

Multidimensional Reflections on the Reform of Teaching Methods in Universities

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Abstract—The teaching method is the emphasis point for the teaching reform and the improvement of education quality. This article explores the new type of teaching method from many dimensions, and then explains the teaching method and its significance from the perspective of philosophy. It is held that all the objectives of education despond on the teaching method created by teachers based on their own characteristics as per the education teaching rules and the teaching principles. The deep reform of teaching method takes “learning how to study” among students as the tenet, the students as the basis and the development of students as the center. And a teaching system centered on students is put forward.

Keywords—Teaching methods; Reform; Method of lecture; Student centered

I. INTRODUCTION

The reform of teaching method is the key for the education teaching reform at present, and it will directly influence the education quality, teaching efficiency and talent cultivation, etc.; The breakthrough point of higher education reform is the innovation of teaching method [1]. It has been pointed out in the Several Opinions of the Ministry of Education about Comprehensively Improving the Quality of Higher Education: “Innovating education teaching method, and advocating heuristic, inquiry-based, discussed-type and participated-type teaching [2].” This has reflected the state’s degree of emphasis on the reform of teaching method as well as the important role of new teaching methods in improving the education quality. Professor Zhou Yuanqing, the President of China Association of Higher Education has appealed for the big reform of teaching methods for several times; he believes that “the big reform of teaching methods may be one entry point and breakthrough point for deepening teaching reform, and largely improving the quality in the future [3].”

II. THE PHILOSOPHICAL SIGNIFICANCE AND REFLECTIONS ON TEACHING METHOD

The teaching method belongs to the methodological category, with philosophy attribute. The methodology is the essential method for people to know about the world, and change it, i.e., the world view, and the methodology is a theory applying the world view. The application of certain world view in the cognitive and practice process is presented as method.

The education teaching view and education theory are formed through taking methodology as the guidance to know about the education field, reform the education teaching and teaching methods, and study the common rules, category, principle, theory, means, etc. thereof. Obviously, the types of world view and education view decide the type of teaching method.

From the perspective of teaching, the teaching method also belongs to the category of teaching theory, and it is the organic integration of the method of teachers to teach (teaching method) and the method of students to learn (learning method). The teaching method must adapt to the student learning method, otherwise the expected objective and effect can be hard to be realized due to the lack of pertinence.

The education concept and teaching concept can be reflected in the world view, epistemology, and teaching view in the education field, and they are the key for the reform of teaching method. The advanced education thought, teaching concept, education view, epistemology and world view are formed through the long-term practice—recognition—repractice of the teaching process, rules, characteristics, and system, etc. on the basis of deeply recognizing, understanding, studying and practicing the internal characteristics, conflicts and exiting problems, etc. Without novel education concept and teaching concept, the teaching method can never have essential innovation.

Based on the perspective of methodology and following the principle of being practical and realistic, conduct multidimensional reflections on the teaching methods of universities from the level of philosophy within the framework of objective rules and principle of education teaching, and then strive to conduct all-dimensional exploration to study and explore the teaching method that can be sustainably developed and meet the objective facts considering the existing problems and conflicts.

To realize the essential reform and innovation of teaching method, the universities must change the education concept and teaching idea as well as the world view, and education teaching view. From the height of methodology, analyze the conflicts existing in the teaching process, and put forward practical and actual scientific teaching method as per the actual conditions of teachers and students in the teaching process. For the education teaching in universities, the teachers can be

decisive factors, the lofty teacher's ethics and rich knowledge are essential conditions, and the succession of Chinese traditional national culture can have an important significance in enriching teaching intension and expanding educational function; Innovate education mode and teaching method, realize the overturn of classroom teaching emphasis, i.e., change from the teacher "teaching" centered to the student "learning" centered to take the development of students as the center, and this is a new approach to improve the students' learning and innovation capacity.

