On "Student-Centered" Teaching

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Abstract—**The rapid development of information network technology poses a challenge to the concept, mechanisms, ways and means of the traditional teaching. "Student-Centered" teaching means under the guidance of teachers, students complete their learning by utilizing a variety of teaching resources through cooperation, discussion and sorts of situations. In the whole process students' learning enthusiasm and initiative are highly mobilized. The fundamental purpose of "Student-Centered" teaching is to enable students to improve comprehensive ability in a limited period of time. As long as the idea of "Student-Centered" teaching is adhered to, we can improve the overall quality of students.**

Keywords-Learning Cycle; student centered;

I. THE HISTORY AND PRESENT SITUATION

With the acceleration of the process of the development of the knowledge society, our understanding of knowledge and yearning for knowledge have changed a lot, which have great influence on our ideal image of the teaching. Thus teachers have to make a new judgment and planning to teachings. American humanistic psychologist Rogers put forward the idea of "Student-Centered" teaching which has become the mainstream of western education and has been widely spread in China rapidly. "Student-Centered" teaching insists that the student is the subject of teaching and the teacher the organizer and mentor. Under the guidance of teachers, students' learning enthusiasm and initiative are fully mobilized. They complete their learning by utilizing a variety of teaching resources through cooperation, discussion and sorts of situations. "Student-Centered" teaching aims at improving students' practical ability and innovation capability. It emphasizes on practice-oriented teaching content and two-way communication teaching method. Its teaching result epitomizes students' innovation capability and ability of linking theory with practice.

It is proposed in National Long-term Education Reform and Development Plan (2010-2020) that in order to promote the scientific development of education, we must be people-oriented. The core of it is to solve the problem of cultivating what kind of people and how to train them. The focus of it is to promote the overall development of all students, focusing on improving students' innovative spirit and problem-solving ability, and their sense of social responsibility to serve the people and the nation.

In recent years, the rapid development of information network technology presents challenges to the traditional concept mechanisms, ways and means of teaching. With the widespread of "student-centered" teaching ideas in China, traditional indoctrination teaching model has been changed. But most teaching is still administrational. And teachers usually treat troublesome students passively by disciplining them rather than with equal communication to improve the overall quality of students. Teachers often ignore students' role in teaching reform which results in students just being learners of teaching plans and tasks instead of real protagonists in learning. However, the effectiveness of teaching eventually relies on student learning. Only with their active cooperation can teaching produce desired objectives. It is the study habits, psychological needs and some other characteristics of the students that determine the validity of "student-centered teaching and learning model. The core of education is teaching and learning. No matter what kind of education reform it is, its ultimate accomplishment can be reached only in teaching and learning. Therefore, our goal is to explore a harmonious mode of teaching and learning.

II. EVOLUTION AND DEVELOPMENT

In the primitive society, teaching and learning were fused in the living labor. People complete understanding, imitating, practicing, and mastering knowledge and skills in the process of laboring. There was no obvious difference between teaching and learning. It was the same to the roles of being dominant or subject in learning. With the division of labor, and the accumulation of knowledge, teaching and learning gradually became independently. Thus the teacher as a new job occupation came into being. In modern times, with the generation and development of industrialization, education became more and more systematical and the form of teaching and learning gradually became ossified. In the 1980s and 1990s, there emerged the concepts of teachers being dominant or students being subjects which brought forth the dominant and subject issues in the teaching and learning of morphological evolution. How to regard the statuses and roles of teachers and students, and whether teachers being dominant or students being subjects in the teaching and learning process become urgent and practical issues in "Student-Centered" teaching.

During the development of the knowledge about education, especially the knowledge about teaching and learning, teaching and learning are often divided into two independent existences because of the needs of analysis. It

seems that teaching and learning are two unrelated categories. However, teaching and learning are presented as a whole in practice, one emphasizing on logic, the other focusing on the interpretation of the process. Teachers and students should respect each other's values and dignity, and share responsibilities together. The assessment of the effectiveness of teaching is a long-term process. The effect of teaching and learning should not be fully quantified, for imparting and acquiring knowledge is only one part of the teaching and learning process. Perfect talented-people training model is a system to combine educators and students, knowledge, skills and moral education, academic force and administrative force. In April 2005, China's Ministry of Education issued a new "Rules of Conduct for College Students". It points out that the overall quality of college students covers such four aspects as ideological, scientific, creative, and physical qualities.

