The Research on Educational Models with the Development of Internet

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Abstract: Throughout the history of the evolution of education, we know that the essence of education is to train people to be well-rounded whole-person which masters four key factors: knowledge bases, learning and development, interaction with people and civic awareness. Knowledge bases include language literacy, mathematics literacy, scientific literacy, information technology literacy, artistic literacy and humanistic literacy. Learning and development includes learning, problem solving and practice, criticism and creativity, and self-management. Interaction with people includes communication, cooperation, leadership and responsibility, and moral character. Civic awareness includes the consciousness of law and rule, national identity, society and civic obligation, international consciousness and multi-culture, consciousness of sustainable development. There are three new methods of education: MOOC, knowledge column - based learning methods and "mentoring" learning style. As a knowledge-imparting platform, MOOC concentrates the world's high-quality teaching resources and breaks the inequality in education, but its main function is knowledge imparting. The knowledge column - based learning methods enable students to make full use of the fragmentation of time learning content involves various abilities, but is limited to academic status and understanding level which are lack of activities or any practice project to improve all kinds of abilities. The "mentoring" learning style, which meets the needs of personalized teaching, is a short, flat and fast learning style. However, there is much knowledge which is miscellaneous and lack of systematic processing and arrangement. This paper also discussed what the education might be changed into in the future from the perspective of teaching methods, the learning content, teacher training, teaching design and the role of the school.

1. Introduction

It takes a long process for human to learn about the universe and nature, from the simulated flight to the artificial intelligence. During this process, humans need to acquire what ancestors using thousands of years to research and understand by education means in a very short period of time, which includes philosophy, history, literature, science and other fields and aspects. The history of

education is also the history that man understand the universe as a whole. The most primitive education is Darwin's theory of evolution, the survival of the fittest. It's the beginning of learning when an individual organism begins to change. Then, like animals, we learn by observation. In the age of agricultural society, moral education is the main training goal. There are a series of philosophers and thinkers such as Confucius and Laozi in China, and philosophers such as Plato Socrates in the west. In the era of industrial society, the talents needed by the whole society are technical talents who understand advanced technology and promote the development of social productivity. Now we are faced with the dilemma posed by the information technology revolution. The way of learning is changing. We have convenient learning methods such as MOOC and Edx to make learning no longer limited by time and space. In the future, we will face bigger educational problems. We will fight against death. We will learn how to prolong our lives. We will learn how to let our children acquire knowledge more efficiently. As time is changing, the requirement of talents from the world is changing. However, the essence of education is always about what kind of person we want to train. The European Union, UNESCO and the OECD have come up with the core literacy for the 21st century, the idea that what we want to cultivate is the whole person. The national education reform commission has also put forward China's model for cultivating talents.

2. The Essence of Education

2.1. Knowledge Bases

Knowledge bases include language literacy, mathematics literacy, scientific literacy, information technology literacy, artistic literacy and humanistic literacy. language literacy includes native language ability and foreign language ability. Native language ability is the ability to communicate, read and write effectively using spoken and written languages. Foreign language ability is the oral and written expression and understanding of foreign language. Mathematical literacy is to use numbers, master the basic knowledge of mathematics, express and understand the knowledge information and the concept and application of numbers through numbers, apply mathematical thinking, popularize and apply the concept conclusion and processing method in mathematics to understand all objective things. Scientific literacy is to understand and master scientific knowledge, be able to use scientific knowledge to explain the phenomenon of daily life, understand the common sense of life and explain the events inside and outside of life with a scientific attitude; Information technology literacy is the basic knowledge of information technology, information collection, information selection, information management ability, etc. Artistic accomplishment usually refers to aesthetic ability, the ability to feel, appreciate, evaluate and create beauty; Humanistic quality includes knowledge and methods of humanities, concern for and respect for people, and humanistic spirit. Knowledge is the most basic element in our understanding of the whole world, and the first thing education should deliver.

