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An Interpretation of Cross-cultural English Translation Teaching Strategies under Clustering Algorithm

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Abstract

Intercultural English translation ability is an essential requirement for college students, and this paper uses a clustering algorithm to study the current status of teaching intercultural English translation. This paper first proposes the basic process and application scenarios of clustering algorithm, and explains the rationality of using clustering algorithm in the analysis of this paper. Then the improved elbow method is used to automatically determine the number of clusters to accurately obtain the number of classifications of user data, and the data with small lof values are screened as the candidate set of initial clustering centroids, and the outlier lof algorithm is used to weight the distance between data in data set F to iteratively optimize the clustering centroids. Finally, the analysis was conducted to explore the problems in terms of students' learning motivation, translation influence factors and teaching evaluation. In terms of teaching effectiveness, 90% believe that the current English translation teaching is mainly exam-oriented and plays little role in professional competence development. In terms of teaching strategy improvement, 90% of them think that English practice teaching should be strengthened, with more translation activities, projects, and translation classes. This is 1%, 2%, 10%, and 1% more than innovative teaching methods, strengthening cultural penetration, adopting diverse translation techniques, assessing learning effects in a reasonable and timely manner, and result-oriented teaching strategies, respectively. The English translation teaching classroom should be student-oriented and innovative teaching strategies should be used to optimize learning outcomes.

Keywords: *clustering algorithm; outlier algorithm; cross-cultural communication; English translation; teaching strategy*

Introduction

As a practical English skill, cross-cultural translation has become a key course in the current university English learning (Li Y 2018). Currently, university English translation teaching has received higher attention, but because of the influence of the traditional teaching mode, the teaching consciousness of many teaching staff has not changed, translation teaching does not give full play to students' subjective initiative, and students' translation literacy has not really been improved (Z. L, 2018; Yan, 2020). Therefore, in response to this situation teachers need to make improvements to the actual teaching, improve the quality of English translation teaching, and meet the development needs of students' comprehensive English application ability (Tao &

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Zhigao, 2022; U, 2017).

The literature (W. Y, 2015) pointed out the importance of translation teaching and the necessity of translation teaching reform, and also discussed the causes of the deficiencies of students' translation ability in teaching. The literature (Yuan, 2022) put forward the suggestion that translation teaching should update the concept and innovate the teaching mode. The literature (Samardali & Ismael, 2017) analyzed that teachers in translation teaching should combine with students' characteristics and pay attention not only to students' translation results but also to translation teaching methods. The literature (J. Y, 2020) stated in detail the systematic model of intercultural communication competence cultivation in terms of lecture mode, assessment system, curriculum system, feedback evaluation and teaching monitoring.

The literature (NISHIMOTO, 1985) proposed the main components of intercultural competence, such as critical cultural awareness, independent thinking ability, and communicative competence from different backgrounds, etc., and proposed five teaching principles of intercultural teaching and six components of the intercultural competence model, under which teachers, guided by the teaching principles, are more able to carry out process reflective teaching based on the six components of the intercultural competence model, follow the principles of intercultural teaching, and can always The teachers, guided by this pedagogical principle, are more able to conduct a reflective teaching process based on the six elements of the intercultural competence model, follow the principles of intercultural teaching, and can readily adjust and improve their teaching strategies based on feedback. The literature (Chen M L 2018) suggests that the four processes of knowledge assimilation, language expression, cultural memory, and communication transmission should be used as a pavement to simulate the real situation of language communication, and learners should be able to cultivate intercultural awareness and improve communication skills in this simulated language environment, along with the improvement of intercultural communication competence. According to the literature (Liu, 2020), the improvement of practical language skills is the key purpose of foreign language teaching, and the improvement of intercultural communication skills is the ultimate direction of foreign language teaching.

The literature (Li, 2020) argues that foreign language teaching is ultimately about achieving the development of intercultural communicative competence, rather than caring only about the mastery of traditional language knowledge skills. The literature (Rao, 2021) argues that the current English curriculum focuses too much on the mechanical mastery of knowledge skills and neglects the development of intercultural communication skills. By exploring the connection between English teaching and national culture, and based on the specificity and ethnicity of Chinese culture, suggestions are made in terms of teaching objectives, teaching methods, teaching media and teaching feedback. The literature (L. Y, 2017) suggests that for listening, speaking, reading and writing practice as well as explanation, English teachers never relax, while teachers' explanation of translation content and practice of having students do translation practice are even more limited, neglecting the teaching of translation skills to students. The literature (Flores, 2019) suggests that translation teaching should aim at improving students' translation literacy and translation level. The literature (Liang & Li, 2018) argues that teachers use case teaching in the course of lectures to help students understand the theory, and that the teaching of theory to students should focus on the degree of grasp, with the emphasis on allowing students to use translation theory in practical work.

