Developing Effective Learning and Teaching in Higher Education

Zhuo Zhang

School of Economic and Management Engineering, Beijing University of Civil Engineering and Architecture, China Email: zhangzhuo@bicea.edu.cn

Xiaojing Zhou

School of Economic and Management Engineering, Beijing University of Civil Engineering and Architecture, China Email: guanlixi@bucea.edu.cn

Abstract—This paper compares the China's learning and teaching methods with the western countries' to find out a more effective related pattern in higher education appropriate to China's practices. Then alternative methods are found to explore the potential of effective teaching and learning with a SWOT analysis of current Chinese teaching situation.

Index Terms—higher education, learning and teaching pattern, SWOT analysis

I. INTRODUCTION

Nowadays, most Chinese universities adopt a great diversity of teaching and learning methods to help cultivate large numbers of qualified graduates to satisfy practical need of Chinese economy's rapid development. However, not all of these teaching and learning methods have reached anticipative effect, and compared with some western countries' highly developed educational explore, Chinese universities have a long way to go and the potential of learning and teaching in higher education is also huge.

In this article, we would have a try to find out a more effective learning and teaching pattern in higher education appropriate to China's practices by comparing the china's related methods with the western countries' (including UK). Then alternative methods are found to explore the potential of effective teaching and learning with a SWOT analysis of current Chinese teaching situation on the basis of summarizing my self-reflection.

II. THE COMPARISON OF THE CHINA-WESTERN EDUCATION

A. The Comparison of Education Theory of Human Nature

From mainstream culture and mainstream education, China's educational philosophy, in essence, is based on "evil" human nature, it is assumed that students are not very worthy of trust and respect in the minds of teachers. However, the teaching concept of western education is established on the basis of "good" human nature, that is, the students are worthy of trust and respect in the minds of teachers. The difference of human nature assumption is one of fundamental reasons making Chinese and Western education different.

From the point of Chinese educational philosophy, teachers in the instinctive idea assume that their students are more inclined to be some kind of "evil", which means students are not always sensible, not quite consciously, not quite well-behaved, and therefore, students is not quite worthy of trust and respect, and must be kept in strict discipline on them and constraints. Otherwise, students are likely to violate the wishes of educators and do what should not happen. Thus, in Chinese education system, suspicion is far more than trust, contempt is much more than respect, criticism is far more than praise, inhibition is much more than encouragement, and stipulation is far more than freedom. In Chinese teacher's subconscious, if they do not pay more attention to their students, students probably do what they don't expect to come. Teachers often consider the management of education to be the one-sided understanding of the control and obedience, rather than activation, mobility and creation. This educational philosophy is established on the basis of "evil" human nature assumption lacking of resection and trust.

In the Western philosophy of education, teachers instinctively are more inclined to consider their students to be "good", namely, students' nature is good, and they are worthy of trust and respect. Otherwise, the original Latin is impossible to endow education the meaning of "elicit" and "Export". The education after the Renaissance can not be filled with the liberation of humanity and respect for people's natural instinct and assertive individual freedoms implication. Generally speaking, in Western education, including British education, the teachers give more trust than suspicion to their students, more praise than criticism, more tolerance than hypercriticism, more encourage than suppression, more freedom than constraint. The relationship between teachers and students is more friendly and less of confrontation and tension. As students gained more trust and freedom, their consciousness, self-control and sense of responsibility are relatively strong.

B. The Comparison of Education Direction

In the concept of some Chinese teachers, students are passive recipients who know little. If there is no teacher to teach, students will achieve nothing, which is deeply rooted in China's educational concept. Therefore, China's educational theory and educational practice pay much more attention to teachers' teaching than students' learning with special emphasis on the authority of teachers. So, the status of teachers is above the one of students in the process of teaching. In the eyes of Chinese teachers, the so-called teaching is thought to be a process of exerting educational influence on students and delivering knowledge from "outside" to "inside". Students' brain is like some kind of vessels, and teachers are the traffickers of knowledge and morality. Students can only be educated, and can not learn anything without teachers' teaching. In Chinese teacher's idea, education means infusion to students from "outside" to "inside", infusion almost becomes education.