2.2. Learning and Development

This includes learning, problem solving and practice, criticism and creativity, and self-management. Sukhomlinski pointed out: "If we don't figure out a way to make students in a state of high emotion and excited intelligence instead of rushing to impart knowledge and to do mental work without emotion, it will bring fatigue to students and there will be no joy in their mood and no interest in their learning process. As a result, learning will become a heavy burden on students." The challenges facing the current society have made higher demands on the new generation. School education is only one stage of our education that we need to learn and grow throughout our lives. Learning which is no longer limited by time and space has become anytime, anywhere and in

various forms. It is important for anyone to learn how to learn. They need to have the correct study method, the correct study habit, the correct study ability and the correct study motive. In the learning and development section, we need to cultivate students' abilities as follows: They can think accurately and deeply in problem solving and solve complex problems by thinking, trying, experimenting and repeatedly exploring. They can solve practical problems by combining existing knowledge and skills and utilizing existing resources and combine theory with practice; They can not only explore and solve unknown problems but also discover, analyse and solve common problems; They can not only solve problems in creative ways, but also have the courage to innovate and take risks and generate new ideas, new problems and new products; They are able to summarize and reflect; They have the ability to question and raise different points and opinions; They are able to establish their own career goals for which they arranged systematic activities or processes; They have vocational skills; They have independent personality, independent thinking, independent action and self-reliance; They have metacognitive evaluation of their ability to understand themselves, manage themselves and speak for themselves; They have awareness of their own emotions and develop the ability to control them; They are sensitive to other people's emotions and empathic; They are adaptable and flexible; They have the character of perseverance; They have confident and optimistic learning quality and attitude; They have the basic ability to survive independently, live independently, manage money and daily affairs properly and develop good living habits; They are able to make, organize and implement plans based on their goals; They are capable of execution; This section must be in one column.

2.3. Interaction with People

Interaction with people includes communication, cooperation, leadership and responsibility, and moral character. One of the attributes of human beings is sociality. Everyone does not exist independently and needs to live in harmony with the surrounding environment. The skills we need to develop in this area are: They are able to develop good relationships with others; They can communicate, express and listen effectively; They can manage and resolve conflicts effectively; Throughout the team, they take responsibility and collaborate with other people. They lead others to work towards goals and achieve common goals. They have respect for themselves and others and respect for diversity; They have compassion and tolerance, and the right values and morals.

2.4. Civic Awareness

Civic awareness includes the consciousness of law and rule, national identity, society and civic obligation, international consciousness and multi-culture, consciousness of sustainable development. In this respect, we should cultivate the students' abilities: everyone should have the sense of global citizenship, abide by the law and the rules, and have the spirit of contract. They uphold their citizens' basic rights, perform their basic duties, and have a strong sense of identity and belonging to their country. They are responsible, actively involved in social activities, thinking about public affairs, bearing in mind the general interests of society, and making personal contributions. They have an in-depth understanding of the international community, global thinking and international vision, and abide by world rules. They identify with and understand multiculturalism, are pluralistic and tolerant, and learn, understand and respect other cultures. They have awareness of environmental protection, understand and care about the management of natural environment, ecological maintenance and development. They have the concept of sustainable development.

3. The New Methods of Education

3.1. Massive Open Online Courses

MOOC which is short for Massive Open Online Courses is an online education model that anyone can sign up for free. MOOC has a set of assessment system and assessment methods similar to offline courses. Each course is held on a regular basis. The learning process consists of watching videos, participating in discussions, submitting assignments, answering questions and taking final exams. The term MOOC was coined in 2008 by the director of network communication and innovation at the University of Prince Edward Island in Canada and a senior fellow at the national institute of applied humanities education technology. Then a host of educators, including professor Jim Groom of the university of Mary Washington and Michael Branson Smith of York college, city university of New York, adopted the course structure and successfully hosted their own MOOC at universities around the world. In the fall of 2011, 160,000 people from around the world signed up for a free course called introduction to artificial intelligence by Sebastian Thrun and Peter Norvig at Stanford university. A number of major innovative projects have been launched, including Udacity, Coursera, and edX, involving more than a dozen world-renowned universities.

In 2014, MOOC was officially launched in China, and the courses were uniformly managed and operated by the academic affairs offices of each school. Universities design course and assign teachers in charge. The teachers make and release courses. A new MOOC course produced by the teacher needs to involve 9 links, such as course topic selection, knowledge point design, course shooting, recording and editing, etc. After the course is released, the teacher will participate in online tutoring such as answering questions in the forum, correcting homework, etc., and issue certificates at the end of the course. So far, there are 577 Chinese universities cooperating with MOOC, with 6.2855 million teachers and students participating in discussions. The content of the course covers 15 categories, such as national boutique, foreign language, computer, postgraduate examination, science and technology tutorial, practical English, etc. Take the course of Python programming as an example, the three teachers of this course are all associate professors in the school of computer science, Beijing institute of technology. The course has had 366,369 students and 16,556 online comments by January 8, 2020.Course overview, teaching objectives, course outline, preparatory knowledge, certificate requirements, reference materials, reference courses are all clearly presented. Learners have a clear understanding of both the macro framework and detailed knowledge points of this course.