In the literature (Ge, 2021), it is believed that "translation workshops" in English translation teaching provide students with a real translation environment and motivate them to learn. According to the literature (L. L, 2017), "in today's society, the Internet is well developed and new tools and technologies must be used in teaching to provide students with rich learning resources and to show translated texts of different genres.

The literature (Gao Y 2019) believes that the case teaching method is very suitable for English translation teaching, in which the teacher is the leader and the students are the main body, and the specific language environment is set up to improve the students' practical level, and it is emphasized that the teaching should be based on exercises, and the cases are implicitly permeated in the teaching.

This paper first proposes a clustering analysis method to measure the similarity between data and divide the data with high similarity into the same cluster, so that the data in the same cluster have high correlation and thus can understand the characteristics of each class of data more deeply. Then its application scenario is introduced, using the clustering algorithm to explore and mine the feedback effect data of cross-cultural English translation courses, and cluster analysis of variables to find out the correlation between them. Then the improved clustering algorithm and steps are introduced.

The outliers are excluded according to the outlier factor of each data point in the data set to reduce the influence of the original k-means algorithm in selecting the initial clustering centroids by outliers, the information entropy weighted Euclidean distance is used as the similarity measure of clustering, and the improved elbow method is used to automatically determine the number of clusters to accurately obtain the number of classifications of the data. And the outlier lof algorithm is used to optimize the clustering centroids by iteratively weighting the distance between data in dataset F. Finally, the problems and countermeasures are analyzed in terms of students' learning objectives, translation influence factors, improvement measures, teaching methods and content satisfaction.

Clustering algorithm model

Cluster Analysis

Cluster analysis is an unsupervised learning method that measures the similarity between data and

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classifies data with high similarity into the same cluster, so that the data in the same cluster have high correlation and the data between different clusters have poor correlation, thus enabling a deeper understanding of the characteristics of each class of data.

First of all, we will introduce the cluster analysis in detail. Cluster analysis refers to the classification of unlabeled data objects by a certain similarity measure, so that data with high similarity are classified into the same class and data with low similarity are classified into different classes.

Thus, the potential features hidden in the data center can be uncovered and more useful information can be obtained.

Definition of cluster analysis: Given a data set x containing m data objects, each data object $x_i(i=1,2,3\cdots\cdots m)$ has n characteristic attributes, i.e. $x_i=\{x_{i1},x_{i2},x_{i3}\cdots\cdots x_{in}\}$. Cluster analysis means dividing the whole data set x into k clusters $(C_1,C_2,C_3,\cdots\cdots \mathrm{C}_k)$ according to some similarity between data objects x_i , . and the following conditions are satisfied:

$$\begin{cases} X = C_1 \cup C_2 \cdots\cdots C_k \\ C_i \cap C_j = \varnothing (\mathrm{j} \neq i) \end{cases} \quad (1)$$

The above definition of cluster analysis is only one definition method that is generally agreed. For the fuzzy clustering method, a data object is divided according to its affiliation, and the same data object may be divided into different clusters that do not satisfy the above conditions.

Cluster analysis mainly consists of the following processes:

(1) Data pre-processing, i.e., selecting representative feature values, reducing data redundancy, and representing data objects with appropriate data types.

(2) Measuring the similarity between data, i.e., calculating the similarity between data objects using a certain - a similarity measure. The similarity measure can either be done all before clustering or can be calculated during clustering as required.

(3) Clustering or grouping of data objects, i.e., using the similarity between data by a certain division method, the data with high similarity are divided into the same - clusters and the data with low similarity are divided into different clusters.

(4) Display of clustering results, i.e., the results obtained from clustering are shown graphically or the feature information of each cluster of data is directly output.

Figure 1 shows the classification diagram of clustering algorithm.