Western educational philosophy think students naturally have a God-given "seed" of the true, the good and the beautiful. The educational function lies in conducting and promoting this natural inhesion. Therefore, education is not the process of teaching something pre-setting and no-doubt into the brain of students, but is a process of conducting the talent out of students that is inherent.

Socrates, originator of Western education, called for "spiritual midwifery" type of educational methods, which best describes the teaching meaning and connotation of "extraction" and "export" in Western educational tradition. In Socrates, education programs seems like a midwife midwifery, teachers as midwives, students as maternal, fetus as God-given unyielding "seed", educating is just like the process of "mother" give the birth of "fetus" in the assistance of "midwife". This educational philosophy has a profound impact on the original nature of Western education.

C. The Comparison of the External Form of Teaching

Generally speaking, China's school teaching is very serious, stiff and solemn in terms of external form, and pay excess attention to its pursuit of purpose planning, organization, uniformity and standardization with little flexibility, randomness, contingency and a sense of humor. For teachers, this kind of teaching is very tired, and students are also hard to learn. Teachers teach rigidly and students' learning is also rigid.

In accordance with the requirements of formal classroom teaching, external specifications of teaching is paid much attention from the students' sitting position and voting position to teachers' arrange of the classroom phase of the state of division and allocation of time, and even the writing on the blackboard design, etc., all plans and specifications must be sought to ensure that the teaching is proceed step by step. In short, teachers have been too rigidly adhere to the teaching of the external form, and so teaching activities are full of heavy polishing flavor and artificial taste.

Thus the created atmosphere of teaching often makes teaching "The form gathering but the absolute being scattered", despite the surface form of teaching standards is very tight and students also focus their attention on the surface, the classroom is very possible lack of intrinsic appeal. Students may not develop a sense of excitement and thinking vitality. This teaching will make students feel an inner repressed, passive and non-self-confidence, which is not conducive to activate the inherent vitality of the students and active students think, also not easy to enable students to truly feel their dominant position.

In comparison, the classroom atmosphere in Western education seems more natural, flexible and has much more random, less binding, less rules, and less formalism. Teachers and students in teaching are relatively free, relaxed, active and flexibility. Teachers' teaching and students' learning are not required to follow the mandatory standards and uniform requirements, and do not have to comply with any unitary notion of truth and values, so teaching and learning design, teaching and learning content and the way of teaching and learning have greater freedom and flexibility. Although the students in the classroom do not have to sit straight and hands behind, and the classroom discipline appear to be somewhat noisy, chaotic, students in this relaxed atmosphere would be inherently feel relaxed and freedom, especially in terms of thinking. Students are more active, more dare to think, and do not fear anything, this teaching atmosphere often makes teaching "the form scattering but the absolute being gathered".

D. The Comparison of Relationship between Teaching Process and Teaching Results

In China, if students do not know or do not understand teaching content, the teachers are often very natural to draw a conclusion and to obtain conclusions directly presented to them, and very little by way of teaching and learning process and deep interaction with the students, and seldom guide students to take the initiative to analyze, synthesize, abstract, summary, compare, judge, selection, exploration, trial and error, and to raise questions, analyze problems and find out.

This kind of neglect on the teaching process is mainly manifested in two aspects: First, teachers are better used to educate and inject the ready-made knowledge and conclusions to the students directly; second, teachers are more accustomed "to teach on behalf of the study," that is, teachers substitute their students' learning process with teaching. In this teaching process, teachers use their own minds too much and the students' own thinking is substituted. Teaching content analysis, synthesis, abstraction, generalization, comparison, judge, selection are often completed ahead of schedule when preparing lessons, and not be able to more fully reflect in the process of interaction and communication of teachers' teaching and students' learning. Teaching and learning process, especially the students' learning process has been simplified too much. Obviously, such teaching not only distorts the meaning of "teaching", but also distorts the "learning" connotations.

In contrast, the western countries pay more attention to teaching process, rather than the results of teaching. It is more

concerned about the development of inner qualities and potential, rather than ready-made access to knowledge and conclusions.

It is based on this concept that both teachers and students are not agreed to the Chinese teaching, and the practice of teaching is more concerned with the interaction and communication between teachers and students, rather than mastering and memory of ready-made knowledge and conclusions. This kind of teaching method gives students enough space to explore, and teachers usually play a guide role and partners in an equal relationship.