The main advantages of MOOC are:

(1) Massive. MOOC has a wide range of audiences and students all over the world. The larger the number, the better the effect;

(2) Open. There is no restriction to non-school students;

(3) Online. It makes full use of the advantages of the Internet and combines with new technologies to build Online learning communities;

(4) Course. The course which includes the arrangement of educational activities, is the completed teaching process and teaching mode.

Of course, MOOC also needs to be improved:

(1) MOOC focuses on the transmission of knowledge while the interaction is not so strong;

(2) MOOC is lack of emotional education;

(3) MOOC is lack of personalized training;

(4) MOOC ignores the limitations of students' independent learning ability.

Khan academy launched the world's first online education institute in 2004, four years before MOOC. It started as a way for Khan to teach math to his cousin in Bangladesh. In 2014, khan

experimental school which is an offline school was built. As of today, the school has more than 800 students between the ages of 5 and 15. Khan says, to do more than a decade of online teaching, I feel more and more strongly that no education mode can replace teachers' influence on children by face to face. A concerned look in the eyes, an encouraging gesture, one-on-one communication every day, only in this kind of high-density interaction and feedback between teachers and students, will children be incentives. This is what the online teaching is unable to substitute. The combination of online and offline teaching is a good solution to a series of problems caused by only online learning. Students can learn knowledge points online and discuss in the form of miniature classroom offline so that they can better grasp knowledge. Teachers pay more attention to the emotional changes of each student and give more timely guidance to meet personalized learning needs. When students are not motivated or active in learning, the teacher will intervene in time to achieve better teaching results.

In addition to MOOC and khan academy, similar learning sites include NetEase open classes and Tencent classes.

3.2. Knowledge Column - Based Learning Methods

Since 2016, with various knowledge platforms have emerged a new learning method based on knowledge columns became more and more popular. All you need to do is download a learning APP on your mobile phone, and there will be different types of learning content in the APP, including book interpretation, knowledge point explanation, in the form of video or audio presentation. Most learners mainly learn by audio because their learning time is relatively flexible. They can listen to the learning content while driving on the way to work, or they can be immersed in the learning atmosphere by avoiding the noisy and mixed sounds on the subway, or they can listen to the learning content while cooking. Of course, if you have enough time and a suitable place to study, you can also watch the video for learning. The learning content is exactly the same as the audio, but with more visual content to help you understand the learning content. Learning content can be the interpretation of a book, such as "trees and houses", which is an architectural book explained in plain language, let the reader understand the main content of the book, and generate interest in reading. Content can also be a learning module which is divided into several sections. Take the course called modern western thoughts about 40 minutes for example, it is not already recorded knowledge, but live courses which update and present three times a week. If students missed the live broadcast, they can watch the recorded courses. The difference is that there are plenty of interactions between the teacher and students during the broadcast. The learning content can also be a lecture, such as "interpretation of the annual report of global technology companies", delivered by the experts of the global technology innovation industry. The lecture lasts 52 minutes and explains the annual reports of apple, Microsoft, amazon, Google, tesla and other major global top technology companies.

This new learning method mainly takes advantage of the advantages of the mobile Internet. In the era of information explosion, people have several new demands on learning: Firstly, there is a lot of information, but not all of it is effective. Secondly there is a lot to learn, but the time is very limited, so people need to make good use of the fragmented time to learn; Thirdly People use mobile phones very frequently, so they need to make full use of them as one of the learning tools. In this context, the new learning method based on knowledge column of mobile Internet emerges at the right moment. In 2016, "get", audio "Himalayan FM", Fan Deng reading APP and other knowledge payment products began to appear.

The features of the learning style dominated by knowledge columns are:

(1) It can select the essence of knowledge. In the age of information explosion, there is a high time cost to screen useful information. On this kind of knowledge platform, a book of hundreds of thousands of words can be condensed into 45 minutes of explanation with vivid examples and the combination of the daily life, so that learners are impressed and understand thoroughly;

(2) Audio learning allows learners to make full use of fragmented time for learning. It takes only 45 minutes to drive to work to learn a book;

(3) Learning convenience makes the range of learners wider. Learners can be school students, white-collar workers, housewives, retired old people and so on;

(4) Gamification makes the learning process more interesting. Students can accumulate a certain amount of learning to obtain the corresponding point which is positive feedback in the learning process.

