

# Vocational Education Teaching Mode Reform under the Background of "Internet +"

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**Keywords:** Occupation Education; Internet +; Teaching Model.

**Abstract.** Based on the electronic commerce professional "network marketing" course as an example, we explored Vocational education teaching new mode under the background of "Internet +". Through the analysis of problems existing in "teaching and learning" of the teaching, we put forward the teaching plan of "Internet + teaching", "Internet + entrepreneurship" and Internet + evaluation", and formed new teaching mode of "Online + offline", which provided reference for the implementation of new teaching models in other professional courses.

## 1. Introduction

In November 2014, in the World Conference on the Internet, Li Keqiang pointed out: The Internet is a new tool for mass entrepreneurship and mass innovation. As long as "a machine in hand" and "people online", achieve the fusion of "computer + human brain", it is possible to get a lot of knowledge and information through the "maker", "crowd-funding" and "crowd-sourcing" and other ways, dock many venture capitals, and detonate unlimited creativity and creation. In March 2015, Premier Li Keqiang proposed the "Internet +" action plan in the government work report for the first time. He put forward to formulate the "Internet +" action plan, promote the mobile Internet, cloud computing, big data, Internet of things and so on combined with modern manufacturing industry, facilitate the healthy development of e-commerce, the industry Internet and Internet finance, and guide the Internet enterprises to expand the international market. For a time, "Internet +" has become the most popular network hot words. With the advent of the Internet era, the world has become an era of Internet of things. The new era calls for a new industrial revolution, and "Internet +" era calls for education concept, personnel training mode, teaching methods and evaluation methods transformation. Vocational education, as one of the most sensitive educations to economic and social development, is placed at the first. The adjustment and upgrading of society will inevitably bring about the transformation of development mode. Vocational education is supposed to take the initiative to deal with, and its development should be based on the "Internet +" perspective to find a more optimal resource allocation scheme, to meet the requirements of the economic and social development upgrade for the constant improvement of vocational education itself, so as to meet the demand of the educated for personalized knowledge.

## 2. Current situation of "network marketing" course in Higher Vocational Colleges

With the development of the Internet age, "Internet +", as a new form of economy, is accelerating changing the traditional industry state, but also brings new challenges to the traditional vocational education. In consequence, it is particularly urgent to change the traditional occupation education educational ideas and teaching mode. It is the issue needed to be urgently solved for how to improve the students' creativity and practical application ability, and how to cultivate the innovative talents needed by the new economic development. With the development of national economy transformation and innovation economy, traditional industries will be gradually eliminated, and the emerging industry makes the social division of labor further refined. The social demand for talent also has the new change and puts forward higher requirements to vocational literacy, vocational skill, and vocational structure of people. Therefore, the current vocational education should conform to the era requirements of information and network social development, enhance their educational level

under the background of "Internet +", and form new school-running model of "Internet +" vocational education.

"Network marketing" in e-commerce major in Higher Vocational Colleges is the professional basic courses integrates a set of comprehensive, theoretical, applying, and practical features, which is an introductory course for e-commerce major [1,2]. The characteristics of the course are based on the theoretical knowledge of e-commerce, and it applies it to the practice of enterprise economic business. As a result, "The Foundation and Practice of E-commerce" is a discipline which combines theory and practice closely. Under the traditional teaching mode, we paid more attention to the teaching of theoretical knowledge, but ignored the importance of practice teaching to some extent. In the teaching process, it continues the single teaching model of "teacher show lectures and students listen to", thus students' participation is reduced, leading to a decline in learning initiative. At the same time, subject to the constraints of teaching hours, teachers have no time to take into account the feedback of the students' learning effect, but focus more on how to teach knowledge rather than how to solve the problems. In the meanwhile, the development and update of the electricity industry are fast, with great changes in learning methods. The traditional teaching methods have seriously affected the quality of teaching, and even affected the recognition of enterprises to students. It has become the essential issue in the teaching reform for how to change the traditional teaching mode, make full use of Internet + era resources allocation, strengthen the two-way communication between teaching and learning in the teaching process, and stimulate students' interest.