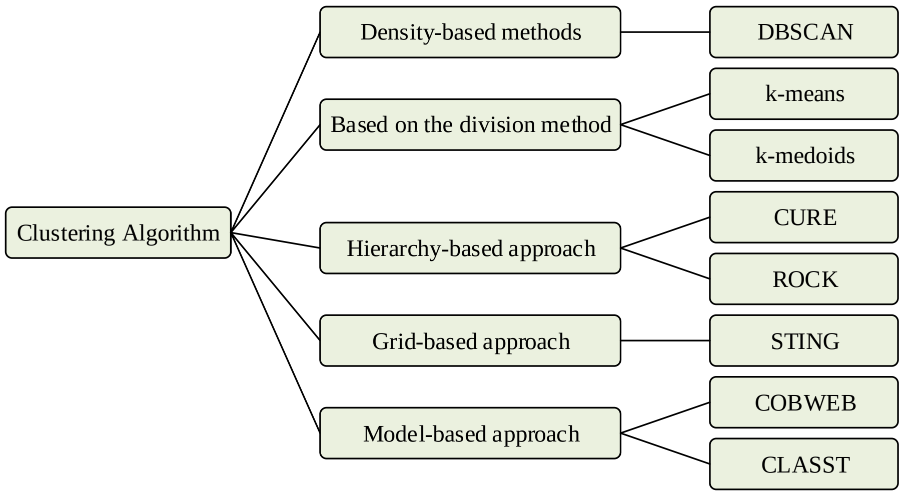

Figure 1 Classification diagram of the clustering algorithm

Scenarios for the use of clustering algorithms

Core Metrics for Cluster Analysis

In the practical application of clustering analysis, a large number of parameters lead to slow clustering, complicated calculation and poor clustering effect. However, in the context of practical business, more metrics should be considered in a comprehensive manner in order to uncover the potential information more comprehensively. This makes a big contradiction between the speed and comprehensiveness of clustering. Therefore, it has been found in practice that in addition to insisting on few and precise parameter indicators, the results obtained from clustering analysis and non-clustering indicator parameters need to be refined, mined and analyzed again. In short, first classify the users by the features that can reflect their real behaviors, and when the clustering results reach the expected analysis, the gender, age, occupation and place of birth of the users in the obtained user group can be analyzed. If more obvious characteristic information is found in the user group, additional business tips should be provided for further clustering analysis. However, whether to use this method in the actual clustering analysis depends on the actual business needs and situation, and the method has been fully affirmed in many practices.

Data Exploration and Cleaning

Cluster analysis techniques as an exploration and cleaning tool can play an auxiliary role in the analysis of other data models. Cluster analysis techniques as an auxiliary tool for data model analysis are mainly reflected in the following aspects.

(1) Cluster analysis is essentially a process of mapping and exploring data, and other data

modeling techniques need to be used for the establishment of cluster analysis. Because after this analysis can have a general understanding and knowledge of the data, for data modeling play a role.

(2) The analysis of variables by clustering technique is the most effective and simplest method in adhering to the principle of fewer and more precise characteristic variables. When there are more data feature variables, the correlation between variables can be found by cluster analysis of variables. In the same cluster, variables have high correlation with each other. In different clusters, the correlation between variables. The correlation is poor. This analysis can provide a reliable basis for selecting the characteristic variables, resulting in a reduced amount of input data and an improved timeliness of data modeling.

(3) In addition to the above applications, clustering analysis techniques are essential in checking data covariance. In the results obtained from cluster analysis of variables, variables in the same cluster have high correlation, and if the data in this cluster is used in data modeling analysis, it can quickly and accurately make the covariance between variables and thus remove them to avoid covariance problems.

Personalized recommendations

In the era of e-commerce, personalized recommendation is a common promotional tool used by companies, and cluster analysis is an important tool to achieve it. In many Internet companies, there are already special research teams. Teams have developed products and services to meet the different needs of users and to maximize the benefits of the company.

Personalized recommendation means that when a user enters an e-commerce platform to browse, the platform can use the user's browsing history and historical transaction information to infer the products that the user is more interested in, and present the relevant products in a timely manner so that the user can find them quickly.

The core of personalized recommendation lies in how to match products with users accurately, and the clustering analysis technology can better solve this problem. The principle of implementation is to cluster the historical browsing and transaction users of different products through the electronic platform, then use the clustering results to analyze the behavior of users in different clusters, and finally match the users with the products corresponding to the user groups to realize the personalized recommendation of the company.

