages exploration and challenge-taking (Moneta, 187).

Despite the great progress made in recent years, there still remains a great gap between Chinese and western educational approaches. In Chinese universities, teacher-led lectures dominate the class, with few discussion sessions and even fewer tutorials. In most lectures, teachers still use the didactic and 'scripted' presentational approaches, with students listening and taking notes of the facts. Teachers are viewed as authorities of knowledge, and their task is to deliver the curriculum to learners. Therefore, the class is very much teacher centered and knowledge is offered from the teacher's perspective. On the other hand, Chinese students are known as being obedient to authority, passive in class, lacking in critical thinking and adopting inadequate learning strategies (Atkinson, 1997; Ballard & Clanchy, 1991; Carson, 1992; Flowerdew, 1998; Fox, 1994; Hammond & Gao, 2002; Liu, 1998). There is insufficient training in logic, and hardly any course devoted to training learners' thinking skills. As a result, students do not have many opportunities to express their thoughts clearly in words—they are shy, or don't necessarily know how to do this.

Chinese current practice in learning is probably in line with what Tikva (2010: 657) notes, the transmission model of learning, in which the teacher is the sole authority and source of information and the learner's role a receiver. Teacher's role is to effectively transmit facts or processes, explain the what, why and where of the subject matter, and present new knowledge using known principles and logic (Berliner, 1986, Borko & Livingstone, 1989, Cobb, 1988, Tirosh & Even, 2002). Studies on the teaching of various kinds of subject matter indicated a number of strategies employed by the teacher: presentation and demonstration of accurate, explicit information, explanations that clarify concepts and procedures, use of examples, and connections between new and previously-learned material (Leinhardt, 1989). In this process, the learner's role is relatively passive. Apart from answering the teacher's questions or raising questions on occasion, the learner is mostly a listener. It is the teacher who feeds endless content or 'facts' to learners to remember.

There are cultural, historical, and social reasons for the above-mentioned phenomenon. First, in the Chinese culture, which is a collectivist one, there is much emphasis on hierarchy, and there is a distinction between in-group/out-group relationships and the concomitant role of trust (Holmes, 2005). For example, students would expect 'paternalistic leadership' from their teacher. According to Jin (2006: 12), 'in the central relation between teacher and student, the teacher is often regarded as an authoritative parent to whom respect and obedience are due, but this classic image of the relationship of filial piety overlooks the reciprocity of caring, concern and cherishing which also characterizes it in Chinese tradition. 'Communication in the Chinese classroom is heavily affected by this notion; and the power distance between the teacher and students results in students speaking only when required. For many Chinese students, challenging and questioning the ideas of the teacher may appear foolish and time-wasting and potentially cause loss of face to all concerned and disrespect to the teacher. A Chinese student in our study explains, 'I think challenging the teacher in the class is pointless. You just learn from the teacher. If you occupy too much time in the class to show that you are the brightest one, I think it's showing off and you are wasting others' time as well.' Another participant commented that if his question is 'stupid', then he will lose face and appears 'silly' in front of the whole class. Chinese students in this study preferred to address teachers in a one-to-one context, for example, after class, where their linguistic competence was not exposed and their questions were not open to evaluation by the whole class.

Liu (1986) and Moneta (187) confirmed that Chinese students learn more behavioral rules than Westerners do, and they tend to consider them all before reacting to a stimulus. Therefore, Chinese students are likely to grow up with a disposition to avoid tasks that are too novel and challenging, and to tackle challenges with prudence, utilizing as much as possible previously acquired knowledge and skills. In addition, **harmony** and **saving face** are very important attributes in collectivist cultures. The ingroup is supposed to be homogeneous in opinion. Unlike individualistic cultures in which confrontations within the ingroup are acceptable and are supposed to be desirable, hierarchy and harmony are important defining attributes of collectivists (Triandis et al., 1007).