The traditional classroom teaching "method of lecture" is organically combined with the heuristic, inquiry-based, discussed-type, participated-type and other new teaching modes, to enhance advantage and avoid disadvantage; Absorb "Mooc", "Micro-course", "Flipped Classroom" and other new teaching modes as well as advanced concepts, and study, adopt network, and multi-media new education technologies, big engineering education concept and engineering education method, which will generate a qualitative leap in the teaching method of universities. The innovation of teaching method is a systematic engineering, rather than accomplishing in an action, and it is requested to macroscopically seize the conflicts of objects and the practice from the systematic perspective.

III. THE KEY FOR THE REFORM OF TEACHING METHOD IS TO CHANGE "TEACHING" CENTERED TO "LEARNING" CENTERED, TAKING THE DEVELOPMENT OF STUDENTS AS THE CENTER

The teaching process includes two aspects, i.e., "teaching" and "learning", which is an organic unity. The traditional teaching takes teachers as the center, and conducts unidirectional knowledge transmission; the teachers have absolute authority, while the "learning" of students is at a passive status. The key for the teaching method to obtain essential reform is to realize the transition or transformation from "teaching" to "learning". The new education concept will cause the essential change of education; the contemporary education theory believes that the true meaning of teaching is to change "learning" into "how to learn", i.e., realize the transmission of "teaching" centered towards "learning" centered. As per the basic rules of students' recognition and knowledge construction, the teaching value is not imparting knowledge, instead, it is cultivating, arousing, and guiding students to independently explore learning capacity and interests, thus, the teaching method should have more educational functions than the teaching contents.

Therefore, the key for the reform of teaching method is how to teach students the methods to study which is the essence of education. However, different people have different opinions on how to teach students "how to learn" and actually, this is still the issue of teaching method. The classroom teaching mode has no big difference compared with other modes before, and the only difference is the essential change in teaching contents. The teachers should firstly change their teaching thought and concept, and know about the important meanings and rules of student-centered. Explore, study, and introduce the teaching method, stimulate students' learning interest and enthusiasm to make students enjoy learning, and actively input time and energy, i.e., change the students' learning concept and habit. Make students change from the

status of exam-oriented education into exploring knowledge, seeking truth, practically engaging in scholarship, paying attention to connotative development, making a clear distinction between right and wrong, thoughtful and cultured, merciful, compassionate, magnanimous, and having open mind as well as rich knowledge, rather than merely staying at the study in pursuit of exam scores. Implement teaching guidance, trigger students' imagination, reflection, and speculation, put forward and discuss problems.

But the knowledge transmitted during classroom teaching is limited. Student-centered does not mean letting them do as they like. The discussed-type and inquiry-based teaching should be organically combined with the traditional teaching method, and then realized under the organization teaching and guidance of teachers. It should be regarded as an entity of the classroom teaching and students' after-class activities for study and planning, and guide them to fully utilize the library, book store and network resources, so as to expand their horizon. Guide them to be skilled at independent reflection on the problems encountered in study, and then to form the good habit of discussing and exploring problems through self-study, network resources or reference book, data.

Taking students as the center can be reflected in the emphasis of teaching work, i.e., serving the study, growth and development of students. It is requested to cultivate the relatively strong self-learning capacity of students, which is the most important fundamental for the students' learning capacity, and also the capacity to conduct lifelong continuous learning. After forming certain knowledge obtaining and learning capacity, the students should conduct self-guidance, and self-plan, and confirm the future objective; the school and the teachers should help students develop and realize their dreams.

IV. THE TRADITIONAL TEACHING METHOD AND THE MODERN TEACHING METHOD ARE COMPATIBLE, MUTUALLY INCLUSIVE, INTERDEPENDENT AND ORGANICALLY COMBINED

At present, among the teaching methods in universities of our country, the traditional "method of lecture" is still the mainstream of teaching methods in universities, and also the most common method applied in universities of our country, i.e., the education in universities is mainly completing the function of "teaching knowledge", i.e., realizing the first function of universities—the function to "cultivate talents". Being different from the teaching in middle schools, the teaching in universities mostly has big course volume, and more information that should be taught, while the "method of lecture" is one kind of method with the highest information transmission efficiency, and its characteristics include low cost, strong universality, and the applicability of educating in teaching, so it has a very strong vitality in the teaching of universities. However, it is simultaneously a kind of teaching method widely questioned, called as "cramming education", "indoctrination method", "spoon-feeding", etc.; In case of using this method for a long time, it will cause the passive thoughts and study of students, and cannot make students directly experience the learned knowledge, with bad influence on memorization. For the teaching of long courses, the disadvantages thereof can be rather obvious [4]. The traditional

teaching has formed three centers of “teachers, classroom, and textbook” in the exiting education.

