Smart Terminal Applications Applied in the Construction of Intelligent Curriculum of Logistics English Course

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Keywords: Intelligent curriculum, Smart terminal applications, Logistics English course, Xuexitong

Abstract: With the development of globalization, the internationalization trend of the logistics industry is becoming more and more obvious, and the requirements for the foreign language proficiency of logistics talents are getting higher and higher. As a compulsory course for logistics management majors, Logistics English course plays an important role in cultivating international logistics talents who respect the world's multiculturalism. The popularization of Internet technology and intelligent terminal equipment has played a very good auxiliary role in the logistics English teaching. This paper analyzes the application of the smart terminal app Xuexitong platform in the construction of intelligent curriculum, and calculates the reliability coefficient Cronabach's α and validity KMO value to demonstrate the teaching evaluation results, and puts forward suggestions for the reform and construction of intelligent curriculum.

1. Introduction

After the concept of "Internet +" was put forward, it has become a powerful force to promote changes in all walks of life. It is changing traditional industries at an unpredictable speed, and education has also actively joined the wave of innovation. In the field of education, logistics education is a relatively fast major. With the development of economic globalization and the continuous expansion of the global logistics scale, the demand for logistics talents is no longer ordinary labor, but comprehensive international logistics talents. As an application-oriented undergraduate college, how to cultivate the people needed by the society is an urgent problem that needs to be solved at present. With the rapid popularization and development of Internet technology and smart terminals, the traditional education model is no longer suitable for current college students [1]. Therefore, making full use of Internet technology and smart terminal apps and other technical means is the only way to explore intelligent curriculum for Logistics English.

Xuexitong is a professional mobile learning platform developed in 2016, and has special mobile APP and contains various micro-applications related to teaching and learning. This platform also has more than one million e-books, massive newspaper articles and metadata of Chinese and foreign documents, providing users with mobile learning services [2]. With the rapid development of the information age, the education and teaching model has also undergone earth-shaking changes, and "Internet + education" has been more and more widely used. This paper analyzes the application of the smart terminal app Xuexitong platform in the construction of intelligent curriculum, and demonstrate the teaching evaluation results, so as to put forward to the implementation path and method of intelligent curriculum.

2. Teaching implementation

In the course design and development process of intelligent curriculum, logistics English course is guided by the curriculum concept based on ability-based and work process, pays attention to students' abilities and needs, and integrates the curriculum through action-oriented, which aims to achieve the course objectives of industry capabilities focus and process assessment oriented.

2.1. Course design based on real work process

First of all, logistics English course breaks the previous teaching modules in the construction and implementation of the intelligent curriculum. Through extensive enterprise research and practical expert interviews, according to the job requirements of enterprises for the English application ability of logistics talents and the actual English level of students, based on the work process Course design, logistics English course recognizes and integrates course structure and course teaching content [3]. Xuexitong platform is open to students. Teachers set task points on the platform, require students to study relevant audio and video files after class, and upload the files collected and processed by students themselves. In this way, the interaction between teachers and students can be achieved. Through the support by Xuexitong platform, students can complete the expression of all aspects of logistics management; understand the dialogue in the transportation process, clearly express the expressions of various transportation, and learn to choose the transportation method according to the nature of the goods.

The nine modules in the logistics English course teaching include logistics, supply chain, transportation, warehousing, inventory, customer service, import and export, international logistics and logistics information system. The teaching content of each project is selected according to the job requirements in practice. The teaching content should be selected according to the knowledge, ability and quality requirements of completing work tasks. These teaching contents cover the cultivation of English listening, speaking, reading, writing and translation skills that students will need in real logistics jobs in the future, as well as the cultivation of their professional ability and professional quality. In the practical teaching stage, students conduct simulation training with different identities and roles such as "buyer", "seller", "carrier", "customs agent" and so on, to lay the foundation for truly entering the workplace.

2.2. Create more intelligent curriculum learning situations

The link between the teaching and the work process is the learning situation and learning project, making full use of intelligent terminals and Internet technology, to create more intelligent curriculum learning situations and change the original traditional classroom teaching mode.