Of course, there are some problems with this way of learning:

(1) The type of knowledge imparted is limited because most students learn mainly by listening to audio which cannot present what the teacher is describing totally. Even by the video students can only see the speaker's expression without other presentation content. For example, math classes require calculus, chemistry classes require experiments, physical education classes require instructor demonstrations, and there are a number of other methods that require live demonstrations. There is no way to do this with audio or in fragmented time;

(2) limited learning content. For example, the recommended reading section is just a bare-bones read which is not enough for multiple scenarios. For example, tool books should be followed step by step without a word less.

3.3. "Mentoring" Learning Style

Mentoring is a kind of one-to-one instruction for complex and personalized problems. Students can register on the website or APP. After registering, students can search for tutors with relevant background according to the direction they want to learn, and then take classes through various communication methods, such as telephone, meeting, or online teaching. MOOC and column by the knowledge of learning style are suitable for the content given priority to knowledge learning, but in actual work and life, the real problem we face is complicated so that we could not all copy textbook knowledge. We need a person with the relevant experience at this time to gives us some guidance and advice which is the tutorial system background of mentoring learning styles.

Mentoring system is mainly a personalized way for successful people from all walks of life to share their successful experience, offer some valuable advice to the later ones, and make them less detours. This approach is influenced by individual characteristics and is not suitable for group teaching. It needs to be tailored to each individual's situation. For example, two students have the same goal to apply for American university graduate degrees, but their consulting contents are totally different because they have different GPA, extracurricular activities, internship experiences, volunteer projects, academic thesis and study purposes. Or, a student who is working in the field of e-commerce wants to turn to investment Banks. He has to know about the knowledge and ability that Banks need, so he needs to find person who is working or used to work in investment banking. So that the student can learn the details of this work in order to be well prepared. This kind of one-to-one tutoring is very interactive in the process of explanation. Even a sentence from the tutor may inspire the learners with new ideas and questions and lead the topic to a deeper content or other directions.

Taking the ZAIHANG APP as an example, Beijing Nutshell interactive technology media co. LTD launched its product on March 13, 2015.Through this APP, you can meet teachers in different fields, have one-on-one meetings with them, or answer questions over the phone, including

psychology, career development, industry experience, Internet, life service, education and learning, investment and financial management. Ji Shisan, the founder of Beijing Nutshell interactive technology media co. LTD, said on her microblog account that her idea for the course came from the feedback they got when they were doing MOOC courses. Besides learning, there are still many questions for the learners to answer. Everyone has different needs for academic planning, college planning and career planning. Such needs are personalized and cannot be solved by a unified curriculum. The teacher lists some commonly selected topics according to his field of expertise without unified teaching material and teaching form, while the students select the appropriate expert according to his background and field of expertise. The teacher can also timely adjust the communication content according to the student's actual situation and the content he or she wants to learn.

The advantages of this form are:

(1) It imparts more practical experience in a certain industry and field than traditional knowledge;

(2) The whole process of communication which is not just imparting instead of adding analysis of students' situation and giving solutions is very interactive;

(3) It is obviously personalized. Teachers make growth plans and solutions according to the situation of students;

(4) The period is short. It is not a series of courses and the contents can be understood after several hours of communication.

The disadvantages of this form are:

(1) Communication time is limited. Teaches are all part-time workers. Sometimes, students miss teachers with right background because time is not proper;

(2) Communication tools are limited. online communication is through the phone or WeChat voice software which is not convenient to display data;

(3) The number of teachers and students must match, which requires a high number of teachers;

(4) The number of registered experts is limited, and some personalized counselling cannot be satisfied.

4. Conclusions

As a knowledge-imparting platform, MOOC concentrates the world's high-quality teaching resources and breaks the inequality in education, but its main function is knowledge imparting. Corresponding to the essence of education, it does a good job in imparting knowledge foundation to students, but lacks the part of emotional education which affect a person's ability to be plastic. School education plays an important role in this process. While the teacher is the most direct educators to improve students' learning ability, problem-solving ability and practice ability, critical thinking and creative ability, self-management ability, communication skills, leadership, moral quality and the cultivation of citizen consciousness and so on. These all need the teacher's intervention in time. When students do a good job, the teacher's encouraging words is better than they are watching video again and again. When they don't do well, the teacher's personalized guidance is particularly important. With large online classes, there is no way to solve these personalized problems.