Rather than discussion and interactions among peers, Chinese students value continuous efforts on their own in learning. It is exemplified in the teaching of the philosopher Zhu Xi (1130–1200), whose detailed school and academy curriculum remained the standard in China from 1313 to 1905, notably for the long-lasting civil service examinations, but also from primary school through to higher education.

'In learning we have to read for ourselves, so that the understanding we reach is personally meaningful. . . reading must be an experience personally meaningful to the self . . . in reading we must first become intimately familiar with the text so that its words seem to come from our own mouths. We should then continue to reflect on it so that its ideas seem to come from our own minds. Only then can there be real understanding.'[9]

This indicates the aspect of Chinese cultures of learning of making a disciplined effort and memorising texts, which is in line with a transmission model of learning, rather than a creative one.

Undoubtedly, all the environmental elements in the Chinese educational system might contribute to sustaining such an approach to learning as well. Teachers are often under immense pressure to 'deliver' the curriculum, and there are factors as teachers' heavy workloads, over-lecturing, or surface assessment demands. In particular, exams act as maybe the only selecting scheme in such a populous country as China. Hammond & Gao (2002) observes the severe outcome: 'As competition to succeed has increased, education has tended to become test-oriented. This competition has tended to favor an education system where learning is fragmented, linear, competition-oriented and authority-centered, and where there is little collaboration, creativity or communication among students or with the teacher.' In such a case, students expect a quick result or they just want to get to know how to do rather than to organize information and solve problems by themselves.

5. Implications on Chinese Higher Education

As what we have studied in the second part, the Socratic tradition and approaches have at least two features. First, it promotes dialogues between the teacher and learners and interactions among learners themselves. Second, in this critical inquiring process, learners' thinking ability and skills are very much emphasized. Therefore, learning from the practice in the University of Cambridge, especially the Socratic tradition, we could find two aspects of implications on Chinese higher education: first, learning should come from interactions besides one's own effort on reading and inquiry; and second, more thinking rather than memorization should be employed in the learning process. Teachers and education policy-makers should be aware that what is taught can no longer equal to what is learnt. The introduction of the Socratic tradition, with its emphasis on interactions and thinking, is a critical tool in empowering students and liberating

[9] This quotation could also be found in Gardner (1990, p.148) and Jin (2006, p.12).

their enquiring and analytical abilities.

First, more dialogues and questioning should be introduced into the Chinese school classroom.

Socrates taught by asking questions and thus drawing out answers from his pupils, and Socratic Method itself is a method of investigating problems through dialogue discussions. Dialogues and discussions help get students involved in the material being taught and capture their interest. In schools, more seminars and workshops should be introduced so as to create more opportunities for students to talk so that they will be more confident speaking in class. More important is to make gradual changes in people's mentality and views towards the importance of dialogues and discussions. Students should be told that discussion sessions are not mere time-wasting. The genuine and creative ideas cannot be from the teacher; rather, they are generated within one self. Usually they come from the discussions and the collaborative work of learners, in which they exchange ideas, help illuminate and inspire one another, and *debate and explore* issues. Sometimes they try out alternatives or new solutions and follow ideas through. Discussion is also a peer-learning process. Learners carefully listen to one another instead of interrupting, and others' opinion from other perspective can help shape one's own ideas. Of course, this is an exploratory effort in searching for truth. The endeavour of the group is not to reach consensus, but as a means to deepen the investigation, which requires an honest examination of the thoughts of each participant and an open attitude towards other' feelings and thoughts.

Questioning is also very important in the classroom teaching and learning process. In the case of Socrates, questions are mainly from the teacher. Socrates questioned groups of his students as a means of instruction. He aimed to compel them to think a problem through to a logical conclusion. In this time-honored technique, the teacher asks a series of questions that lead the students to examine the validity of an opinion or belief. These questions are usually problem centered. The dialectic begins with a problem which must be analyzed. Then, the teacher would use questions to clarify students understanding the details of the issue. Questions are also formulated to test logic and facts. To solve a problem, questions are often broken down into a series or pieces, the answers to which gradually distill the answer a person would seek. This is a powerful teaching method because it actively engages the learner and promotes critical thinking. The method is also dramatic and entertaining, and it triggers lively classroom discussion.