(1) Multiple classroom activities are set up on the Xuexitong platform, including check-in, voting, selection, quick answer, topic discussion, in-class practice, questionnaire, grading and so on. For example, teachers can use the Learning Link platform before class to sign in by gesture, location, QR code or sign-in code instead of the traditional classroom teacher's name-calling, which not only saves time and improves classroom efficiency, but also increases classroom fun and interaction with students.

Taking the students of Grade 18, Class 1 as an example, after Logistics English course achieve one round of intelligent curriculum, the number of classroom activities on Xuexitong platform released is as follows: 24 times of sign-in, 10 times of voting, 10 times of selection, 7 times of quick answer, and practice in class 6 times. As the figure 1 shown as below:

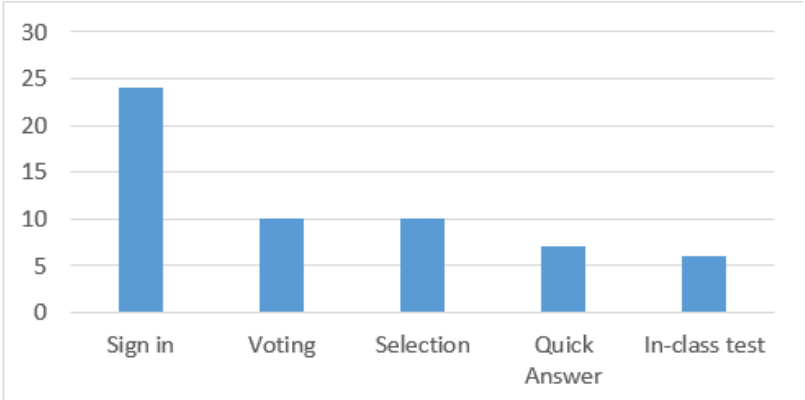

Figure 1 Quantity of Classroom Activities on Xuexitong App

(2) In addition to classroom teaching, make full use of the basic English knowledge and skills training platform, smart classroom, Xuexitong platform, SIG foreign trade correspondence software platform and so on, to achieve dialogue, group discussions, on-site recording, audio-on-demand,

simultaneous voice Interpretation, paperless examination, independent study and other multiple functions.

(3) Teachers can set relevant task points through Xuexitong platform, providing students with a virtual logistics company environment. By simulating the form of foreign trade correspondence in real business scenarios, they can cultivate students' logistics English skills and business philosophy and team spirit.

(4) Make full use of Xuexitong platform to carry out colorful, flexible and diverse extracurricular practical activities, such as: professional English speaking competitions in the class. There is a data section in the Xuexitong platform. This section is mainly used to share data with students in the construction of logistics English courses, including relevant audio data, requiring students to read, so as to exercise students' ability to "listen" and "read" ; Teachers can require students to download and translate relevant literature and courseware materials after class, so as to exercise students' ability to "translate". Meantime, teachers can view students' learning status in real time

(5) Online open learning platform: Xuexitong provides students with some excellent online MOOC websites, the online electronic version of the course content, including analysis of key and difficult points, multimedia teaching plans, teaching courseware, electronic teaching materials, electronic listening files and reading materials, test questions Library and so on., provides students with a platform for independent learning, and strengthens the cultivation of students' logistics English skills from another level. In addition, because there are many teaching directions, it is planned to cooperate with the training unit to create a real learning situation for students, integrate the learning process with work, and form a learning atmosphere where learning is work. In this way, logistics English course not only teaches English knowledge and professional knowledge, but aslo presents the real processing of logistics customer service, purchase, warehousing, inventory, packaging, transportation, customs declaration, insurance, and so on[4].

The resources of this course on Xuexitong include 37 videos with a total duration of 18 hours and 47mins, 16 audios, 49 documents in total, and 5 other resources including animations and pictures. As figure 2 shown in the below chart:

