

# Research on "Internet +" Mobile Learning Mode Based on Wechat Public Platform

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**Abstract**—With the popularization of smart phones and the rapid development of "Internet +", this paper has introduced a teaching mode based on Wechat public platform mobile learning. In this paper, based on micro letter public platform of "Internet +" mobile learning research carried on the detailed design, implements the education and technology integration, for college students under the environment of formal and informal learning provides a new learning model. It provides a new way to promote the cultivation of students' independent learning and innovation ability.

**Keywords**—Wechat public platform; mobile learning; teaching model; autonomous learning

## I. THE SIGNIFICANCE OF RESEARCH ON MOBILE LEARNING MODEL BASED ON MICRO - CREDIT PUBLIC PLATFORM

With the rapid development of mobile communication technology around the world, people can easily read and learn from the Internet through mobile phones. WeChat as a new network tools, has been widely used among college students [1], so that mobile phone-based mobile learning will be a new hotspot in educational technology research [2]. China Internet Information Center (CNNIC) released the 37th "China Internet Development Statistics Report" showing that as of December 2015, China's mobile phone users reached 630 million people which accounts for 90.1% of the total number of Internet users and mobile phones are becoming the main Internet Terminal [3] and smart phones have become an indispensable part of people's lives, 90 students will undoubtedly become the main force of smart phone users. Based on the characteristics of mobile media portability and interactivity, it can provide a new learning space for educational development, which makes the teaching mode of college education not rigidly adhere to the traditional classroom teaching. Mobile teaching can provide a lot of learning materials so that according to their own learning interest learners can become cross-regional, cross-school, cross-professional at learning through communication technology. The learning model of mobile learning is gradually

being attached great importance to universities and universities at home and abroad.

1. Based on WeChat platform mobile learning as a network learning mode, combined with the traditional teaching and learning methods, is a new innovative teaching model. The combination of the two can not only play the teacher in the entire teaching process as the guidance, inspiration, monitoring the leading role, but also fully reflects the students in the learning process of cognitive initiative and innovation.

2. Mobile learning mode of learning clarifies the student as the center to solve practical problems for the transition period of education objectives, and enhance students' ability to self-learning in order to cultivate students' practical application ability to provide a new learning environment.

3. Mobile learning's learning model has rich and flexible learning interaction and with it students can conduct online learning or curriculum resources to download, get rid of time and space constraints so as to help students to learn. Teachers can answer questions online, to improve mutual learning Cohesion.

4. Mobile learning can provide learners with independent, open and rich learning space, which can meet the individual needs of learners, and provide appropriate learning content, learning activities and other learning support services for learners with different styles and starting points.

## II. WECHAT PUBLIC PLATFORM MOBILE LEARNING SYSTEM

### A. Based on the establishment of the teaching idea of mobile learning

Micro letter is the user's largest interactive mobile phone software, it support network quickly send text, voice, video, images, with its features such as free, convenient and portable, rapidly after the 90 college students in the popularization, also provide under the network environment of college students a

new learning platform. According to preliminary investigation in the teachers and students WeChat software in the penetration rate is very high, the teachers and students for its familiarity and application degree is higher also, are the basis and conditions of courses in WeChat platform. To establish a student-centered, to solve practical problems for the concept of education and teaching, educators should adapt to China's higher education to the needs of application-oriented change. College students' learning behavior will occur more in non-teaching context, teacher-led learning gradually become less, learning will be more by the learner's autonomous learning [4]. WeChat platform can share the curriculum resources, interactive, and mobile terminal time and space flexibility which can effectively make up for the lack of classroom teaching and conduct the second classroom learning.

### B. Design of mobile learning system based on WeChat platform

Irish educational technology expert "Desmond Keegan" has proposed: "From d-learning, to e-learning, to m-learning" [5]. The article has been supported by many scholars including Chinese famous distance education expert Ding Xingfu who translated it into Chinese "From distance learning to e-learning to mobile learning". M-learning is the abbreviation of mobile learning. M-learning is the mobile communication, network technology and education of the organic combination. It refers to the idea of life-long learning, the use of intelligent terminal equipment for distance learning which breaks the wired

connection. It is possible to realize an efficient learning method which can realize the free learning according to their own learning needs and greatly improve the learning efficiency and fully mobilize the learners' interest in learning. And based on the WeChat platform learning mode is also an M-learning mobile learning model.