Of course, during the execution of specific projects, data processing is not easy, and the initial rule customization and queue setting are also essential. However, the clustering analysis technology breaks through the classical application area and has a preliminary exploration in the emerging business model, reflecting the vitality of clustering technology to keep pace with the times.

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Improved clustering algorithm

1K-means algorithm

The k-means clustering algorithm is described as follows:

Step 1 k sample points are randomly selected from all sample datasets D and recorded as the initial clustering centroids.

Step 2 At the j iteration, the distance from each remaining sample object in D, $(t=1,2,\cdots,n)$ to each initial clustering center $\{i=1,2,\cdots,k\}$ is calculated using Equation (2).

$$d\left(X_t, C_i\right)=\sqrt{\left(X_t-C_i^{(j)}\right)^2} \quad (2)$$

Step 3 Find out the nearest distance to the class that will be assigned to.

Step 4 Update the clustering center:

$$C_i^{(j+1)}=\frac{1}{n_i}\sum_{t=1}^{n_i} X_{it} \qquad i=1,2\cdots k \quad (3)$$

Step 5 Iterate steps 2 - 3 until the cluster centers are equal to or less than a specified threshold than the original cluster centers, and the algorithm ends.

Outlier detection methods

In response to the vulnerability of the original k-means algorithm to outliers in selecting the initial clustering centroids, a method is proposed to exclude outliers based on the outlier factor of each data point in the dataset. The basic concepts of the outlier detection algorithm are introduced below.

(1) Definition 1:$\boldsymbol{k}$ distance

There exists a positive integer $\boldsymbol{k}$ and a data point $\boldsymbol{P}$, and the $\boldsymbol{k}$ th distance from point $\boldsymbol{P}$ is denoted as $dis_k(p)$. There exists a data object o, and the distance between object $\boldsymbol{P}$ and object o is denoted $dis(p,o)$. $disk(p)$ is equal to $dis(p,o)$ if the following two conditions are met.

A There exist at least $\boldsymbol{k}$ data objects z such that $dis(p,z)_{,,} dis(p,o)$.

B there exist at most $k-1$ objects z such that $dis(p,z)<dis(p,o)$.

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(2) Definition 2: $\boldsymbol{k}$ distance field

Define all data objects within the $\boldsymbol{k}$ distance of data object $\boldsymbol{P}$ as the $\boldsymbol{k}$ distance field of $\boldsymbol{P}$, denoted as $N_k(p)$.

There exist data point $\boldsymbol{P}$ s p and $\boldsymbol{q}$, and the $\boldsymbol{k}$ reachable distance of point $\boldsymbol{P}$ with respect to q can be defined as :

$$dis_r(p,q) = \max\{dis_k(q), dis(p,q)\} \quad (4)$$

Definition 2 shows that if data object $\boldsymbol{P}$ is the $\boldsymbol{k}$ distance domain of q, i.e., $p \in N_k(q)$, then the reachable distance of $\boldsymbol{P}$ with respect to q is. Conversely, it is the distance $dis(p,q)$ from point $\boldsymbol{P}$ to $\mathbf{q}$.

(3) Definition 3: Local reachable density

In the presence of data point $\boldsymbol{P}$, the local reachable density of point $\boldsymbol{P}$ is calculated as in Eq:

$$lrd(p) = 1 \Bigg/ \frac{\sum_{q \in N_k(p)} dis_r(p,q)}{|N_k(p)|} \quad (5)$$

Denotes the inverse of the mean of the reachable distances in domain $\boldsymbol{k}$ of point $\boldsymbol{P}$.

(4) Definition 4: Local outlier

The local outlier factors for data point $\boldsymbol{P}$ are as follows.

$$lof(p) = \sum_{q \in N_k(p)} \frac{lrd(q)}{lrd(p)} \Bigg/ |N_k(p)| \quad (6)$$

Is expressed as the mean of the ratio of the local reachable density of point $N_k(p)$ in the domain of point $\boldsymbol{P}$ to the local reachable density of point $\boldsymbol{P}$.

If the value of $lof(p)$ is close to 1, it means that p is similar to the density of its domain points and p is very unlikely to be an outlier. The more the value of $lof(p)$ is less than 1, it means that the density of $\boldsymbol{P}$ is higher than the density of its domain points, i.e. $\boldsymbol{P}$ is dense.

On the contrary, the more $lof(p)$ is greater than 1, the more likely $\boldsymbol{P}$ is an anomaly.