On the other hand, students' ability of questioning is equally, if not more, important in the learning process, and therefore, should be encouraged. As a matter of fact, many findings, especially in science, are not driven by answers but by questions. In fact, almost every intellectual field is born out of a cluster of questions to which answers are either needed or highly desirable. Without questions one can hardly imagine the development in a certain field. However, many Chinese teachers may not yet be accustomed to being questioned by their students. Instead, they insist on feeding students endless content to remember whose mind is maybe already at rest. Actually students need questions to turn on their intellectual engines and

they must themselves generate questions from our questions to get their thinking to go somewhere. That's why we say only students who have questions are really thinking and learning. The questions we ask determine where our thinking goes. To think through, one must ask questions that stimulate thought. If we want to engage students in thinking through our content we must stimulate their thinking with questions that lead them to further questions. Answers on the other hand, often signal a full stop in thought.

The discussion and interaction process can be conducted in small groups so that each participant can have more chances of talking and thereby their confidence can by enhanced. Acting as a facilitator during the communication process, the teacher stimulates the discussion with probing questions and engages students in an active discussion. Once teachers and students learn to dialogue, they find that the ability to ask meaningful questions that stimulate thoughtful interchanges of ideas is more important than 'the answer'. Talking requires students to think, and put their thoughts clearly and logically in words. Thoughts and opinions of each participant should be respected and taken seriously; and teachers are required to prolong the 'waiting time' and delay judgment or evaluation of students' performance during discussion sessions.

Second, the role of thinking rather than memorization should be promoted in the whole teaching and learning process.

The Socratic Method encourages participants to reflect and think independently and critically, and in this process talking and listening are used for thinking. We can ask students to trace out the implications and consequences of what they are saying; and in this way the student is held responsible for his statements. The teacher analyzes some of the possible consequences of the student's remarks. The emphasis is upon the thinking processes of the student, who must think for himself and accept the consequences of his logic. More importantly, Socratic Method helps to create autonomous thinkers. Socrates was convinced that disciplined practice of thoughtful questioning enables the student to examine ideas logically and to be able to determine the validity of those ideas. The Socratic Method searches for general, commonly held truths that shape opinion, and scrutinizes them to determine their consistency with other beliefs. During disciplined, carefully structured questioning, students must slow down and examine their own thinking processes (i.e. reflective thinking). Key concepts and ideas are analyzed，alternative points of view are considered and assumptions are questioned, thus people can probe into the nature of the question, problem, or issue. Build upon potential fallacies or errors for discovery and discussion, the reasoning process must be considered more important than pre-conceived facts or beliefs. In this way, students' thinking skills can be trained in the process of reasoning, generating, justifying and evaluating ideas.

It is more important to enable students to think for themselves than to merely fill their heads with 'right' answers. Socrates regularly engaged his pupils in dialogues by responding to their questions with questions, instead of answers. This process encourages divergent thinking rather than convergent. The most important point in all

this is the autonomy in thinking: philosophical insights are gained only by those who engage in the process of knowing in their own mind. Knowledge transmission is important, however, creativity is more crucial for future development. It is one of the aims of education that each man must develop his skill in critically appraising propositions through the reasoning process. The Socratic Method encourages students to reason critically rather than appealing to authority or use other fallacies. Open-ended questions and brainstorming allow students to think critically and creatively.

