



# Research on Distance Education of French as A Foreign Language in Colleges Based on SPSS Data Analysis Software

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## Abstract:

Taking the course of French as a second foreign language in Wuhan Business University as an example, this paper elaborates on the distance education design of French as a second foreign language, including pre-class preparation, in-class design and after-class homework design. In addition, this paper explains the influence of online courses on teachers and students. This paper uses SPSS data analysis software to study the effect of distance education in French as a foreign language. The results show that distance education increases the information output of teachers and creates more vivid learning environment of language learning, greatly improving the teaching efficiency and quality.

**Keywords:** *Distance education, French, SPSS data analysis software*

## 1 INTRODUCTION

Distance education, also known as online education and network education, is an Internet teaching form that comprehensively uses Internet technology, information technology, communication technology and multimedia technology to develop a teaching platform, and conduct systematic teaching on the network teaching platform [6].

The research on online teaching in my country is relatively late, but the development speed is very fast. A large number of research results have been accumulated in both theoretical exploration and practical application. Through CNKI, input the keyword "online teaching" to search Chinese literature, and the search results reached 1257. From the perspective of year distribution, the most concentrated in the three years from 2018 to 2019, with more than 100 articles. At present, in the domestic college education In the construction of teaching informatization, Tsinghua University, Fudan University, Nankai University, Harbin Institute of Technology, etc. have done well.

Wuhan Business University actively responds to the call of the Ministry of Education and uses the existing network platform to provide online teaching for students. This article takes our school's second foreign French course as an example to explore the application of online

teaching of second foreign French courses and the value of distance education with the help of network platform.

## 2 ONLINE TEACHING DESIGN OF FRENCH AS A SECOND FOREIGN LANGUAGE

### 2.1 Preparation for online teaching of French as a second foreign language

The pre-class preparations for the online teaching of French as a second foreign language include: (1) The online teaching and training QQ group learning related teaching platform user guide established by the teacher in the school's Academic Affairs Office and the installation of the online teaching software (Chaoxing Learning Platform APP); (2) Set up a QQ group for second-level French courses, and inform students in the QQ group about the class platform - Superstar Learning Pass and QQ Group Classroom/QQ Screen Sharing. (3) Publish the teaching platform of the online course of the day in the QQ group before class. (4) Teachers record and complete the recorded video of the relevant courses before class, and upload them to Chaoxing Learning Platform.

## 2.2 *Design in the online teaching class of the second foreign language course*

French as a Second Foreign Language is a public elective course for senior English majors. This course is mainly to train students to master basic French language knowledge and have basic listening, speaking, reading, writing and translation skills. Through the study of this course, students can understand French culture, improve their cultural literacy, broaden their horizons, and expand their knowledge [4]. The textbook selected for the second foreign language course in our school is "Concise French Course" edited by Sun Hui and published by the Commercial Press.

### 2.2.1 *Pre-class homework*

Pre-class preparation is an important part of learning. In order to urge students to do pre-class previews so that students can better grasp the learning content of live courses, teachers will publish text-related preview assignments on Chaoxing Learning Pass before the text is taught. For example, before the live teaching of the 16th lesson text, the teacher will publish the pre-class preview assignments on Chaoxing Learning Platform, requiring students to complete the reading of the 16th lesson text and words before class, and submit the text and word reading on the Chaoxing Learning Platform.

### 2.2.2 *In-class instructional design*

The second language French course adopts a mixed teaching method of live broadcast and recorded broadcast. The teacher will record the course video in advance and upload the recorded course video to the Chaoxing Learning Platform. The video recording of the class is open according to the timetable. Students watch the recorded class videos online according to the timetable for online learning, and complete their homework within the specified time. Online live teaching mainly adopts the method of QQ group screen sharing and voice call. In the following, the author will use the "QQ group screen sharing + voice call" live teaching mode to explain the live teaching design of the second language French course.

#### 2.2.2.1 *Warm-up review session*

Since online teaching is different from the traditional face-to-face teaching mode in classrooms, in order to activate the classroom atmosphere, teachers will invite students to interact in French to warm up at the beginning of each course. The teacher uses the superstar learning to shake and select people, randomly select three groups of students, each group includes two students, and ask the students to greet each other in French. In this way, everyone can enter the live classroom learning state more quickly.

Next is the question and answer session. The teacher answered some prominent and common questions that appeared in the last assignment. Then there is the question and answer session. Teachers will verbally ask and answer what they have learned in the previous lesson. The question-and-answer session can not only efficiently review and review the teaching content of the previous lecture, but also exercise students' French oral expression and reaction ability.

#### 2.2.2.2 *New course lectures*

After the question-and-answer session, the teaching session of the new content begins. In addition to the teaching content of the textbook, the teaching content of French daily situational communication is also added, such as daily situational communication on topics such as "finding someone", "asking for directions" and "traffic".