Similarity Metric

The information entropy weighted Euclidean distance is used as the similarity measure basis for clustering. Information entropy reflects the size of data information, and the larger the information, the larger the weight. Conversely, the smaller the weight value is. The method of calculating information entropy is shown in Equation (7).

$$E_j = -\sum_{i=1}^{m} X_{ij} \ln X_{ij} \Big/ \ln m \tag{7}$$

m :number of records in the dataset, n :dataset dimension.

From the information entropy, the weight of each dimensional attribute in the dataset is obtained and the similarity measure formula (8) is obtained by equation (7).

$$W_j = \left(1-E_j\right) \Big/ \sum_{j=1}^{n}\left(1-E_j\right) \tag{8}$$

$$dis\left(X_p, X_q\right) = \sqrt{\sum_{j=1}^{n} W_j \left(X_{pj} - X_{qj}\right)^2} \tag{9}$$

Automatic determination of the number of clusters

To accurately obtain the number of classifications of user data, the number of clusters is automatically determined using an improved elbow method. The core metric is the sum of squared errors (SSE), as shown in Equation (10). When the number of clusters $\boldsymbol{k}$ value is $\boldsymbol{k}$ smaller than its true number of classifications, the value of SSE decreases sharply as the value of increases. When the value of $\boldsymbol{k}$ reaches the true number of classifications, and the value of $\boldsymbol{k}$ is increased, the decline of SSE decreases sharply and flattens out.

$$\mathrm{SSE} = \sum_{i=1}^{k} \sum_{p \in c_i} \left| p - m_i \right|^2 \tag{10}$$

The specific implementation process of the improved automatic elbow recognition method is as follows.

Step 1 sets the number of clusters $\boldsymbol{k}$ in the range of 2 to 10.

Step 2 The value of SSE corresponding to each cluster number is obtained using the k-means optimization algorithm based on the outlier detection method in this paper, and normalized to 0~10 and added to the list R.

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Step 3 Encapsulate the values in R with the corresponding number of clusters into two-dimensional data points and add them to the list P.

Step 4 Calculate the angle between every three adjacent points in P using the cosine theorem and add it to the list A.

Step 5 Find the value of the subscript $\min_A$ corresponding to the smallest value in A. The value of $\boldsymbol{k}$ is $\min_A + 2$.

Determining cluster centroids

(1) Selection of initial clustering centroids

In order to make the initial clustering centroids more accurately found, the data with smaller lof values (i.e., closer to the clustering centroids) are screened as the candidate set of initial clustering centroids as follows:

Step 1 Calculate the outlier (lof value) of each data point according to Equation (6), and arrange the new data set by lof value from smallest to largest. N_D The smaller the outlier, the more correlated the point is with other data, and the initial clustering center selected is closer to the cluster center position. Note that the $\boldsymbol{k}$ distance parameter of the lof algorithm is given by

The following formula is adaptively adjusted:

$$K\_dist = \beta \times num(datase) \quad (11)$$

Where, $num(dataset)$ indicates the number of data objects in the set dataset, and β value can be set to an empirical value of 0.03 according to the actual experimental situation.

Step 2 Select the first $a*N$ ($0 < a,, 1, N$ is the number of records in dataset N_D) data from dataset N_D for selecting the initial clustering centroids, denoted as F.

Step 3 Calculate the mean c_0 of the data set F, find point c_1 so that c_1 satisfies $\max\left(dis\left(c_0, c_1\right)\right)$, then find point c_2 so that c_2 satisfies $\max\left(dis\left(c_1, c_2\right)\right)$, write c_1, c_2 as the initial cluster centroids, and build the set $C = \{c_1, c_2\}$.

Step 4 Calculate the weighted distance from the remaining data object x_j to set

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$C=\{c_1,c_2\ldots,c_i,i+1,,k\}$, respectively, as $disc_{j1},disc_{j2},\ldots,disc_{ji}$, find the point $c_{i+1}=\max\{\min(disc_{j1},disc_{j2},\ldots,disc_{ji}),\ i+1,,k,x_j\in F\}$, and write c_{i+1} as the $i+1$ initial cluster centroid, i.e. $C=\{c_1,c_2,\ldots,c_{i+1}\}$.

Step 5 Repeat step 4 to find $\boldsymbol{k}$ initial clustering centroid.