As a matter of fact, Chinese culture of learning is not all about memorization and passive way of learning. Rather, there is a very positive element in the Chinese traditional way of learning which values active and reflective thinking, open mindedness and a spirit of inquiry**.** As the 'First Teacher' of China, Confucius (551-479 B.C.) indissolubly linked learning with thinking, as he argued 'to learn and never think – that's delusion. But to think and never learn that is perilous indeed. '[10] This Confucian idea link continuous effort with fostering independence of mind in a willingness to doubt others' views as well as one's own preconceived ideas. It is also his idea that 'In reading don't force your ideas in the text. You must get rid of your own ideas. . .'; 'the student must first of all know how to doubt'[11]. Zhu Xi (1130–1200 A.D.), another influential scholar in China, took up the above sayings from the Confucian classic of *The Mean* and elaborated into a five-step process for learning from any worthwhile text: 'Study it extensively, question its meaning precisely, ponder it with full vigilance, scrutinize its distinctions with clarity of vision, practise it in all earnestness'[12]. This model for learning practices promotes a deeply reflective, enquiry-based, experiential way of learning.

In order to make changes in education, Chinese teachers should get trained and first change their preconceived concepts.

In China, the very common teaching practice is described as 'filling the ducks.' During the class, teachers would talk a lot and they are viewed as pitchers pouring their contents into the empty cups, i.e. students' minds. However, what the teachers have taught probably cannot match what students have learned—there is a gap in between. For Socrates, teaching is drawing forth rather than telling. In the Socratic Method, the teacher does not tell the student the proper answer; instead, he draws from the student the probable answer. In Socrates' mind, education is the kindling of a flame, rather than the filling of a vessel. The Socratic questioning method proposes that if people strive to ask critical questions, they will ultimately produce more knowledge than if they focus on seeking the single 'right' answer (Brown et al. 2009, p. 208).

Of course, there are high demands on teachers if they are engaged in Socratic method and dialogue. During the Socratic questioning, the teacher is supposed to be a model of critical

[10] *学而不思则罔，思而不学则殆. Xue er bu si ze wang, si er bu xue ze dai.*
[11] *Analects* II: 56.
[12] Zhu Xi, 91.

thinking who respects students' viewpoints, probes their understanding, and shows genuine interest in their thinking. Initial questions are posed so that the novice of a given topic might develop some arguments. When learning is viewed as discovery, students are given the chance to experience the attendant joy and excitement of discovering (often complex) ideas on their own. Student learns when he discovers the true generalization through his reasoning processes. In the discussions, students are given freedom in expressing their different ideas and a diversity of viewpoints is encouraged. Students are promoted and encouraged to think, and express their views on certain issue. Teachers engaged in this type of dialogue should be responsive to students' need. All thoughts are treated as in need of development; and all assertions are regarded as connecting points to further thoughts. In the Socratic way, comments from students are responded with a further question which calls upon the respondent to develop his/her thinking in a fuller and deeper way. Thus, the teacher creates and sustains an intellectually stimulating classroom environment and acknowledges the value of the student in that environment. In an intellectually open, safe, and demanding learning environment, students will be challenged, yet comfortable in answering questions honestly and fully in front of their peers.

The idea of teachers should draw out rather than telling can be found in Chinese own culture heritage as well. The pre-Confucius Li Ji classic notably links 'a good teacher' with guiding students to think for themselves: In his teaching, the superior man guides his students but does not pull them along; he urges them to go forward and does not suppress them; he opens the way, but does not take them to the place. Guiding without pulling makes the process of learning gentle; urging without suppressing makes the process of learning easy; and opening the way without leading the students to the place makes them think for themselves. Now if the process of learning is made gentle and easy and the students are encouraged to think for themselves, we may call the man a good teacher (Jin & Martin, 2006: 14).