The multimedia teaching is developed on the basis of the “method of lecture”, and the main mode of teaching at present; Besides, PPT modification and making, teaching plan preparation, etc. are also the main contents and form for preparing classes at present. The advantage of multimedia teaching is reflected in big amount of transmitted information, excellent texts and pictures, vivid image, etc., which can largely improve the teaching efficiency and effect.

From the perspective of innovating the teaching methods in universities, “heuristic, inquiry-based, discussed-type, and participated-type” teaching methods, etc. are the method reflecting brand new teaching concept, and also the innovative teaching method commonly applicable to all kinds of disciplines, which will essentially change the traditional classroom teaching method. But they requests the teacher to input more energies and time, devote themselves in studying, follow the teaching rules, and be diligent in practicing in teaching, to obtain success. Its effectiveness can be mainly decided by the teaching capacity, quality, and academic level of teachers, and the prestige in students and other factors. Teachers with profound knowledge foundation, well versed teaching method, and rich teaching experience can easily obtain breakthrough progress in the reform of teaching method. In universities, under the current status, only a few teachers, old teachers, and senior professors or academic leaders, etc. can obtain certain achievements in this aspect, and also they should be the teachers focusing on teaching research. But currently, the accomplished teachers are more interested in academic research, and busy doing scientific research projects, academic papers, writing books and setting up theories. They are quite enjoying it, and barely have time or the desire to conduct the reform of teaching method. On the other hand, the reform of teaching method is hard to be quantitatively described and evaluated, and the current evaluation standard is also blurry and in lack of operability; Even if in top-quality courses, top-quality video open classes or resource sharing classes and other big projects, the reform of teaching method can still occupy a small proportion, and it is more reflected as a kind of intangible work, and cannot be quantitatively described like the quantity of papers, the scientific research achievements, the index, etc.

For the reform of teaching method, sometimes obvious effect may not be obtained after making lots of endeavors. From the perspective of teaching management, the original teaching order, i.e., the rigid system cannot be arbitrarily altered, making the reform of teaching method under cautious status and in a kind of “conscientiousness” mode, even be neglected virtually. In case of failing to conduct the reform of teaching method, the “method of lecture” can also maintain normal teaching. As long as it can clearly explain the teaching contents, it is considered as a good classroom teaching. Therefore, the innovation of teaching method can be hard to be conducted, without the deep transformation of teaching concept and teaching idea, or the rigid requirements for the reform of teaching method

The author thinks that the teaching method cannot be put forward in a general way. The discussion on teaching method only is pale and weak, so only when the specific teaching practice and the process are closely combined can it obtain vitality. This is to say that, the teaching method should be specific to the detailed teaching contents, and closely related to the teaching contents; Different teaching contents should adopt different teaching methods, and there is no absolutely good method, or unified and all-purpose teaching method.

But no matter which kind of teaching method is adopted, it should be built on the basis of having a thorough grasp of the teaching contents, and reaching to the proficiency. As long as you can possess unique understanding, master the textbook and the classroom, and occupy a commanding position, you can flexibly apply the teaching method. The teaching method is conducted on the basis that the teachers have digested the teaching contents. Think about it, if the teachers themselves are not clear about the teaching contents, and have no in-depth understanding process, they cannot flexibly, freely and thoroughly teach them; under such condition, the discussion on which kind of teaching method should be adopted can be meaningless. The more the teacher teaches one course, the more he can be skilled at the contents, so practice makes perfect, of which “perfect” means methods, and such methods refer to the teaching method condensed by his own characteristics, or are called as teaching experiences.