To train talented people, the study at school is indispensable. The school's curriculum system can be divided into dominant and latent courses from the point of view of the courses. Dominant courses are "required courses" which must be achieved together by teachers and students, for example, the English levels and the computer operating levels. Latent courses are known as the "hidden curriculum", referring to the full impact that students get at the school. It includes students' interpersonal skills, teamwork spirits, psychological qualities, moral accomplishment and innovative thinking. The basic function of school curriculum, no matter it is dominant or potential, is to let students acquire knowledge and skills. However, in the process of market economy, the assessment of the acquisition of knowledge is increasingly caught in a narrow pragmatism. Students usually take knowledge as a stepping stone to change their fates, rather than as an opportunity to explore the society or a journey to explore the meaning of life. Einstein mentioned professional knowledge alone is not enough. Only with professional education, students can become useful machines but perfect persons. Teachers, who as the first-line educators must be good at mastering new knowledge to challenge the accustomed teaching mode, get rid of the traditional narrow ideas of teaching. Teachers and students can improve their own knowledge and skills in the dialectical interaction. Both of them can be subjects and objects. In this way, teaching is to treat different students with different teaching methods and learning is to have autonomous learning and obtain development opportunities when needed.

III. IMPLEMENTATION AND APPLICATION

Most Chinese students born in the 1980s and 1990s are relatively independent. They like to make their voices heard and have the sense and habits of democratic participation. Therefore they have instinctive revolt against teachers "mouthpiece" as well as teachers controlling the classroom. How to fully respect students experiences and fuse them with classroom teaching need teachers rational design. Student-Centered teaching requires the content and form of teaching should be organized around the development of students. It emphasizes the humanization and flexibilization of

classroom teaching. Its goal of students' development is achieved by students' independent involvement. During the whole teaching process teachers must analyze the situation of students, prepare teaching contents and design teaching programs to allow students to be masters of the classroom, carrying on independent study and cooperative discussion. Teachers are helpers, facilitators and participants of students' study and discussion by organizing, managing and evaluating the entire classroom.

The principles of a student-centered learning approach take students' prior knowledge and experience, their needs and learning preferences into account. Formative assessment, peer assessment and self assessment help students develop key employability skills. During Student-Centered teaching students actively participate in the learning process, and the teacher acts as the facilitator of learning rather than as the presenter of knowledge. Activities and resources are used to motivate, support, challenge students. Students are encouraged to develop their own ideas and train problem solving skills to become independent learners.
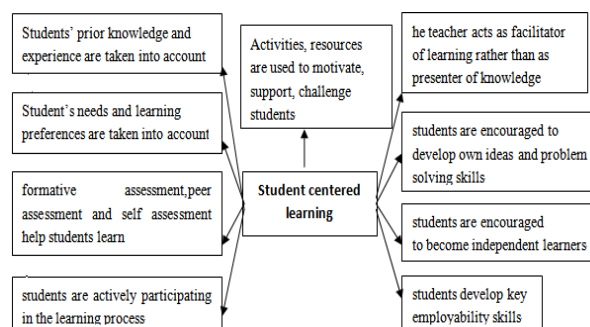

Figure 1. Student-centered learning approach

During the process of implementing the student-centered teaching, teachers must first think over three questions. They are teaching goals, teaching objectives, as well as evaluation. These three questions cover the whole process of teaching, and have direct impact on the effect of teaching.
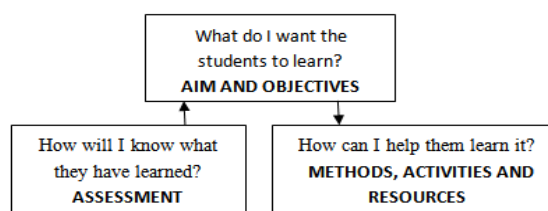

Figure 2. Three questions

Student-centered learning is cyclic. The cycle of students obtaining knowledge and skills is shown as below:
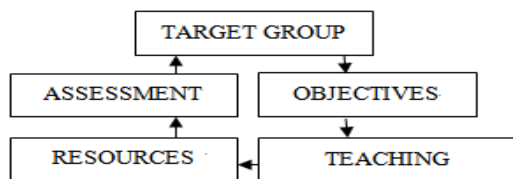
Figure 3. Learning Cycle

In the diagram of learning cycle each period of teaching is divided into five stages. They are determining and completing learning task, finding answers, practical drills and assessment. The corresponding student behaviors of each stage are acquisition information, plans, collecting information, verification and assessment. Each stage adopts the student-centered teaching methods, including the inspection of homework, mutual aid Q & A, case studies, experiments, class discussions, reviews, etc. During the stage of determining a mission, the teacher should make students understand "what to do", so that students can understand the task. In the stage of students' completing the task, students consult books and internet to understand and analyze teacher's assignment, forming their own plans in mind, and teachers help students to complete the task with extracurricular Q & A. After self-study, students inevitably have many problems which are hard to answer. In the stage of finding answers, students should be clear about "Why should we do?"