The Socratic tradition can lend some inspirations for Chinese educational policy makers and related departments as well. For example, the concept of 'paternalistic leadership' of the teacher in the teaching and learning process should be lessen and weakened. Only when there is less or even no such a power distance between the teacher and students, can we have a real dialogue in the classroom. As for the course design, more proportion should be given to students' training in thinking skills so as to substantially enhance their analytical and problem-solving skills. More efforts should be given in introducing the concept of 'critical thinking' to foster autonomous thinkers who can refute, argue and build up one's own knowledge. The analytical skills of developing logical and coherent argumentation will be greatly needed in their future academic development. Another important and urgent task for education administrations is to alleviate teachers' heavy workloads, and emancipate them from the pressure of 'delivering' the curriculum and coping with the national exams, so that teachers can have more freedom in the teaching process. Last but not least, the format and content of exams needs improvement as well. If exams usually have an orientation role, then, the focus should lead to the improvement of students' abilities in expressing their own opinions and

solving problems rather than mere the memorization of facts, as the former will be more beneficial in their personal future development and the country's growth. All in all, there is a challenge for the Chinese authorities to change from the current education system 'where learning is fragmented, linear, competition-oriented and authority-centred' to one with more collaboration, creativity and communication among students or with the teachers.

6. Conclusion

Socrates is a Greek philosopher whose way of life, character, and thought exerted a profound influence on ancient and modern western philosophy. His dialectic method, or method of investigating problems through questions and dialogues, comes to be known as the Socratic Method. Socratic Method is a dialectic method of inquiry, which uses cross-examination of someone's claims and premises in order to reveal a contradiction or internal inconsistency among people's thoughts. In the ancient Greece, Socrates used this approach to question people's unwarranted confidence in the truth of popular opinions and to undermine the plausibility of widely-held doctrines—to reveal one's ignorance. The development and practice of this method is one of Socrates' most enduring contributions to the world and it is also viewed as a key factor in earning his position as a forefather of western philosophy.

The influence of Socratic tradition is even strongly felt today. The Etymological perspective of education, which is to bring out, is congruent with the Greek Socratic tradition. The Greek inquiring mind and heritage of antiquity have always been objects of veneration for the University of Cambridge. The University began its training on thinking skills very early. The Socratic tradition is featured with leading out people's inner knowledge by questioning; and still today, questioning, thinking and interactions constitute a very important part of Cambridge educational life. A series of questions are often posed to help students to determine their underlying beliefs and the extent of their knowledge. Here, the Socratic questioning method is intended to be non-confrontational, with its aim to explore and develop new insights and to foster a reflective, reasoned and logical approach. The innovations and creativity in western universities witness and testify the impact of Socratic tradition on today's academic world, and the University of Cambridge is just one example.

The Socratic method, with its emphasis on reflection and logic, is regarded by many as 'the most powerful teaching tactic for fostering critical thinking' (Paul & Elder 2006, p. 2; Brown et al. 2009, p. 208). It has significant implications on Chinese education practice. Due to the cultural and social reasons, Chinese culture of learning is known to be in the knowledge transmission model—the importance of facts and the role of memorization are very much emphasized during the learning process. In contrast, critical thinking is at the heart of the Socratic tradition, in which people reflect on, access and judge the assumptions underlying their ideas and actions. In this paper, some suggestions are put forth for the Chinese educational institutions. First, discussions, dialogues and the spirit of questioning should be promoted in the

teaching process. These include dialogues between the teacher and students and the discussions among students. More chances of speaking can enhance students' self-confidence in formulating and expressing their own thoughts. Especially in the context of Chinese education, more perspectives are needed so as to gather information to inform decision-making. Socratic questions help to improve people's accuracy and completeness of thinking in a way that acts to move them towards their ultimate goal. Discussions and dialogues help students extend thinking and explore issues, events or problems from different perspectives. Through interactions, they discuss complex topics in order to expose the underlying issues. Thus, their critical thinking and problem solving skills can be improved. Furthermore, training sessions on thinking skills should be encouraged to improve students' ability in analyzing problems. Socratic questioning helps students to think critically by focusing explicitly on the process of thinking, which includes testing and scrutiny (esp. for purposes of refutation). This is the central technique of the Socratic Method.