V. BUILD THE TEACHING SYSTEM CENTERED ON STUDENTS, AND INNOVATE THE TEACHING METHOD

A. *Build the new type of teaching system centered on students*

Cultivate high-quality talents, possessing research, exploration and innovation capacity, but it can be hard to realize it through classroom teaching only. It is requested to combine the classroom teaching and the spare time of students as an organic whole for top-level design. Students are centered, the meaning of “learning and “how to study” is different, and the latter one is initiative. There is no much time for utilization in normal teaching classrooms, so the acquisition of lots of knowledge and the cultivation of capacity should be realized by students through self-study after class. The teachers and the management layer of schools should firstly change the passive learning status of students, motivate the passion of students to study actively, advocate them to study hard and diligently, and meanwhile, form the good habits of being diligent in thinking and finding pleasure in learning.

B. *Universities should change their teaching concept and teaching methods, and actively adapt to the transpositional consideration and practice of teaching and learning*

As teachers, they should conduct top-level design for classroom teaching. Simplify and refine the teaching contents, which should be extremely important under the compression of credit hours, otherwise the teaching efficiency and quality can be hard to be ensured. The teachers should play a role of simplifying difficulties, and explaining the profound theories in simple language; while expressing concisely, a relatively strong capacity of generalization should be simultaneously expressed, with enough attention paid to language art and

humanistic quality. Our country has rich language, and teachers are the master of language, telling the magnificent and academic atmosphere of universities; The University should be a place to spread profound knowledge with the academy as its vitality. The language should be splendid, vivid and endowed with passion and philosophy, making people feel suddenly enlightened and have the artistic enjoyment, cite the classics and teach rigorously.

As students, they should actively study, explore knowledge, think diligently, study hard and carefully, and meanwhile, forge ahead with determination. The teachers should conduct bottom-level design as per the personality of students. Conduct scientific guidance, give forward-looking suggestions, and build the good and harmonious culture and learning environment. As per the actual conditions of students, provide directional guidance to fully utilize the time of students. Under the cramming environment, the self-study capacity of students is generally bad, so in the face of massive amounts of information, they don't know what to do, barely have the distinguishing capacity, and don't know exactly what to learn, or which kind of resources have good quality, etc. The teachers should provide scientific forward-looking suggestions based on systematic concept, and taking the study of students and the improvement of innovation capacity as the core. Improve learning efficiency; the online study can have relatively big space-time autonomy, and has a big difference with the traditional classroom teaching, so it can guide the students to conscientiously and actively learn how to become the master of study. In class, the teachers should often conduct macro-guidance and navigation, cultivate the capacity to obtain knowledge, and make students obtain lots of knowledge and skills in class.

C. Absorb "Mooc", "Micro-class", "Flipped Classroom" teaching modes, and reform the traditional teaching

If the teachers can master the network course making technology, micro-video, webpage, cloud technology, etc., especially the key technologies, functional software, etc. related to the network course teaching platform, they can master the initiative of teaching reform, and improve work efficiency. The new thought and idea of teachers can be reflected into courses without distortion, and avoid the situation that the updating of teaching contents must be conducted by technical R&D personnel.; Meanwhile, network education teaching, network communication, education technology and other new technologies are also the landmark technologies of modern university.

Under the state of all rivers running into sea, share the global qualified education information resources, flexibly apply teaching methods, and explore suitable dynamic teaching methods. Study, explore, and innovate student-centered teaching method, and extensively apply the new technologies of network education to the teaching process. It should be

noted that, the traditional teaching mode should not be abandoned with the development of network education technology, contemporary education technology and information technology, etc. The traditional teaching method is the footstone and foundation for the modernized teaching method. Based on the advanced education concept and teaching idea, organically combine the two above, to sublimate the contemporary education. In the development of higher education, expand horizons, build new orders for education teaching, and realize the harmonious development between human and the society as well as human and the nature.

VI. CONCLUSION

The innovation of teaching method is the key for the success of education reform, of which the advanced education concept and teaching idea can be of great importance. This paper has analyzed and discussed the approaches for effectively improving the teaching methods from different angles, and put forward the new teaching mode centered on students. It is requested to take full advantage of the global qualified education resources, flexibly apply teaching methods, and explore suitable dynamic teaching methods.

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