### **3. Thoughts on the teaching design of "network marketing" course in e-commerce major in Higher Vocational Colleges**

According to the goal of cultivating talents in vocational education, and focusing on the characteristics of technical skills training, the teaching mode should be more suitable for the characteristics of vocational education and more targeted on talents cultivation. Through the daily teaching practice and preliminary investigation research, Internet teaching resources are rich and the available resources are more. But for the vocational education, it is necessary to take its essence from the rich network resource and serve the teaching [3, 4]. Vocational education is different from basic education, for the post segmentation, it is clearer, and the duty positions requirements are more professional. The cultivation process is relatively more targeted, and too broad curriculum cannot meet the requirements of vocational education for talents cultivation. As a result, it is expected to, through researches, make use of the era characteristics of "Internet +" to integrate the advantageous resources, and seek for effective ways to get more suitable teaching mode for the vocational education. In view of personalized education for specific groups, mixed teaching methods with online and offline alternation can be chosen in the teaching mode, thus forming a new mode of "online teaching / learning + online self-study / thinking + offline analysis / assessment + online diagnosis / feedback".

#### **3.1 Internet + teaching**

Make use of the flipped classroom teaching mode based on Pan-Asian platform, to promote the teaching effect, improve the teaching quality, and implement the new teaching idea, thus promoting teaching with technology and improving the effect of the implementation of the flipped classroom teaching.

##### **1. Development of teaching resources by using micro course as the basic teaching design unit**

Taking the teaching content organization with the micro course as the core, design the length of the teaching video for 3-15 minutes, and design 2 to 3 exercises to consolidate the knowledge. Design supporting PPT, animation and other multimedia resources as the supplementary resources for teaching video. The micro course resources are released to the micro class space of network teaching platform, which is designed based on the course content knowledge and the skill point for the unit, in line with the cognitive characteristics and learning of students, and able to meet teachers' flexible and various teaching design requirements.

## 2. Extracurricular video teaching process.

The teacher guides the students to watch the video and finish the task to accept the knowledge teaching by the task driven teaching. Teachers release the teaching content of the course through the network platform, and students complete the corresponding tasks in accordance with the requirements of teachers. Although the stage is implemented in the extracurricular practice, teachers and students interact with each other through the network teaching space. Students can issue the problems encountered in learning in the forum discussion group to the network teaching platform, and teachers and students, as participants, solve the problems issued by students together [5]. Through the network teaching platform, the forum discussion teaching enriches the teaching resources and teaching contents, makes up for the defects of one-sided and mechanical teaching resources, and in the meanwhile, stimulates students' learning enthusiasm. In the stage, teacher monitor students' learning through the network teaching platform, such as: the time for students watching video online, homework completion, problems encountered in learning and so on. In addition, teachers find out the common problems of students in the process of learning through the analysis of these data and students' learning situation, and put forward the corresponding solutions.

## 3. Classroom "knowledge internalization" process

In the classroom, teachers should first of all spend 10 minutes or so on the unified teaching on the basis of the common problems faced by students in the course of extra-curricular learning, so as to solve the problems in the process of extra-curricular video learning. The second is collaborative inquiry learning activities. Teachers can make face-to-face communication with students in accordance with the doubts of students in the learning process, inspire the students and conduct personalized guidance. Make the application and analysis of the knowledge learned in the previous stage through the classroom learning activities, such as homework exercises, group projects, reflection and summary and so on. Different from the traditional classroom learning, teachers and students, through logging in the network teaching platform, display the meaningful content in the students' activities process in the network platform. These activities content can be used as auxiliary materials of teaching for more students to learn and refer to.

### **3.2 Internet + training**

The Internet technology is applied and throughout the whole process of teaching, to make students re-understand electronic commerce management and service mode of the new era, to create a network intelligent electronic commerce environment, and to ensure that students' practice courses can be carried out in the completely real environment. And make use of mobile Internet to open a micro shop, allowing students to promote. In the process of students in the micro shop training, they can more deeply apply and enhance the memory of the knowledge learned in e-commerce, which can not only improve the running and management operation ability of using Internet technology skills, but also consolidate the knowledge learned.

### **3.3 Internet + evaluation**

Teaching evaluation is the process based on the teaching objectives, in accordance with scientific standards, make use of all effective means of technology to measure the teaching process and the results and give the value judgment [6]. The main function of teaching evaluation is feedback, diagnosis, regulation, motivation and so on.

