

Research on Mobile Learning Mode based on “Chaoxing Learning Platform” Taking the Course Econometrics as an Example

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Abstract

In network era with so fast information transmission, knowledge acquisition and absorption is no longer single, therefore, higher education is experiencing a severe test. For the purpose of stimulating the interest of learning and cultivating learners' more active and more in-depth participation in autonomous learning ability, it is of great significance to take the autonomous learning ability as the guidance, use the mobile learning platform, and combine the traditional classroom and mobile learning. The application of mobile learning into the teaching activities of Econometrics fully embodies the characteristics of students' initiative, teachers' guidance, process interaction, diversity of methods and flexibility of measures. It can stimulate students' learning enthusiasm and initiative, so that students gradually cultivate the ability of autonomous learning and lifelong learning will.

Keywords

Chaoxing Learning Platform; Mobile Learning; Econometrics.

1. Introduction

The concept of mobile learning can be traced back to the “Mobile Education” project launched in 2000 by the Human-Computer Interaction Laboratory of California Berkeley. Since then, domestic and foreign scholars have carried out a lot of research on mobile learning from multiple perspectives. D. Keegan (2002) believes that mobile learning is a new development of distance learning and a resource-based learning [1]. Dye A., et al. (2003) believe that mobile learning is a learning form supported by technology. The assistance of mobile devices and resources expands the learning time and space and completes the communication between teachers and students [2]. Laouris Y., Eteokleous (2005) define mobile learning as E-learning that uses mobile devices or learning connected to a mobile device[3]. Klironomos I., et al. (2006) believe that mobile learning is an extension of digital learning, which can expand the scope of education and promote the development of personalized learning and lifelong learning [4]. Zhang Hongli (2010) believes that mobile learning (M-learning) is the third learning method after distance learning and electronic learning (E-learning). It is a new learning method and a special digital learning method [5]. Haag J. (2011) believes the real potential of mobile learning should not only be described as the learning content passed or accessed on mobile devices. It should be regarded as a way to increase learners by providing learning content or supporting information. Mobile learning should not only be regarded as a new flavor of substitution, substitution or as a means of providing existing education or training. It should be seen as a complementary way to increase or enhance an environment that already supports learning [6]. Little B. (2012) believes mobile learning can deliver the right information to the right person at the right time better than any other learning/teaching technology yet devised [7]. West D. M. (2013) holds that mobile learning not only fosters the way learners access information, but also

helps learners be innovative and good problem-solvers [8]. Priyanka Gautam (2018) believes mobile learning is a broad term used to refer to any teaching and learning that happens with the use of mobile devices and platforms [9]. James Thomes (2019) believes mobile learning is a new way to get access to a variety of content available online through the use of a mobile. Mobile learning is the easiest way for students to get help [10].

A more generally accepted definition is that mobile learning is a new form of learning that uses wireless mobile communication network technology and wireless mobile communication equipment, personal digital assistants to obtain educational information, educational resources and educational services.

2. A New-type Mobile Learning: Chaoxing Learning Platform

“Chaoxing Learning” is a mobile learning professional platform for smart phones, tablets and other mobile terminals. It has rich electronic resources and perfect teaching interaction functions. Via self-help, users can complete the library collection query, electronic resource search and download, library information browsing, school courses learning, group discussions, and the school address list searching on Chaoxing Learning Platform. At the same time, the platform boasts electronic books, newspaper articles, and Chinese and foreign literature metadata to provide users with convenient and convenient mobile learning services.

The platform organically integrates advanced teaching technology, advanced teaching concept and real classroom teaching needs, promotes the diversification of classroom teaching methods, and effectively improves the teaching effect. According to statistics, there are more than 6,000 colleges and universities in China to build online open courses based on the platform, publish and share teaching resources. The platform provides data upload, performance statistics and other functions, which can record the whole process of teaching and interaction between teachers and students in real time [11].

As a widely used mobile learning platform in China, “Chaoxing Learning” has the following main advantages: first, it is rich in resources. “Chaoxing Learning” originating from dealing with resources, has accumulated massive resources after more than 20 years of development. All kinds of rich resources can be found through the home page, including all kinds of courses, videos, e-books, journals, papers, newspapers and special topics, and all resources can be used free for users. The second is data synchronization. Chaoxing mobile learning platform and PC terminal network teaching platform keep synchronous in learning data, including lesson data, learning data, classroom interaction data, etc. The third is a complete learning module containing before-class notification, data upload and distribution modules; interactive modules such as signing, voting, selecting, answering, practice in class, and topic discussion; after-school review, assignment arrangement, examination and other knowledge consolidation function modules. The fourth is the social function. Through the unit account real-name login, users can fulfill inner-school and inter-school network social functions, and join various interest groups. In addition, each new user will automatically join the dormitory group with a dedicated person in charge. Any use problem can be asked at any time, and 24-hour online service is available.

3. Mobile Learning Model of Econometrics based on “Chaoxing Learning Platform”

Econometrics is a new economic discipline that emerged in the 1930s to meet the needs of Western governments to predict economic fluctuations and prevent economic crises. With the development of world economy and the progress of human society, the theoretical system of econometrics is becoming more and more perfect, and its application is becoming more and more extensive. As a simple and convenient tool and method, econometrics has gradually

developed into the most important branch of economics. In July 1998, the Education Steering Committee of Economics in Colleges and Universities of Ministry of Education of the People's Republic of China approved Econometrics as one of the eight core courses of economics majors in colleges and universities. Its teaching level has become an important part of the evaluation of economics majors in colleges and universities, which marks the modernization and scientization of scientific research, education and application of Econometrics in China.