#### 2.2.2.3 *Student self-learning session*

Teachers regularly publish learning links on the Chaoxing Learning Platform, including daily French sentences and popular topics for students to learn independently. After the live class, teachers set aside corresponding time for students to study independently. After the students complete the self-learning task, the teacher will publish a rush-answer activity related to self-learning on the Chaoxing Learning Platform. The rush-answer activity sets learning point rewards. To a certain extent, online rush-answer activities can stimulate students' interest and enthusiasm in learning, and increase students' sense of participation in online learning. In addition, teachers prepare a variety of teaching materials in combination with teaching content [2]. For example, Lesson 16 of the teaching material mentions the topic of vacations. Teachers created micro-lectures about French festivals and holidays around the topic of holidays for students to watch and learn independently. In addition, teachers released a French festival theme discussion activity on the Chaoxing Learning Platform-"French Festivals You Know" for students to participate in the discussion online. By setting up topic discussion activities, students can be guided to learn to use the Internet to search and summarize data.

### 2.2.3 *Homework design*

After-school homework design In addition to the after-school exercises provided with the textbooks, the teacher also arranged the reading assignments of the texts and words, and asked the students to upload the reading audio on the Chaoxing Learning Platform within the specified time. In addition, a group task was designed, requiring students to work in pairs to complete the French daily situational dialogue exercises, and upload the dialogue audio and the written dialogue text to the

Chaoxing Learning Platform. For example, in one group task the topic was asking for directions, everyday situational communicative dialogue. Students not only uploaded audio and dialogue text, but also uploaded their own hand-drawn maps. Through group assignments, not only students' French oral language expression and writing skills are exercised, but also their problem-solving and collaboration skills are exercised. In order to exercise students' language application ability and stimulate students' interest in learning and subjective initiative, through the organization of French dubbing competitions, students are guided to use software such as dubbing shows to dub short videos in French.

### **2.3 Evaluation method of students' performance in online courses in French as a second language**

Teaching evaluation is an important part of the teaching process. Construct multiple evaluation methods based on formative evaluation and strengthen process control. The student's achievement evaluation has changed from summative evaluation to formative evaluation. The online learning score of students in the second foreign French course consists of 40% of the usual grade + 60% of the final grade. Students' usual grades include online learning (10%) + online classroom performance (10%) + online homework completion (10%) + online group task completion (10%). Diversified formative assessment methods can guide students to pay more attention to their usual learning, rather than blindly relying on cramming before exams.

### **2.4 Main problems and solutions in the online teaching process**

#### **2.4.1 Network failure**

Many teaching platforms are prone to various problems such as lag, delay, and inability to connect. Students also often report that online learning cannot be taught live due to network reasons [1]. In view of this situation, teachers have prepared with both hands. The first is to record the recording and broadcasting of the course in advance. After the live class, upload the recording and broadcasting course and related PPT to the Chaoxing Learning Platform. The second is to use screen recording software to record the whole process of live teaching. After the live class is over, send the recorded live class video to the students' QQ group. Students who do not participate in the live class due to network failures can learn and review by watching the video of the recorded class or the recorded video of the live class.

#### **2.4.2 Student absences**

During the online teaching, it was found that some students did not attend the class online. If you don't

attend classes online, it will cause difficulties in later learning. Therefore, in the online classroom, a high frequency of random selection is adopted to answer questions. In this way, students' participation in online classrooms can be effectively improved, and the effect of classroom teaching can be improved.

## **3 THE INFLUENCE OF THE ONLINE COURSE OF FRENCH AS A FOREIGN LANGUAGE ON TEACHERS AND STUDENTS**

### **3.1 The impact of online courses in French as a foreign language on teachers**

#### **3.1.1 The changing role of teachers**

In the information age, teachers are no longer the only source for students to acquire knowledge, nor are they instillers of knowledge. The teaching philosophy should be changed from teacher-centered to student-centered. Teachers should be the organizers, facilitators and guides of students' learning and development. Teachers should organize various and colorful classroom activities and second classroom activities from the perspective of students. Teachers should change from a pure knowledge professor to a guide for students to learn, and guide students to actively explore knowledge.

#### **3.1.2 New Requirements for Teaching Skills**

Compared with traditional teaching, online teaching puts forward new and higher requirements for teachers [3]. Online teaching requires teachers to be proficient in the application of computer and computer network-related technologies, including the use of various functions on the Chaoxing Learning Platform, the use of screen recording software, the use of QQ screen sharing, and the use of after-school homework, group activities and other online activities. Design and evaluation methods.

### **3.2 The impact of online courses in French as a foreign language on teachers**

If students want to succeed in the learning of French as a second language online course, they must first be able to use computers and computer network technology proficiently, and be familiar with the relevant methods of using online platforms, such as the proficient use of online teaching platforms such as Chaoxing Learning Platform. Secondly, they must have strong enthusiasm for learning and the ability to learn independently. They must be self-disciplined and be able to manage time reasonably and efficiently. In addition, it is necessary to have the ability to cooperate with classmates online in order to successfully complete the group assignments

assigned by the teacher. Finally, online learning is not the passive absorption of knowledge, but guides students to actively acquire, explore and absorb knowledge in the network information environment.