(2) Iterative optimization of clustering centers

After determining the initial clustering centroid $C=\{c_1,c_2,\ldots,c_{i+1}\}$, the outlier lof algorithm is used to iteratively optimize the clustering centroids by weighting the distances between data in dataset F. The specific implementation process is as follows.

Step 1 normalizes the outlier between the data using outlier normalization so that the new outlier new_r_i takes a range of values greater than or equal to 1, as calculated in Equation (12).

$$new\_r_i=\frac{Aver\_r-Min\_r}{Aver\_r-ri} \qquad (12)$$

In Equation (12), r_i denotes the outlier of an object in the set F, $Aver\_r$ denotes the average of the outliers in the set F, and Min_r denotes the minimum of the outliers in the set F.

Step 2 calculates the weighted distance $disw(x_j,c_i)$ from each object x_j in F to the clustering center c_i, and then multiplies it with the outlier new_r_i, see Equation (13).

$$D_{ji}=disw(x_j,c_i)\times\ new\_r_i \qquad (13)$$

D_{ji} in the above equation is taken as the true distance from the data object x_j to the cluster centroid c_i. Obviously, the smaller the value of new_r_i, the greater the correlation between point c_i and other data points, and thus the smaller the value of D_{ji} in equation (13), x_j will still be classified into the same class. Conversely, the larger the value of D_{ji}, the more likely it is to be assigned to a different class.

Step 3 calculates the minimum true distance Min_D_{ji} from each object x_j to each point in the cluster center set $C=\{c_1,c_2,\ldots,c_k\}$ and assigns object x_j to the class of c_i.

Step 4 Calculate the mean value of all objects in the same cluster as the new cluster center and update the cluster center set $c'=\{c_1',c_2',\ldots,c_1'\}$.

Step 5 Add set $c'=\{c_1',c_2',\ldots,c_i'\}$ to set F and refresh set F. Recalculate the outlier r_i for each object in F.

Step 6 Repeat steps 1 to 5 until the clustering centers no longer change.

Figure 2 shows the general flow chart of the clustering algorithm in this paper.

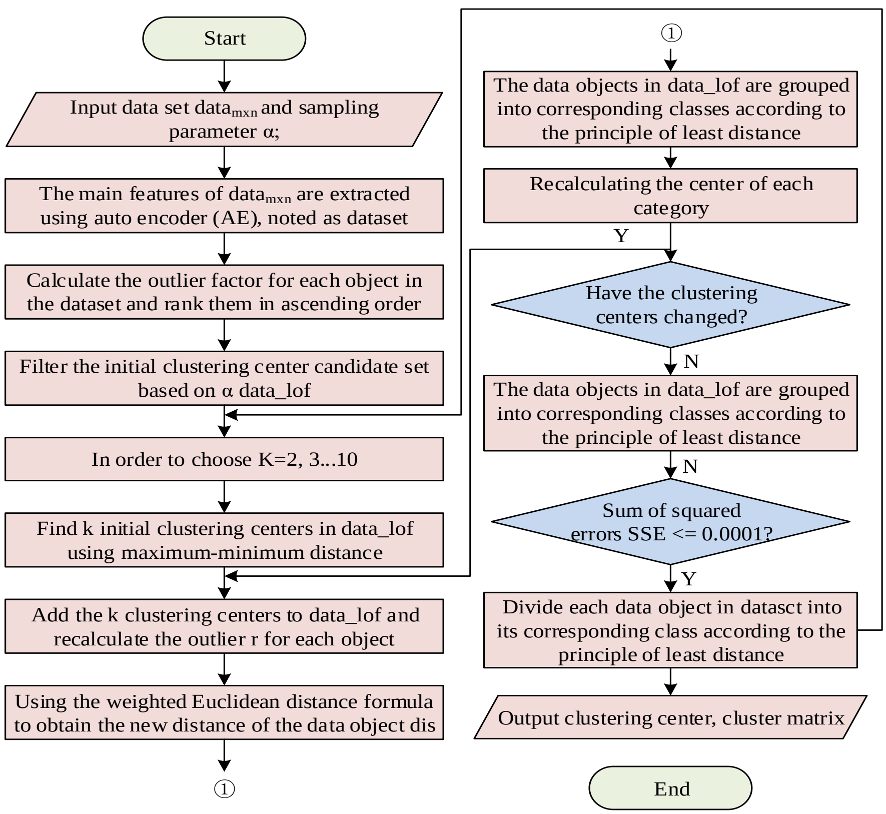

Figure 2 General flow chart of the clustering algorithm in this paper

Results and Analysis

Cardinality Test of English Translation Learning Needs

In this paper, the clustering algorithm is used to mine and analyze the data of cross-cultural

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English translation teaching. The results of the chi-square test for students' learning needs in English translation are shown in Table 1.