Econometrics is a branch of applied economics. It is an economic discipline based on certain economic theories and facts of economic data, employing mathematical, statistical methods and computer technology to quantitatively study the relationship and law of economic quantity by establishing econometric models. With the progress of the times and the change of discipline characteristics, online learning represented by mobile learning is also gradually changing the teaching mode of teachers and the learning mode of students. In recent years, relying on modern educational technology, Econometrics teaching has made rational use of intelligent mobile terminals in the teaching process, explored the online and offline hybrid teaching mode, continuously optimized teaching organization, enriched teaching content, improved teaching methods, and improved teaching quality. The teaching practice of Econometrics shows that the learning effect of mobile learning combined with classroom learning is stronger than that of mobile learning alone.

3.1. Before-class Section: Teaching Organization

The proper preparation before teaching is the guarantee of classroom teaching quality. Teachers can be fully prepared for teaching materials via Chaoxing Learning Platform. First of all, before teaching, teachers can upload the teaching video, teaching software, teaching cases, data resources, reading literature and related learning websites of the course to "data" section according to the teaching syllabus, teaching plan and teaching objectives of the Econometrics course, and can set the task points and related knowledge points of the chapters. In addition, in Chaoxing Learning Platform owns a large number of e-books, newspapers, articles and other resources. Teachers can also use these rich teaching resources to select appropriate and typical expanded knowledge for students of different major Secondly, for before-class section, teachers can remind students to conduct before-class preparation and complete related tasks by issuing notices on the platform. Students can login Chaoxing Learning Platform through mobile phone or computer, flexibly choose the learning time and place for autonomous learning, and complete the course related task points in advance. This mobile learning mode will ensure and improve the quality of students' preview.

3.2. In-class Section: Classroom Interaction

Econometrics is a discipline with strong practicality and has dual positioning of theory and practice, which requires that the theoretical teaching and experimental teaching of Econometrics should be two complementary components, and they should be indispensable. While imparting knowledge to students, the teachers should emphasize the ability to combine measurement methods with economic management theories and analyze economic problems by using measurement methods. Therefore, in the process of classroom teaching, teachers should always pay attention to students' understanding and mastery. In the traditional teaching of econometrics, the process of imparting knowledge to students is the process of understanding the content of teaching materials through the "injection" teaching method. Teachers teach more and ask less or even don't ask. At the same time, students are more "passive acceptance", less "active thinking" or even not "thinking". Therefore, the traditional teaching method leads to the lack of interaction and communication between teachers and students, which to some extent inhibits the enthusiasm of students' active learning and the cultivation of innovative spirit.

Presently, via Chaoxing Learning Platform teachers and students can make more convenient, smooth learning interaction. First of all, in order to check the attendance of students, in traditional classroom teachers often use the method of oral naming, which is time-consuming and laborious, and takes up more classroom teaching time. Now teachers can use electronic check-in mode in Chaoxing Learning Platform(ordinary check-in, gesture check-in, position check-in, two-dimensional code check-in and check-in code), so as to master the attendance of students in a more more convenient way [12]. Secondly, in the process of teaching course, teachers can make use of the functions of voting, selecting, answering, in-class practice and topic discussion in the platform to enable students to actively participate in classroom communication, interaction and feedback activities, generate two-way interaction, and improve the frequency of teacher-student interaction, which improves the classroom learning atmosphere and the learning effect of students.

3.3. After-class Section: Consolidation and Feedback

The most important point of mobile learning is that students can make full use of their learning time to achieve autonomous learning, review the theoretical knowledge in a timely manner and communicate with teachers anytime and anywhere [13]. Therefore, consolidation and feedback in after-class section of Econometrics learning is also very important for the improvement of learning effect and quality. Firstly, teachers should combine before-class preview and in-class learning feedback, summarize the common problems of students, analyze the reasons and put forward suggestions. Secondly, teachers can use the learning platform to publish homework, chapter tests, examinations and reading to consolidate and improve relevant knowledge, and also can detect students' mastery of knowledge. Third, teachers should answer and reflect on students' questions, combine teachers' guidance with students' autonomous learning, combine imparting knowledge with solving problems, and promote the development of students' creative thinking, so as to improve the teaching effect. Finally, teachers can evaluate the course according to students' process performance and comprehensive learning performance in three sections of before-class, in-class and after-class.

4. Conclusion

The application of mobile learning into the teaching activities of Econometrics fully embodies the characteristics of students' initiative, teachers' guidance, process interaction, diversity of methods and flexibility of measures. Students' initiative is manifested in students' participation in the three sections of inquiry-discussion-practice in teaching, thus forming a high rate of communication participation and stimulating students' enthusiasm and interest in learning. The teacher's guidance performance is that the teacher carries on the role transformation timely in the three sections of inquiry-discussion-feedback, carries on the theory teaching, the discussion interaction and the appraisal, transforms from the roles of original knowledge disseminator and the knowledge system presenter to the roles of student study guide, the knowledge resources design constructor. The interactivity of the process is reflected in the fact that in the teaching process, teachers enter the students' learning deeply with the attitude of instructors, and constantly exchange and feedback teaching information with students. The diversity of methods is manifested in the use of multiple teaching methods in different teaching sections. Therefore, the mobile learning mode of Econometrics is in line with the goal of cultivating talents in colleges and universities and the teaching requirements of Econometrics courses. It can stimulate students' enthusiasm and initiative in learning, and gradually cultivate students' autonomous learning ability and lifelong learning willingness.

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