

# **Analysis of Obstacles in International Business English Translation under the Guidance of Cultural Environment Differences and Countermeasures**

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**Abstract:** Due to the development of economic globalization and the rapid improvement of China's economic strength, the importance of business English is self-evident. In the context of cultural and cultural differences, the barriers to translation of international business English have gradually emerged. This paper mainly studies how to improve the translation effect of international business English through cultural environment difference orientation and machine learning algorithms, so as to improve college students' English comprehensive ability.

## **1. Introduction**

Since the beginning of the 21st century, the rapid development of various information technologies has triggered the transformation of English teaching methods and students' learning models in English [1]. Diversified teaching modes, English classroom flipping, diversified knowledge systems, English micro-classrooms and various English learning mobile terminals have provided a basis for strengthening practical English teaching. Business English translation learning has become an English teaching in the information age of China. Important features [2]. Although the existing business English teaching mode is relatively mature, the practical effect is not good. The characteristic English teaching mode based on machine learning can improve the efficiency of international business English translation [3].

## **2. Methodology**

### **2.1. Application and basic principles of machine learning algorithms in business English translation**

Learning in our common algorithms refers to the enhancement or improvement of the system's own capabilities in repeated work, so that the next time the system performs the same task or similar tasks (referring to tasks with the same distribution), it is better than now. Better or more efficient, this process is called systematic self-training or self-learning. Machine learning is a method of knowledge discovery. As shown in Figure 1, it refers to a system that improves its ability to deal with a problem by performing a process [4]. In the concrete realization process of this paper, the business English translation strategy is applied according to the individual differences, individual interest in English learning, professional English needs and differences in English learning ability of different genders [5]. Machine learning algorithms to achieve flip teaching for different student groups. Secondly, we will classify the practical aspects of content in business English translation through machine learning algorithms, so as to highlight practical teaching, realize students in accordance with their aptitude, and improve students' ability in international business English translation [6].

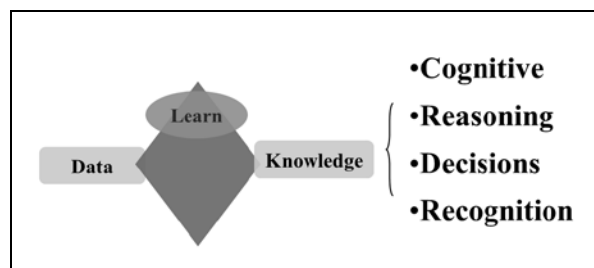


Fig.1. The basic idea of machine learning

## 2.2. Implementation steps of machine learning algorithm in business English translation teaching mode

The machine learning algorithm in this study needs to meet the following three factors to complete the intelligent process: they are: consistency assumption (conditions of machine learning algorithm), sample space division (determining the validity of the model to the sample set), and the ability to determine the validity of the model to the world is shown in Figure 2. In the international business English translation strategy based on the cultural environment difference, we will classify the translated content according to the practicability through the machine learning algorithm, then analyze the student's learning data information, and feed back the analysis results [7]. Teachers, thus reducing the barriers to translation of international business English, and truly enhance the comprehensive ability and translation ability of college students.

In order to satisfy the consistency hypothesis, that is, the condition of the machine learning algorithm, we consider that the research focuses differently in different periods, so we divide the students into different vector matrices according to different professions. These matrices are composed of different vectors. Group composition.

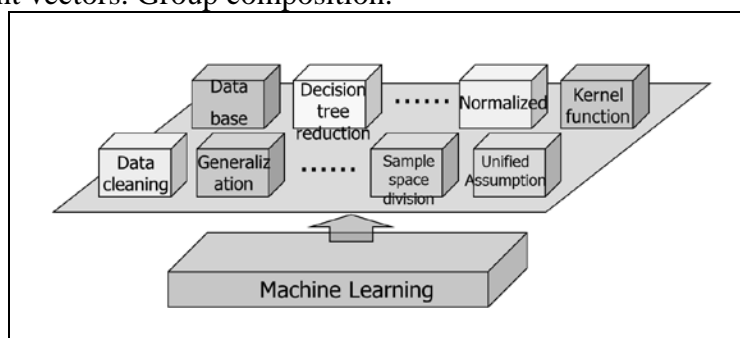


Fig.2. Necessary requirements for the operation of machine learning algorithms

In the first step, the machine learning algorithm used in this study, in the process of processing these similar information, will be grouped according to the practicality of the teaching content and the professional differences of business English.

The basic implementation process of the machine learning algorithm is as follows: firstly, data processing, that is, different English teaching content is processed by data processing, and then divided into multiple clusters by random process processing, and according to the principle of highest similarity (practicality and professional difference) The plurality of student objects are divided into each cluster, and comparative analysis processing is performed. When each student object belongs to a collection corresponding to the center of the node closest to it, the iterative processing is ended.

Second, data integration, the purpose of data integration is to combine multiple data sources. The biggest advantage of the business English translation teaching mode is that it can realize the accurate classification of different contents, and can be classified according to the practicality of the current English and the teaching requirements of different majors, so that the center of each vector group can be gradually obtained. Vector (reference vector), and use this as a standard vector to achieve efficient English translation teaching for different student groups, improve the translation efficiency of business English, and truly enhance the translation ability of college students in

international business English.