In their view, the development of students' potential and the promotion of inner quality in large is realized in the process of teaching and learning and in the process of the exploration and the progressive realization of a two-way exchanges between teachers and students. The interests gained by students in learning also largely come from their learning experience and feeling.

From the angle of obtaining of knowledge and conclusions, this kind of teaching method seems too tortuous; it appears some waste of time. However, from cognitive development and potential development perspective, this teaching is valuable and efficient. In western educational theory, the greater emphasis is given on teaching process rather than teaching results. The intention of our teaching is not to build a small modern library, but to enable students themselves think like a mathematician mathematics, like the historians think of history as the process of making access to knowledge reflected. Knowledge is a process rather than a result. "

E. The Comparison of Teaching Emphasis' Object

Chinese education weighs community, western countries emphasize particularly on individual education. This is the fundamental difference of Chinese traditional family-based culture and western traditional individual-based culture on educational aims and value orientation.

The basic characteristics of traditional Chinese culture is to emphasize the unity and to neglect individual differences, that is, emphasizes on group and neglect the individual.

Ancient China took the maintenance of group co-ordination and social stability as the highest of ethical and political principles, put the community's overall interests of the individual interests as the sole frame of reference. The group's overall interests are the starting point and destination of the individual interests and include or are on behalf of the individual interests. For the group, the individual has more obligation than rights, more devotion than obtain. The value of the individual can only be realized in the whole society. Educational activities focus on "general" awareness and consciousness, neglecting in-depth dissection and analysis. Emphasis on group values has some positive significance on the cultivation of overall system for the students thinking ability,, but also to some extent induce despotism, repression, binding of human individuality and initiative.

Western cultural traditions pursue individual-based, self-centered culture, focusing on integrity and dignity. As early as in ancient Greece Bolikeli times, Protagoras proposed the proposition of "man is the measure of all things", affirmed the status of human subjectivity. These principles of promoting personal supremacy were written into the western textbooks.

Since then, most western educational thinkers took people who have personality and originality as the basic standard of training personnel, promoting people's autonomy and independence. Individualism is not stressed by competing interests, but rather on the defenders of personality of humanitarianism and human rights of human nature. Emphasis on individual value is in favor of development of individual initiative, but the individual-based thinking also makes the concept of kinship and clan groups indifferent.

By the above comparison, we can feel the huge differences between Chinese and western teaching concept and it also reflected many problems existing in Chinese education. However, generally speaking, it can not simply to say which educational philosophy is better and more effective. Each has advantages and disadvantages, has their special characteristics and excitement.

III. THE SWOT ANALYSIS OF CHINA-WESTERN EDUCATION

In the above, we draw the difference between Chinese teaching pattern and western countries and are aware of many disadvantages. However, the rapid development of China's economy provides great demand for excellent students; Chinese higher education also has a huge potential to satisfy the talents demand. Now, the development of effective educational methods is a priority. Here, SWOT analysis is applied to identify the internal and external factors and help find ways to improve Chinese teaching and learning problems.

SWOT analysis is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project or in a business venture. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favorable and unfavorable to achieving that objective. With the review of my teaching career in BUCEA, I made below SWOT analysis:

Strengths

- Teachers' higher teaching level
- The introduction of advanced teaching facilities raises teaching efficiency
- Stronger wishes of schools and teachers to improve teaching efficiency

Weaknesses

- Too much emphasis on teaching surface, ignoring the teaching content
- Students' learning initiative is not strong
- The weak interaction between students and teachers
- Teaching methods are few and of low-efficiency

Opportunities

- China's rapid economic development provides higher demand for improving teaching efficiency
- Western developed countries have a lot of teaching experience to use for reference
- Government and schools increase capital investment to explore alternative teaching methods

Threats

- The scarcity of outstanding teachers
- The overall standard of teaching lagged behind

From the analysis above, we could conclude that despite most Chinese universities currently are faced with a lower teaching situation, the potential to explore alternative ways to enable a more effective student learning environment is huge under a large number of favorable external conditions. Chinese universities should make full use of favorable external conditions to adjust teaching methods timely.