The knowledge column - based learning methods enable students to make full use of the fragmentation of time learning and learning content involves various ability, but is limited to academic status and understanding level which are lack of activities or any practice project to improve all kinds of abilities. If students want to further explore some knowledge points, they are

lack the of corresponding curriculum support. And the content lacks originality. Homogeneity is serious. The quality of the content is uneven and the cost is huge. Copyright is confusion.

The "mentoring" learning style, which meets the needs of personalized teaching, is a short, flat and fast learning style. However, there is much knowledge which is miscellaneous and lack of systematic processing and arrangement. The quality of teaching varies from teacher to teacher at different stages. The aspects including the knowledge bases, learning and development, interaction with people, civic awareness are not completely covered. In 2018, the product positioning of "ZAIHANG" has been adjusted from life strategy to career promotion, and the teaching content is more focused. In order to ensure the quality of the content, they spend a lot of energy to train instructor by hand in hand. In the course research and development, the team will firstly determine the course theme according to the expert's specialty, cut small particles, and precisely correspond to the user's needs. Moreover, quality control is throughout the course development.

Comprehensively analysing of the three teaching methods, each method in the field of a certain knowledge does play a big role, and even to some extent changed the students' learning style before and make learning more efficient and convenient. However, in terms of the essence of education, there is no one way is can completely meet the requirements of cultivating a "whole-person". Most of the time, students learn by using the combination of the three methods each of which as a learning tool, at different stages, in different situations. For students with strong learning ability and self-management ability, the three methods can be freely switched and flexibly used, but for students without learning ability and self-management ability, it will be very chaotic, and even may not be able to learn. Therefore, I believe that education in the future can make some changes:

(1) From the perspective of teaching methods, the future teaching methods can be combined online learning and offline learning. Based on the concept of flipped classroom, the O2O teaching model also carries out a series of offline teaching activities. Top teachers in a certain field explain the essence of knowledge online, while offline teachers who answer questions related to online course are responsible for the emotional education of students. They can organize activities, guide students to think and explore actively, exercise students' various abilities. The teacher's role can change from a single imparting of knowledge to multiple roles, such as the project manager of a project, the technical advisor to a student on a project, and the member of a group discussion. The combination of teaching content and practice content is very important.

(2) In terms of the learning content, the learning content can be explained by the essence of the knowledge points, but this kind of explanation is more limited to bringing students into the door of knowledge. If students are interested in a certain knowledge, they will have all the knowledge available for careful study. On a dream of red mansions which is one of the four most famous Chinese classical novels, for example, there is a lite version of the essence of the 40 minutes. After listening, the students' interest in learning is triggered, it is better to have a vivid interpretation of the original full version is available for students to learn. However, some APP, such as WeChat reading, had this attempt to read but reading is given mainly by robot which gave students less literary aesthetic feeling. Maybe it is better to let broadcasting professional and experts to read and then students will understand the classical deduce, feel the beauty of classical literature, learn about poems and grammar knowledge and edify sentiment.

(3) From the perspective of teacher training, the future training of teachers should focus on the ability training of academic planner, promotion planner and career planner. The role of the academic planner helps students to analyse clearly what the purpose and significance of each subject is, so that students are interested in the study of the course. The role of the promotion planner is to help the child to analyse clearly what the next stage of learning is, so that the child is full of expectations and expectations for the future of learning. The career coach tells the child how to apply what he has learned and how to apply it in real situations. Contemporary role of teacher

will be changed: from passed porters to mentor in the process of education, from knowledge copier to creative inspirer, from professional shallow teacher to encyclopedic educators, from the leaders and managers to students' collaborators. (the changing role of contemporary teachers)

(4) From the point of teaching design, we can enhance the interaction with students, even if it is the interaction between computers and people, we can add game factors, so as to enhance the students' interest of learning. Students' learning process is just like to upgrade the game in which each breakthrough level will have a sense of achievement.

(5) The role of the school in the future is more of a resource purchaser and knowledge supermarket. The school selects the best resources for the students and designs the curriculum system for the whole resources. Students choose what they want to learn from the knowledge supermarket.

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