1. Reconstruct "Internet +" teaching data analysis index. Construct "Internet +" online course background big data statistical analysis system. With the help of the Internet course platform, we can realize the real-time record of a large number of data of students' self-selection, participation of discussion, quiz, homework, examinations and so on, and carry out high-speed processing of large amounts of data, such as online learning time, time to participate in the discussion, time of quiz, homework completion and examination results etc.

The teacher can grasp the feedback of students' learning in the first time, and make a diagnosis to the students' learning situation, so as to adjust the teaching plan in time, and guide students to study more targeted and effectively. The evaluation method of "Internet +" era based on big data statistical analysis, compared with the traditional teaching evaluation, is more scientific, accurate, fair and impartial. At the same time, advanced data mining technologies brought by "Internet +" can help us to

better predict the new direction of vocational education reform development based on the analysis of these data.

2. Construct accurate positioning and clear level "Internet +" vocational qualification certification system. Vocational college graduates to obtain professional qualifications and vocational qualification certification is a stepping stone for students to apply for a job. Integrate professional qualifications and vocational qualification certification that evaluate the students' vocational ability into daily teaching process and stimulate students' learning motivation. Through the comprehensive evaluation on students' learning process and results of a series of related vocational curriculum, judge whether it reaches the relevant vocational specific requirements, and qualified and excellent students can obtain the relevant qualification certificate.

#### 4. Teaching effect analysis

In this paper, the curriculum design for e-commerce professional students, "network marketing" course was taken as an example to carry out the trial. The subjects were 50 e-commerce professional students, divided into two groups and eliminated the original results interference. In the two groups, excellent and poor students are similar in the number, each group of 25 people, a group of experimental group (using the "Internet +" teaching mode), the other group of the control group (using traditional teaching mode). As shown in Figure 1, they are the results of students before the experiment and the results after doing the teaching experiment for a semester. Investigate the final results of students participated in the course, analyze the comparison results between the experimental group and the control group, and make use of Excel for statistics. The statistical results are shown in Figure 2:

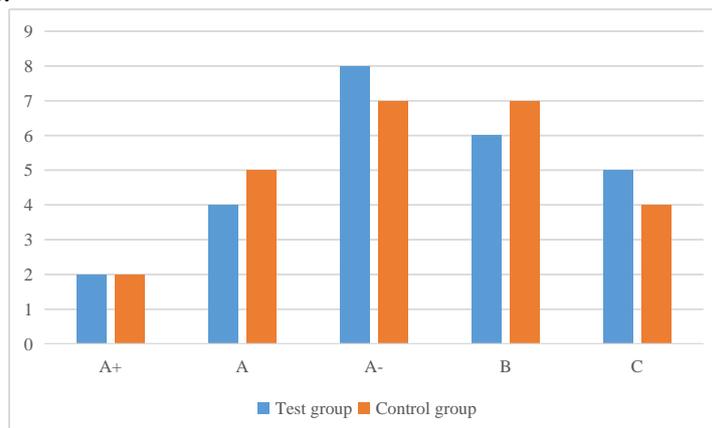


Figure 1. Comparison of the two groups before the experiment

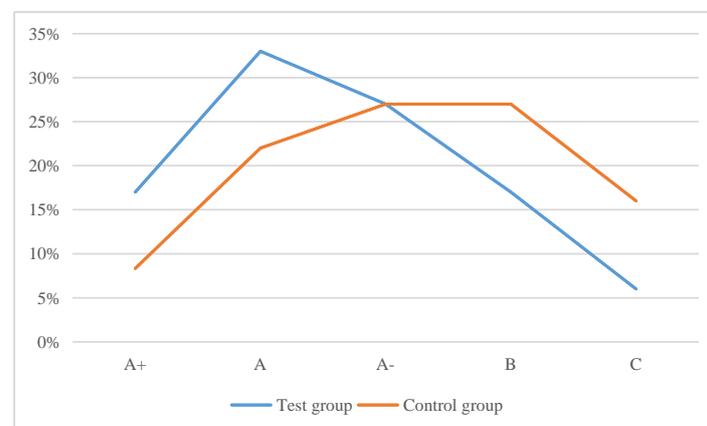


Figure 2. Final score comparison chart

By the comparison of the final results in Figure 1, we can see that in the final score of the experimental group, those can be rated as an accounted for 76.8%, nearly 20% more than 57.3% of the control group, and the score of C in the control group is 2.5 times of the experimental group. The