Teachers may take question and answer method and class discussions. In the stage of testing achievements, students need to know how to apply the mastered knowledge and skills, that is, to know "how to do". The method employed in classroom is "demonstration, observation, imitation and then act". Teachers show students how to complete or resolve the tasks set, so that students understand what to do. During the stage of assessment, students have self-assessment on the quality of their performance, and then peer-assessment and teacher assessment to have a further understanding of their achievement. All these form the formative assessment. During the entire learning, teaching methods and learning phases are recyclable and reusable. Their fundamental purpose is to enable students to improve comprehensive ability in a limited period of time.

IV. TEACHING PRACTICE

A. Contents and Teaching Points

Contents: Website evaluation in website operation and management (90 minutes);

The key points in Teaching：Obstacles and props to arouse students' interest in learning activities; Time and space constraints and strengthen students' sense of time; Group activities raise the members' cooperated consciousness; The introduction of the concept guide the students' autonomous learning; The rules and evaluation establish behavior restriction of students;

Teaching Points: The necessity of the website evaluation; Master the methods and principles of the website evaluation; Familiar with the site evaluation process;

Ability training: self-knowledge; knowledge-pattern; Good with group cooperation spirit and with determinate leadership; Obedience to superior orders, and good time management skills.

B. Design of classroom and question situation

TABLE I. DESIGN OF CLASSROOM AND QUESTION SITUATION

Points 1：The necessity of the website evaluation; Time: 25 minutes	
Main Points: Group with "Poker", Hearts(A), Spades(B), clubs（C），diamonds（D）； Group activities, draw with cards and students show in the stage, describe a song with the body movement. Student assessment ，The teacher introduced the knowledge point, the necessity of the website evaluation Teachers take part in the teaching activities	*Teaching Points:* equal opportunity, Interesting props enrich students' experience and wisdom improve students' self-awareness The interaction between teachers and students, strengthen the communication

TABLE II. DESIGN OF CLASSROOM AND QUESTION SITUATION

Points 2：Methods and principles of the website evaluation Time：15 minutes
Theory primarily, supplemented by case Web traffic indicator, expertise, questionnaire, comprehensive estimation. The content of quality first, reasonable comprehensive index Remark：The teacher tells the theory，Use case to strengthen the students' understanding of theoretical knowledge，but not too long

TABLE III. DESIGN OF CLASSROOM AND QUESTION SITUATION

Points 3：Web site evaluation process Time：35 minutes
The teacher as the guide, the students as the main body Import：Website status, advantages and disadvantages Knowledge ：Web site evaluation process, global assessment，Website evaluation，Content evaluation， Website promotion and other Practice: Grouping rules, Time limit; Specific tasks; Examination and evaluation

Practice points:	Teaching Points:
Rules: Group A and B are commercial websites, Group C and D are non-commercial website; Time: 25 minutes. Task: According to the evaluation process of website complete the site evaluation process; Groups decide the group name and the theme of the website All the leaders and the members to complete the study document. Study document: Group name :*** Leader name:*** Member name:** ** Title:*** URL:*** Evaluation results:*** Suggestion :	the teaching way take teaches alone primarily, centralism teaching as auxiliary. Set the rules and time Teacher-student interaction and communication Individual participation and teamwork Document the questions and review unresolved questions in the learning process.

TABLE IV.　　DESIGN OF CLASSROOM AND QUESTION SITUATION

Points 4: Teaching evaluation Time:10 minutes
Evaluation: (1) student assessment 5 minutes   (2) Teacher's comment 5 minutes Feedback： Time limits; The quality of job; Knowledge application; The sense of teamwork; Shortcomings; Need to improve; Student performance;

TABLE V.　　DESIGN OF CLASSROOM AND QUESTION SITUATION

Points 5:Practice Time:5 minutes
Practice Points： The main task is Consolidate the content of students ;Based on the next course content as supplement;Not limited to the teaching materials;

C. better results in teaching

Students can actively participate in the group work，90% of the students are pursuit of teachers, show great enthusiasm to the task, the phenomenon of play mobile phone, nodding and eating gradually reduced, Students reflect very like this kind of teaching method.

Only when we adhere to "student-centered" teaching, can we improve the quality of teaching and learning, and make due contributions to the needs of promoting students' overall quality.

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