IV. THE ENLIGHTENMENT OF CHINA-WESTERN EDUCATIONAL CONTRACTION

Based on the above SWOT analysis, several alternative methods are found to explore the potential of effective teaching and learning:

A. To Promote Student-centered Approach

China's education advocates people-oriented management, while the western education advocates people-centered management. China's education system produces people who are basically theoretical talents, while western people are mostly creative talents. Therefore, we should learn the western educational theory on the basis of characteristics of Chinese culture, that is, respect for individuality and uphold freedom under the premise of the basic respect for the traditional Chinese and basic preferences.

When talking about teaching innovation, the traditional views can not be all denied and China's education in this cultural environment should be given enough attention. Therefore, putting the innovation of the educational concept under the thinking mode of traditions is essential. Absorbing the essence of western education is helpful to transform and deepen Chinese educational pattern.

B. Emphasis on the Combination of Theoretical Knowledge and Knowledge Application

China's education focuses on the teaching of systematic and theoretical knowledge emphasizes on student mastery of knowledge, but neglects the students' hands-on and practical ability; and western education attaches importance to the students' hands-on and practical ability, but ignores the theoretical guidance. If the combination of Chinese and western education is realized, it can enable students to both master the theoretical knowledge and to apply their guide practice. To implement the people-centered principles of education and to take into account the actual needs of students, it should begin from the student's own characteristics. The teachers' adult way of thinking can not be transferred to students; student-acceptable forms of education should be used to guide their active learning. Teachers should always pay their attention to students' life experience, interest in learning to promote course content to achieve the modernization, and to promote active involvement of students to explore and to train students to have the information-handling capacity, problem-solving capabilities and the ability to exchange and cooperation.

C. To Promote Individualized Education

Teachers in the teaching process should guide students to raise questions, solve problems, and can target different learning content to help students choose a different approach to learning, such as: acceptance, exploration, imitation, experience, etc.; so that students' learning becomes rich and full of personality, leaving all-round development time and space to facilitate students to develop creativity and autonomy, diversity, individuality and continuous development under the guidance of teachers.

D. To Explore Diverse Teaching and Learning Approaches

Previous teaching methods are few and very rigid. The results of teaching and learning are very limited, so the explosions of the alternative effective teaching and learning methods to improve the current teaching level in China's majority of universities are necessary. Several potential strategies and methods include E-learning, increasing the group discussion etc.

In short, Chinese and western education has a lot to compensate for the individual inadequacies. Recently, one important feature of the education reform is that East-West mutual education and mutual integration come into the eyes of universities' managers.

As the economic and social development levels of some western developed countries are relatively higher, the modernization of education is still leading the world in many ways. They have a number of advanced thinking on

learning and teaching idea that China can learn from. In order to accelerate the modernization of education, we should reflect on the shortcomings of traditional Chinese concepts of education, and take the reform and development in the context of inheriting and developing traditional teaching merits.

REFERENCES

- [1] Hockings, C. (2009). Reaching The Students That Student-Centred Learning Cannot Reach. *British Educational Research Journal*, Vol. 35(1), 83-98.
- [2] Traher, S. (2007). Teaching and Learning: The International Higher Education Landscape. *Higher Education Academy*, British, 16-24.
- [3] Neumark, V. (20/01/09). Choose Your Weapon. *The Guardian*, UK. http://www.guardian.co.uk/universitychallenge/weapon (accessed 1/4/2011).
- [4] Brady, P. (22/01/09). Dragon and Dinosaur Views: The Chinese Enigma That Isn't. *Times Higher Education*, UK http://www.timeshighereducation.co.uk/story.asp?storyCode=405075§ioncode=26 (accessed 1/4/2011).
- [5] Hoare, S. (02/12/08). Academic Tackles The Future. *The Guardian*, UK. http://www.guardian.co.uk/digitalstudent/academia (accessed 1/4/2011).

Zhuo Zhang received her M.S. from Harbin University of Civil Engineering and Architecture, Harbin, P.R.C., in 1997. Currently, she is an associate professor in School of Economic and Management Engineering at Beijing University of Civil Engineering and Architecture, Beijing, P.R.C. Her research interests include management engineering and financial management.

Xiaojing Zhou received her M.S. from Harbin University of Civil Engineering and Architecture, Harbin, P.R.C., in 1997. Currently, she is a professor in School of Economic and Management Engineering at Beijing University of Civil Engineering and Architecture, Beijing, P.R.C. Her research interests include management engineering and accounting.