Finally, decision tree reduction processing is performed. Decision tree reduction constructs a structure similar to a flowchart: each non-leaf node represents a test on an attribute, each branch corresponds to an output of the test; each leaf node represents a decision class. The business English translation teaching mode realizes the discrimination by comparing the vector feature values represented by each student in the process of identifying the student groups for different majors. This greatly improves the efficiency of filtering and vector grouping.

In terms of data conversion, we need to normalize and fuzzify. In the normalization of finite intervals, we deal with it by the following formula:

$$v' = \frac{v - \min}{\max - \min} \quad (1)$$

The normalization formula for an infinite interval is:

$$v' = \frac{1}{1 + e^{-v}} \quad (2)$$

Where  $V$  is the result of the operation of the machine learning algorithm in the last self-learning process, and  $V'$  is the result of the normalization process.

### 3. Result Analysis and Discussion

Through consulting relevant literature, the author finds that the current barriers to international business English translation are mainly due to the differences in cultural environment, that is, translators in different cultural environments have different levels of understanding of the same content. English translation teaching is mainly based on business English and general English, which leads students not only to be interested in traditional English teaching, but also to improve their practicality [8]. On the other hand, in the translation of business English, most people still pay attention to teaching basic skills such as “listening, speaking, reading and writing”, diluting the differences in cultural environment, lacking awareness and attention to business English translation teaching. [9]. In addition, the author learned through the query data: Most college English teaching models do not involve the teaching model aimed at strengthening the practicality of English and cultivating students' comprehensive ability. Therefore, it is difficult to achieve a very effective improvement [10]. Therefore, from the perspective of English teaching mode, according to the students' English learning characteristics, learning interest and the practicability of English courses, an efficient and interesting English teaching system is constructed through the intelligent business-based “Business English Translation” teaching mode. Realizing the students' characteristic teaching and improving students' comprehensive ability has become an important research direction in the teaching process of higher education institutions in China.

#### 3.1. Construction of business English translation model based on machine learning algorithm

In order to better reduce the obstacles in international business English translation and improve the English comprehensive ability of college students, we designed a “business English translation” teaching mode based on machine learning algorithm, which is to improve students' comprehensive translation ability. The main training objectives are the new teaching mode of directed English training and specific English teaching. The basic implementation process is shown in Figure 3. The purpose of this model is to create an innovative classroom where students interact effectively with teachers to achieve true teaching in accordance with their aptitude.

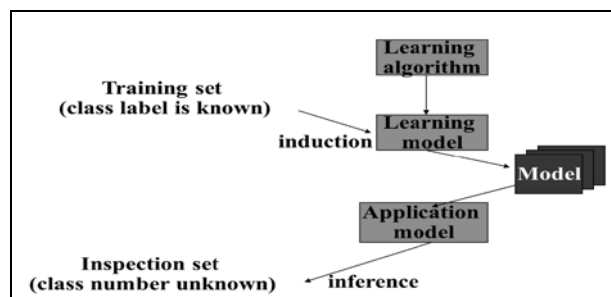


Fig.3. The basic realization principle of flipping classroom based on machine learning algorithm

In this study, in the teaching process, the general method of business English is first analyzed, and then the feature information is extracted. Secondly, through the English learning information, English classroom assignments, English soundtrack listening, English writing performance methods and other information, the student's learning behavior in business English translation is analyzed. Therefore, each student is scientifically trained in specific English teaching, and each student's comprehensive ability is rapidly improved.

### 3.2. English translation teaching effect under the guidance of cultural environment difference

In order to better reflect the practical application of this research, we conducted a practical test for students in a certain university. In this study, two groups of business English students with different translation levels were selected as experimental subjects, which were oriented towards cultural environment differences. One of the students started with an English final exam score of 61 and the other had an English final exam score of 88. By teaching practical English translation teaching in the past year, I found that the two students have greatly improved their practical aspects and comprehensive ability in English. One from the English final exam score of 61 points to 78 points. Another student was upgraded from an English final exam of 88 to an English final exam with a score of 94. By observing the results of the practical English teaching training of the two groups of students, we can know that this business English translation English teaching mode can effectively strengthen the practical English teaching and improve the English comprehensive ability of college students.

In the process of judging the effect of business English translation teaching in this study, the English final exam score is 65 as the standard reference value. According to the test results, the average English level of the first group of students is lower (0.61). The average level of English in the second group of students is very high (0.87). This shows that this business English translation model can be applied to groups of college students of different English levels. And through the differentiated results, different business English translation English teaching and training, to achieve high-precision teaching in accordance with their aptitude, and further enhance students' translation skills in business English.

## 4. Conclusion

In order to better improve the effect of international business English translation, strengthen practical English teaching and improve the comprehensive ability of college students. This paper proposes a business English translation model based on cultural environment differences, which is based on machine learning algorithms. Then, through the comparison of two students with great gaps in English, and the test The teaching effect of the international business English translation teaching mode. The experimental results show that the English teaching mode can effectively improve the students' comprehensive ability. Therefore, this model can be applied to the international business English teaching of the current colleges and universities.

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