In order to ensure the above changes, it is suggested that teachers should receive training in this practice of inquiry. Chinese teachers often view themselves as pitchers pouring their contents into the empty cups of students' mind or fill what is in the textbook into ducks, the students. However, in the Socrates approach, Socrates never saw himself a transmitter of information that others were passively to receive. Therefore, teachers should change to a new education approach, which featured teaching by asking instead of by telling; and there is a shift of the teacher's role from didactic to more responsive, from a speaker to a listener. When the teacher asks questions and thus draws out, s/he helps students to construct their own knowledge and truly supports the active and student-centered learning. This is also helpful for students' long-term retention of knowledge. In addition, there is a challenge for educational policy-makers and related departments as well. Trainings of thinking skills should be added in the school education and teachers' heavy workload should be alleviated, so that it will be possible for the teachers to act according to pace of students learning rather than pace of curriculum.

The Socratic Method is a deeply reflective and enquiry-based way of learning. Thinking and questioning will help us bring out the inner knowledge, test our preconceived ideas, enlighten our mind and lead to the truth. Today, the world-renowned University of Cambridge ushers in its 800th anniversary; and China has its crucial time of development in the modern world of globalization. The future of Chinese education can no longer rely exclusively on the knowledge transmission model. Instead, students should know how to think, how to come up answer of their own; they should be empowered with brilliant ideas. There is much for the Chinese educational institutions to draw from the Socratic tradition—at least an inquiring mind which is essential for fostering innovation and creativity, which is the key for the future.

References

Atkinson, D. 1997. A Critical approach to ritical hinking. *TESOL Quarterly* 31/1: 71–94.

Ballard, B. and Clanchy, J. 1991. *Teaching Students from Overseas: A Brief Guide for Lecturers and Supervisors*. Melbourne: Longman Cheshire.

Brown, Cary A; Bannigan, Katrina; Gill, Joanna R. 2009. Questioning: a critical skill in postmodern health-care service delivery. *Australian Occupational Therapy Journal* 56: 206-210.

Carr, David. 2000. Exploring theory and practice in moral education. In Bob Moon, Miriam Ben-Peretz and Sally Brown (eds.). *Routledge International Companion to Education*. London: Routledge: 15-20.

Carson, J. 1992. Becoming biliterate: first language influences. *Journal of Second Writing* 1: 37–60.

Cookson Jr., Peter W. 2009. What would Socrates say? *Educational Leadership* 67: 8-14, ().

Ducasse, C. J. 1958. What can philosophy contribute to educational theory? In J. Park (ed.). *Selected Readings in the Philosophy of Education.* NY: Macmillan: Introduction to Part 1, Chap. 1.

Fox, H. 1994. *Listening to the World*. Urbana, IL: National Council of Teachers of English.

Flowerdew, L. A. 1998. Cultural perspective on group work. *ELT Journal* 52/4: 323–328.

Gardner, H. 1989. *To Open Minds*. New York: Basic Books.

Gardner, D. K. 1990. *Learning to be a Sage.* Berkeley: University of California Press.

Gieve, Simon & Clark, Rose. 2005. The Chinese approach to learning: cultural trait or situated response? the case of a self-directed learning programme. *System* 33: 261-276.

Hammond, S. & H Gao. 2002. Pan Gu's paradigm: Chinese education's return to holistic communication in learning. In: X. Lu, W. Jia & R. Heisey (eds.). *Chinese Communication Studies: Contexts and Comparisons*. Westport, CT: Ablex: 227–244.

Holmes, Prue. 2006. Problematising intercultural communication competence in the pluricultural classroom: Chinese students in a New Zealand university. *Language & Intercultural Communication* 6: 18-34.

Huang, Jinyan & Kathleen Brown. 2009. Cultural factors affecting Chinese ESL students' academic learning. *Education* 129/4: 643-653.