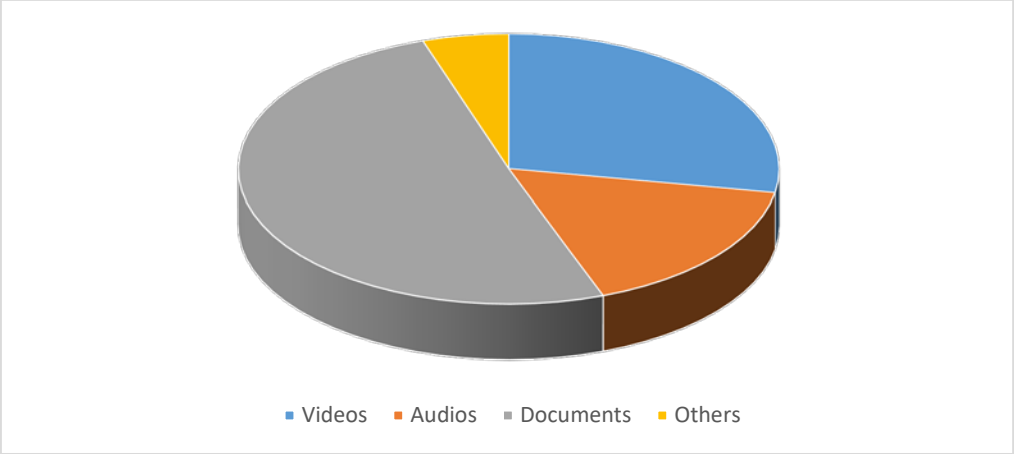

Figure 2 The Resources of Logistics English on Xuexitong Platform

(6) Staged assessment. That is to say, there is a class test every three units. Each test is treated seriously according to the standard of the final exam. The results are included in the final assessment. In this way, students have a firmer grasp of the basics.

2.3. Update teaching materials

Logistics English course has always been based on two textbooks. Among them, "supply chain logistics management" (the fourth edition of the original English book), written by Donald J. Bowersox, is an original foreign textbook and a classic in the field of logistics supply chain. This textbook allows students to Familiar with authentic English expressions in the field of logistics, and also provide support for students to supplement theoretical knowledge. And another textbook "Contemporary Business English Listening and Speaking Course" mainly trains students' listening

and speaking and the ability to use logistics English. The use of the two textbooks is based on the work process. The course needs to re-integrate the original teaching content according to the actual work process. The course construction can break the inherent knowledge system of the original logistics English textbooks, which fully reflects the practicality and operability, and highlights the practicality, the times and the forward-looking of the course content.

2.4. The application of the action-oriented situational method

The action-oriented situational method is applied to most of the teaching units in the logistics English course [5]. The following is an example of the container unit in the practical teaching part of Chapter 10 to illustrate the application of the action-oriented teaching method in the course.

Teachers create real career situations. For example: A trading company in Guangzhou wants to ship one container load shipment to Brazil. The consignor should first get information about container transportation from various shipping companies by phone or email, including: types of containers, dimensions of containers, receiving and delivery system of container goods, Freight, etc. Choose a suitable shipping company and fill in the container booking note to book space with the shipping company. After accepting the application, the shipping company compiles the booking list for cargo handover.

3. Method of course teaching evaluation

After the Logistics English course achieved a round of intelligent curriculum pilots, and the teaching effect was evaluated by questionnaires at the end of the semester. Taking the students of Grade 18, Class 1 as an example, 31 evaluation forms were distributed, with a distribution rate of 100% and a recovery rate of 100%;

In order to ensure that the measurement error in the questionnaire test is within a reasonable range, the following methods are used to measure the validity and reliability of the questionnaire. Validity refers to the accuracy of the questionnaire test, that is, the degree to which the test can reflect the characteristics to be measured. In measurement theory, validity is defined as:

$$r_{xy}^2 = \frac{S_v^2}{S_x^2} \tag{1}$$

r_{xy}^2 Indicates the validity coefficient of the measurement,S_v^2 stands for the effective variance,S_x^2 represents the total variance.

Reliability is a scale used to estimate the size of the measurement error to describe the proportion of measurement error in the questionnaire test results. To measure the reliability of the questionnaire, in theory, the following formula can be used to calculate

$$r_{xx} = \frac{S_T^2}{S_X^2} \quad \text{Or} \quad r_{xx} = 1 - \frac{S_E^2}{S_X^2} \tag{2}$$

S_T^2 represents the variance of the true score,S_X^2 Represents the variance of the actual score,S_E^2 represents the variance of the error.