## 4 RESEARCH ON TEACHING EFFECT OF DISTANCE EDUCATION MODEL BASED ON SPSS

### 4.1 Research objects and statistical methods

In order to test the online college second foreign language teaching mode to improve students' academic performance, the research group took the 2018 Second Foreign Language Class A and Second Foreign Language Class B as the research objects, and launched a period based on the "Second Foreign Language" course. One semester of empirical research. Two natural classes are experimental classes, one class is taught in an online teaching mode with the help of the online teaching platform, and the other class is a control class, which is taught by traditional teaching methods. The same teaching content, different teaching modes, students' final exam results are quite different.

First, teachers conduct descriptive statistics on the grades of the two classes, including maximum, minimum, mean and standard deviation; secondly, teachers conduct normality test and variance analysis. In this paper, the independent sample t-test was used to analyze whether the scores of the two classes were different. All the above analyses were performed using SPSS software.

### 4.2 Analysis results and suggestions

#### 4.2.1 Statistical description

In SPSS, select Analysis-Descriptive Statistics-Description, click the menu, enter the setting page, select the maximum value, minimum value, average value and standard deviation in "Options" and click Continue. After confirmation, the descriptive statistics results displayed are shown in Table 1 and 2.

Table 1: Descriptive Statistical Analysis of the Grades of Two Classes (1)

| Class | Number | Maximum | Minimum | Average |
|-------|--------|---------|---------|---------|
| A     | 24     | 87.5    | 62.5    | 78      |
| B     | 25     | 97      | 66.5    | 83.4    |

Table 2: Descriptive Statistical Analysis of the Grades of Two Classes (2)

| Class | Number | Standard deviation |
|-------|--------|--------------------|
| A     | 24     | 6.960              |
| B     | 25     | 8.206              |

It can be seen from the results that the highest score in class A is 87.5, the lowest score is 62.5, and the average 62.564.12; in class B, the highest score is 97, the lowest score is 66.5, and the average is 83.4 points. Comparatively speaking, the average score of class B is 5.4 points higher than that of class A, the standard deviation of class A is smaller than that of class B, it can be seen that the students of class A have more average scores, and the scores of class B are relatively unstable.

#### 4.2.2 Difference analysis

It can be seen from the above table that the variance analysis (the full name is one-way table variance analysis) is used to study the difference of the class for a total of 1 grade. It can be seen from the above table that the samples from different classes all show significant ( $p < 0.05$ ), which means that samples from different classes have differences in grades. The specific analysis shows that the class has a 0.05 level of significance for the grades ( $F = 6.238$ ,  $p = 0.016$ ), and the specific comparison difference shows that the average value of class A (78.00) will be significantly lower than the average value of class B (83.44).

Table 3: ANOVA results

| ANOVA results         |                       |                   |       |       |
|-----------------------|-----------------------|-------------------|-------|-------|
|                       | Class (mean $\pm$ SD) |                   | F     | p     |
|                       | Class A<br>(n=24)     | Class B<br>(n=25) |       |       |
| Score                 | 78.00 $\pm$ 6.96      | 83.44 $\pm$ 8.21  | 6.238 | 0.016 |
| $p < 0.05$ $p < 0.01$ |                       |                   |       |       |

Table 4: Effect Size Metrics

| Effect Size Metrics |        |         |                  |           |
|---------------------|--------|---------|------------------|-----------|
| Analysis item       | SSB    | SST     | Partial $\eta^2$ | Cohen's f |
| Score               | 362.37 | 3092.53 | 0.117            | 0.364     |

If the analysis of variance shows a significant difference ( $p < 0.05$ ), the specific difference can be compared by the mean value, and the effect size can be used to study the magnitude of the difference; First: The

partial Eta square is used to represent the effect size (the magnitude of the difference) in the analysis of variance. The larger the value, the greater the difference; Second: when the partial Eta square is used to represent the effect size in the analysis of variance, the critical points for distinguishing small, medium and large effect sizes are: 0.01, 0.06 and 0.14 respectively; Third: The formula for calculating the partial Eta square value is  $SSB/SST$ ; Fourth: Analysis of variance can also use Cohen's  $f$  to represent the effect size, and its calculation formula is  $\sqrt{\text{partial Eta square} / (1 - \text{partial Eta square})}$ , when Cohen's  $f$  represents the effect size, the effect size is small, medium, and large. The critical points are: 0.10, 0.25 and 0.40.

## 5 CONCLUSIONS

Promoting the online live teaching of French as a second language class requires the full support of the school, the careful design of the teachers of the second language class, the strong assistance of the counselors, the wholehearted investment of the students and the strong cooperation of the parents. It is believed that with the joint efforts of all parties, the online live teaching of French as a foreign language as a foreign language can achieve a smooth transition in the teaching of French as a foreign language as a foreign language under the epidemic, reform the existing traditional classroom teaching model, and inject new vitality into the teaching of French as a foreign language as a foreign language in colleges and universities [5].

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