Jaquish, G.A. & R.E. Ripple. 1984. Adolescent divergent thinking: a crosscultural perspective. *Journal of Cross-Cultural Psychology* 15: 95–104.

Jaquish, G. A. & R.E. 1985. Ripple. A life-span developmental cross-cultural study of divergent thinking abilities. *International Journal of Aging and Human Development* 20: 1–11.

Jin, Lixian & Martin Cortazzi. 1993. Cultural orientation and academic language use. In D. Graddol, L. Thompson & M. Byram (eds.). *Language and Culture*. BAAL and Multilingual Matters: Clevedon 5:122-144.

Jin, Lixian &Martin Cortazzi. 2006. Changing practices in Chinese cultures of learning, language. *Culture & Curriculum*. 19 (1): 5-20.

Leedham-Green, Elisabeth. 1996. *A Concise History of the University of Cambridge*. CUP.

Liu, D. 1998. Ethnocentrism in TESOL: Teacher education and the neglected needs of international TESOL students. *ELT Journal*. 52:3–10.

Maskell, Duke & Ian Robinson. 2001. *The New Idea of University*. London: Haven Books.

Mercer, N. & Littleton, K. 2007. *Dialogue and the Development of Children's Thinking*. London, Routledge.

Miller, Darcy. 2008. Learning strategies. In Neil J. Salkind and Kristin Rasmussen (Eds.), *Encyclopaedia of Educational Psychology*. London: Sage Publications: 955-973.

Moneta, Giovanni B. 2004. The flow model of intrinsic motivation in Chinese: cultural and personal moderators. *Journal of Happiness Studies* 5 /2: 181-217.

Newman, John Henry Cardinal. 1907. *The Idea of A University: Defined and Illustrated*. London, New York, Bombay: Longmans, Green Co.

Noddings, Nel. 2007. *Philosophy of Education*. 2nd ed. Colorado: Westview Press.

Ouyang, H.-H. 2000. One way ticket: a story of an innovative teacher in Mainland China. *Anthropology and Education Quarterly* 31: 397–425.

Oxford, R. 1995. A cross cultural view of learning styles, *Language Teaching*. 28: 201–215.

Paul, Richard. 1993. *Critical Thinking: How to Prepare Students for a Rapidly Changing World*. Cambridge: CPU.

Paul, R. & L Elder. 2006. *The Thinker's Guide to the Art of Socratic Questioning*. Berkeley, CA: The Foundation for Critical Thinking.

Pusch, M. D. 1979. *Multicultural Education*. NY: Intercultural Press, Inc.

Senchuk, Dennis M. 1995. Philosophy of education. In Robert Audi (Ed.). *The Cambridge Dictionary of Philosophy*. 2nd ed. Cambridge: CUP: 855-890.

Sichel, Betty A. 1996. Socrates. In J. J. Chambliss (Ed.). *Philosophy of Education: An Encyclopedia*. New York: Garland Publishing, Inc.: 615-616.

Spinks, J.A., L. Mei-Oi Lam & G. Van Lingen. 1996. Cultural determinants of creativity: an implicit theory approach. In S. Dingli (ed.). *Creative Thinking: New Perspectives.* La Valletta, Malta: Malta University Press.

Sullivan, Paul; Smith, Mark & Matusov, Eugene. 2009. Bakhtin, Socrates and the Carnivalesque in education. *New Ideas in Psychology* 27: 326-342.

Tikva, Judith Bar. 2010. Socratic teaching is not teaching, but direct transmission is: notes from 13 to 15-year olds' conceptions of teaching. *Teaching & Teacher Education* 26: 656-664.

Teichman, Jenny & Katherine C. Evans. 1991. *Philosophy: A Beginner's Guide*. 1st ed. Oxford: Basil Blackwell Ltd.

Torrance, E.P. 1965. *Rewarding Creative Behavior*. Prentice-Hall: Englewood Cliffs.