students in the experimental group had a higher level of mastery of the "network marketing" course than the control group, and the number of people with weak knowledge was less than that uses the traditional teaching methods. Now, it is only preliminary practice, not formed a complete system, but achieved good teaching effect, which indicated that the practice of "Internet +" teaching mode is feasible and it is the teaching method more popular with the students and more effective. The students in the experimental group, after a semester of study, are different from those in the control group who feel terror of examination and want to avoid. On the contrary, they think the test is to examine their own knowledge and to display their half year learning results. Students have more desire to show and become more self-confident, and believe that their learning will get the affirmation of the teacher. They expect to show their learning results for a semester through the examination and assessment.

Students perform course learning through the "Internet +" teaching mode, so they not only learn knowledge, but also learn how to use the Internet to operate a micro shop. Also because the "Internet + learning" teaching mode is different from the traditional teaching mode privacy, the students are gradually restoring confidence in learning.

## **5. Problems and solutions**

### **5.1 Improve teachers course information construction and application level**

In the new teaching mode, students can learn the basic theory knowledge by online video and mobile client. The class teaching is mostly based on solving the problems and practice teaching, so teachers need to prepare rich practice teaching and case teaching materials in advance, and illustrate and train for students' questions proposed in the classroom and learning focuses and difficulties. As a result, based on the Internet "Online + offline" mixed teaching mode, it requires teachers not only to have a solid theoretical foundation, but also to have a rich practical teaching experience. At the same time, the most important thing is strong information construction ability and using ability. Combined with the focused teaching content in "network marketing" course, teachers need to make the micro courses, and transform the traditional teaching content into more intuitive knowledge easier for students to learn and master. In consequence, teachers can get rid of the shackles of the educational theory of emphasizing theory but ignoring practice, and flexibly deal with the problems encountered by students in the course of study and practice.

### **5.2 Use data analysis to enhance learning effect visualization**

Data analysis needs to be supported by hardware and software, and the data is collected by hardware, such as servers, storage devices and so on, to collect students' online learning time and learning length, online course hits, online answer accuracy rate data; and then through the database, data collection software, intelligent search software, to gather and analyze the data, to find out the difficulties of learning and learning interest. According to the problems reflected in the data analysis, adjust the content of the course and teaching methods, so the teaching is more targeted, to make teaching resources achieve accurate delivery, so as to achieve better teaching results.

### **5.3 Integrate high quality teaching resources to reflect multiple interactions**

Based on the integration of resources, it is necessary to emphasize the interaction between "teaching and learning". The interaction is to rely on the new teaching mode of Internet, no longer relying solely on human teaching and dissemination of knowledge, but through the use of network source to achieve one-to-multiple tutor learning. Based on the existing network teaching platform, conduct teaching video playback, and in the meanwhile use the existing social software for setting up the exchange group between the teachers and students to make interactive communication, to achieve whenever and wherever possible multi-angle and multi-channel exchange of learning and make learning more of life.

## **6. Conclusion**

Under the background of "Internet +" era development, the transformation of the traditional economy and backward industries will be eliminated, and the emergence of new economy and new

industries will replace the traditional economy and industry. Vocational education, in the change brought about by the "Internet +", needs to seize the opportunity for practice and self-reform, so as to form characterized vocational education in the social environment with rapid economic development, and thus provide good service for the national economy transformation, and cultivate a group of composite talents with the practical ability and innovation ability for the new economy and the new industry. This paper, based on the "Internet +", made the reform research on the teaching mode of e-commerce major in vocational education, and put forward the teaching plan of "Internet + teaching" and "Internet + entrepreneurship", and "Internet + evaluation", thus forming a new "Online + offline" learning mode. The teaching results showed that students who accepted "Internet +" teaching model achieved better teaching effect than those who accepted traditional teaching mode. On this basis, the paper put forward the problems and solutions in the course of the study.

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