WeChat public platform is provided by Tencent Company in the WeChat based on the new functional modules. Through this platform, both individuals and groups can create a WeChat public number. You can send text, pictures, voice, video; graphic messages five Category of content. WeChat users can apply for public account and with this account through the Http transmission protocol sent to the WeChat server platform. WeChat server is responsible for the server information transceiver and encapsulated in XML format sent to the course auxiliary server-side message interface. After the server-side message handler processes the message, it will need to re-encapsulate the information into XML format and send it to the WeChat server, which sends the reply message to the user terminal. WeChat users, WeChat public server, curriculum system server and database constitute the micro-public platform system structure shown in Fig. 1. The use of the system's client and server using loosely coupled connection by calling the development platform API interface. To develop user interaction and system functions based on the original function to add new features you only need to call the server in the development interface can be completed, greatly saving the overall cost of system construction.

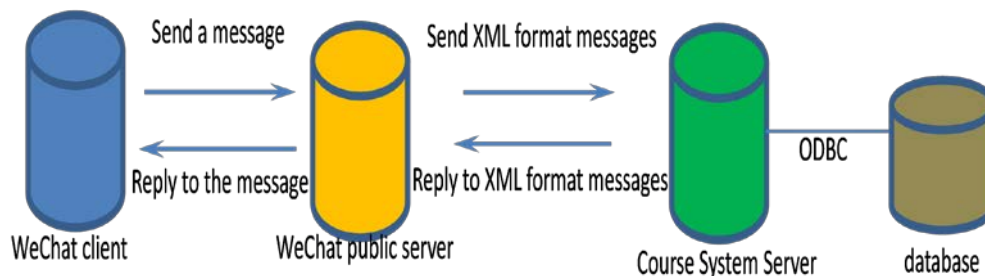


Fig. 1. WeChat public platform system composition

## III. DESIGN OF MOBILE LEARNING TEACHING SYSTEM BASED ON MICRO - CREDIT PUBLIC PLATFORM

The interactive mode of WeChat makes the information interaction more flexible and diversified. The new platform supports the development of mobile learning application more convenient and efficient. The design and research of micro-platform will promote the innovation and progress of mobile learning application [6]. The teaching design is divided into five parts: system setting, announcement notification, course study, exchange interaction, ability test and so on. Specific application design research as shown in Fig. 2 WeChat public platform mobile learning teaching system design shown.

### A. System settings and announcement notice

Administrators can set up system announcements, course notifications, user rights, time and space allocation of system course resources, and monitoring of server hardware usage.

### B. Course design

The course is divided into two parts: teacher management and student management. In the teacher management module design, teachers cannot only edit the teaching resources online, but also through the content string focus on analysis, after-school exercises, knowledge development, knowledge and skills, curriculum video, cutting-edge technology modules on the teaching content re-structure. And it also can provide students the relevant information related to the latest materials which they are more interested. The relevant curriculum

resources classify the students to the mobile phone client. Teachers can be unified management of curriculum resources, student-centered, to solve practical problems as a prerequisite, the course content in accordance with the focus and difficulties to form a clear, relatively independent knowledge points. According to the learner's learning background and learning personality, knowledge Content is updated regularly. In the student management module settings, learners can keep abreast of the latest curriculum resources according to course classification, course name, teacher's name to pay attention to their favorite curriculum resources. They can be flexible regardless of time and region online learning or download learning resources.

### C. Exchange interactive learning design

Teaching and learning is an interactive process. The traditional teaching model has not adapted to the social network highly developed status quo. The students want to communicate with teachers more direct and more convenient. Teachers also hope to receive timely feedback from learners [7]. The interaction between teachers and students is a very important part in the teaching and learning. Teachers can understand the current situation of students' learning in the course of curriculum construction. The teachers can re-sort the contents of teaching knowledge regularly according to the development and needs of the society. Students learn the latest curriculum information resources according to the learner's learning state calculation to adjust the teaching content and teaching methods. Students can interact through the deepening of the understanding of knowledge points, inspired thinking, passive to take the initiative to make up for the second classroom auxiliary learning. In the learning process if you have any questions, you can directly through the WeChat to ask questions and answers, or to ask questions to teachers. Teachers can mass information and layout operations and also from time to time through the platform answer questions. Common issues can be released for other students to learn to improve learning efficiency. Communication between teachers and students, learning resources sharing and real-time SMS exchange are conducive to the formation of a good learning environment for learners, especially when students encounter

problems. Teachers can give effective learning support, through the interaction to push information the content, the content, sharing and discussion as a whole the knowledge quickly and quickly pushed to the students in front of breaking the time and geographical limitations so that learning has become a communication which deepens the exchange of feelings between teachers and students, exchanges learning experience, and clears the psychological problems. So communication becomes rich and interesting, not only strengthened the learner's ability to learn independently, but also strengthened the heart and heart between the emotional exchange of teachers and students. In the evaluation of teacher and student ability, including the ability of teaching and learning evaluation, learning process information collection and analysis will be implied in the learning process of teaching and learning information clarity, clarification, for teachers and students to provide timely Information feedback to mobilize teaching and learning. The evaluation of teaching can not only evaluate the ability of teachers, but also evaluate the teaching content of teachers, evaluate the teaching content of the course, evaluate the mobile learning system, and so on. The evaluation of teaching ability can not only improve the quality of teachers 'teaching, but also broaden the students' ability of autonomous learning and innovation.