Cronabach's αis the most commonly used reliability analysis method in social science research to evaluate the internal consistency of the questionnaire. The coefficient αtakes a value between 0 and 1. The higher the alpha coefficient, the higher the reliability and the better the internal consistency of the questionnaire. Its calculation formula is as follows:

$$\alpha = \frac{n}{n-1}\left(1 - \frac{\sum_{i=1}^{n} S_i^2}{S_X^2}\right) \tag{3}$$

Among them, n is the number of questions included in the questionnaire, S_i^2 is the variance of the respondents' scores on the i-th question, and S_X^2 is the variance of the respondents' total scores in the questionnaire. Through calculation, the Cronabach's alpha value in this questionnaire was 0.87, indicating that the reliability of the questionnaire was good.

The validity of this questionnaire is measured by the content validity ratio, which is between -1

and 1. The higher the ratio, the better the representativeness of the item. This questionnaire is demonstrated through expert correspondence. The content validity ratio of the questionnaire is between 0.81 and 0.95, indicating that the content validity is good, and each item is appropriate as an indicator of logistics English course teaching evaluation. Structural validity can understand the intrinsic properties of the questionnaire. Factor analysis has the function of simplifying data variables, representing the original data structure with fewer levels, and finding potential structural relationships between variables based on the relationship between variables. Through principal component factor analysis, the agreement between the data results and the theoretical structure can be evaluated. The KMO value is one of the test indicators for validity analysis. If the KMO value is greater than 0.7, it is suitable for factor analysis. The KMO value of this questionnaire is 0.804, which meets the requirements of factor analysis. Each factor loading matrix implements the maximum variance rotation, and the factor loading is between 0.478 and 0.811, all above 0.4, and the information extraction of each item is relatively sufficient. If the common factors obtained from the questionnaire can explain more than 50% of the variables, it means that the construct validity is good. The cumulative variance contribution rate of this questionnaire is 61.191%, indicating good structural validity.

4. Evaluation results

4.1. Analysis of evaluation results

(1) There are four specific evaluation criteria for the evaluation of the secondary indicator "teacher-student interaction":

1. "Teachers can appropriately question, pursue, summarize and provide feedback". 33 students thought that the teacher could do it, and all marked " √ ", and the praise rate was 100%;

2. "Teachers can inspire students to think deeply and from multiple perspectives". 33 students think that the teacher can do it, and all tick " √ ", and the praise rate is 100%;

3. "Classroom activities can stimulate students' interest". 33 students thought that the teacher could do it, and all marked " √ ", and the praise rate was 100%;

4. "Respect for different opinions". 33 classmates thought that the teacher could do it, all marked " √ ", and the praise rate was 100%.

(2) There are also four specific evaluation criteria for the evaluation of the secondary indicator "learning experience":

1. "Very willing to participate in classroom activities, cooperate and share with peers". 33 students thought that the teacher could do it, and all marked " √ ", and the praise rate was 100%;

2. "The class time is not long, and the class is active and interesting". 33 students thought that the teacher could do it, and all marked " √ ", and the praise rate was 100%;

3. "Appropriate homework arrangement can effectively consolidate knowledge content". 33 students thought that the teacher could do it, and all marked " √ ", and the praise rate was 100%;

4. "I learned more from this course than other courses". 33 classmates thought that the teacher could do it, all marked " √ ", and the praise rate was 100%.

4.2. Students' opinions and suggestions for teachers to improve teaching

20 evaluation forms were filled in this column. According to statistics, 20 of them were affirmative statements, and three of them wrote suggestions on the basis of affirmation. First, they hoped to consolidate the content of the class through more video. The second is to hope that the PPT will be larger in the future. The third is to hope that the teacher speaks a little slower.

Statistically, "very good", "satisfied", "interesting" and "vigor" are the words that appear most frequently.

Teachers personally feel that students' evaluation is too high, and there are still some contents that need to be improved and improved in this demonstration class.

5. Conclusion

The popularity of smart terminals a serious challenge to logistics English teaching, meanwhile teachers can also use smart terminals to create an "Internet +" logistics English classroom teaching model. The application of smart terminals makes logistics English learning more dynamic and interesting. This paper analyzes the application of smart terminals in the construction of intelligent courses, taking Xuexitong as an example, and further evaluates the teaching results through questionnaire and quantitative model. By demonstrating that smart terminals have a good auxiliary role in the construction of smart classrooms, the combination of smart terminals and logistics English teaching will definitely become a new trend in intelligent curriculum and teaching reform.

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