### D. Ability test management design

The course assessment is an important means to test the teaching effect between the teacher and the student and it is the fundamental guarantee for the successful completion of the established teaching goal. Teachers can be based on teaching requirements and teaching objectives. The establishment of background online examinations, flexible examination methods, real-time update the examination content, tap the students deeper level of potential so that students do not dogmatically learn to learn by analogy, in-depth thinking. To solve the problem, to cultivate students from the "one-way thinking", to "multi-directional thinking", to enhance students' innovative thinking ability and space, student-centered, teachers pay attention to cultivate students to solve the problem of practical ability. The application of the ability to do the basis for preparation.

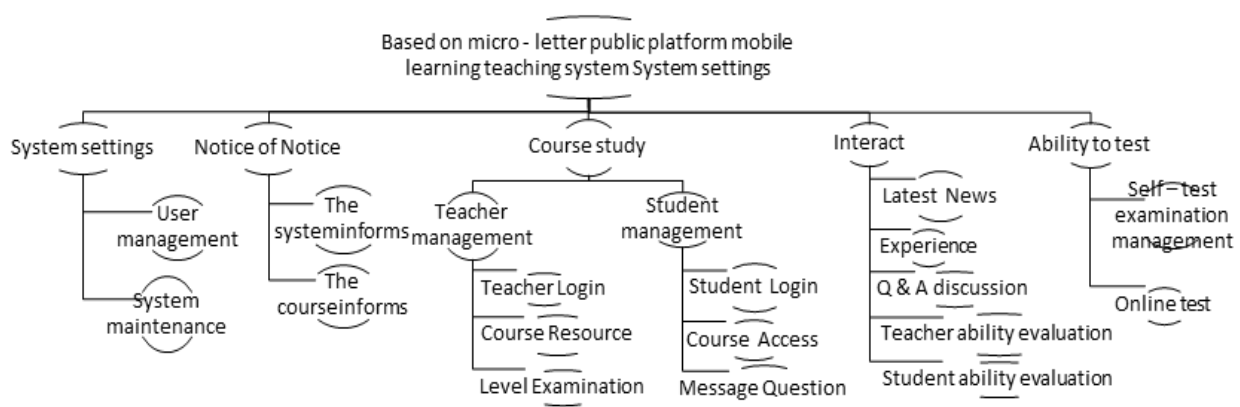


Fig. 2. WeChat public platform mobile learning teaching system

#### IV. CONCLUSION

"Internet + education" must be the Internet era of education reform [8] which based on WeChat public platform mobile learning system. Through the computer course teaching combat, it initially achieved a good teaching effect, set a student-centered to solve the reality Problem-oriented teaching philosophy so that students in time and space to achieve a fragmented learning through instant messaging for students to provide multi-angle, multi-level, multi-type interactive way to protect students in a timely manner. While learning online to ensure good Feedback and ability evaluation mechanism to break the time and space constraints, teachers provide students with a flexible way of learning which is no longer a personal act, or confined to one-on-one communication with teachers, a variety of interactive ways to make personalized learning. Collaborative learning is possible. For teaching and learning ability evaluation of the design, both teachers and students have a comprehensive ability to enhance the full training of college students 'awareness of innovation and practical problems to enhance the ability to improve and cultivate students' teamwork, collective concept, self-learning ability, innovation, communication and coordination, organizational skills, planning skills, decision-making skills and leadership. Compared with other forms of learning, mobile learning has the characteristics of personalization, learning convenience, contextual correlation, cross-time and space, interactivity, mobility, timeliness, hypermedia, and ubiquity. In the future, education will create a new learning and teaching model, to achieve what the traditional teaching model cannot achieve [9]. Mobile learning is bound to be one of the trends of future learning. Although it plays an irreplaceable teaching interaction effect in college students' education and teaching, and effectively promotes and improves the quality of teaching. But after all, it cannot completely replace the current mode of education and teaching in our country. Its own function is not

enough to meet all the needs of teaching. At present, the micro-public platform in the process of running, managers cannot count the number of read; share the number of various forms of audio file recognition. It reduces the threshold of authentication and other issues will be studied and improved. How to micro-public platform and college teaching Seamless integration of the problem which will be the next step for us to solve and study.

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