The chi-square test was used to analyze whether the difference in the frequency of each option was statistically significant, and it could be found that most of the students believed that the course study was necessary. The cardinality of 39.04 in the survey of course necessity, with a significant p-value of 0, shows that English majors have a more positive attitude toward learning. In contrast, the motivation of non-English majors for course study is not clear, and about 64% of the students have the main purpose of passing exams and getting credits. According to the results of the cross-tabulation analysis, it can be seen that in terms of study time arrangement, English majors spend more time on translation study, but often have difficulty in achieving the desired results. In terms of class time arrangement, there are significant differences among majors, with a p-value of 0.008, among which English majors want to increase the class time arrangement appropriately. In terms of learning methods, non-English majors preferred to learn translation through independent learning after class, while English majors wanted to be guided by teachers to complete the course, with a p-value of 0.001, which was a significant difference. From the analysis results, students of different majors have significant differences in their needs for learning English translation, but the current higher education institutions basically adopt. However, the current higher education institutions basically adopt a uniform lecture format, which is difficult to reflect the differences of majors, resulting in the weakening of curriculum orientation.

Table 1 Results of the chi-square test for students' learning needs in English translation - - Significance

Title	Pearson's chi-squared value	Likelihood ratio	Linearity value	d	Asymptotic Sig (Bilateral)	Minimum Expected Value
a	48. 93a	50.77	9.36	3/3/1	000/.000/. 002	30.7
b	58. 57a	60.23	59. 66	414/1	.000/.000/.000	43.8
c	39. 04a	41. 62	35. 23	313/1	.000/.000/.000	6.8
d	12. 82a	11.82	11.67	3/3/1	0081.008/.001	44.9
e	18.55a	19.34	14.23	414/1	0011.0011.000	4.7

Situational Analysis of English Translation Course Objectives

Figure 3 shows the study goals and motivations of English translation courses. 41% of the students hope to get workplace ability improvement through the course, 39% said they study the course to get a certificate, and 52% to satisfy the need for credits. 37% are for further education

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and to prepare for further study abroad. Another 19% said they took the course to learn about Western culture. 21% said they could have a sense of accomplishment by studying English translation. 31% said English translation is their hobby. 39% said English translation is a good tool to read foreign books and communicate with foreign people without obstacles. Another 36% said they only do it to enrich their life experience and increase their knowledge base.

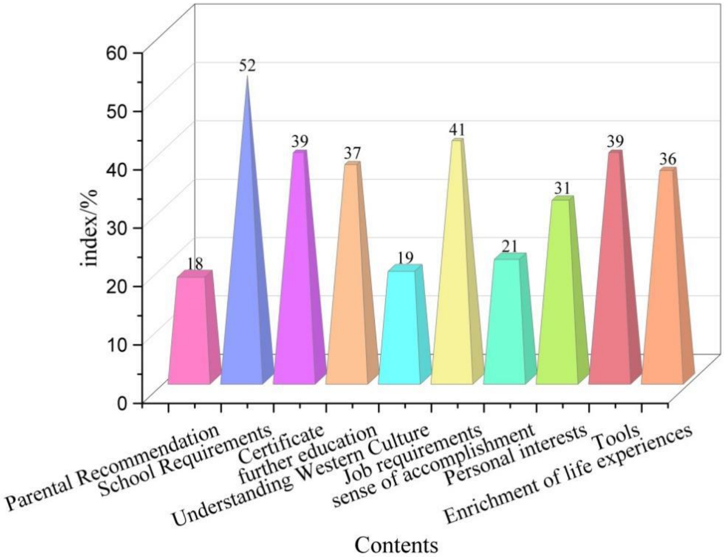

Figure 3 Learning objectives

Analysis of factors affecting translation skills

Figure 4 shows the analysis of factors affecting translation. Students study the course mainly to meet the objective needs of society and pay more attention to the practical use of English. In the survey of factors affecting translation skills, 90% of the students think that translation teaching is only exam-oriented and does not meet the needs of work. 71% of the students feel that the lack of knowledge about the comparison and similarities between English and Chinese languages is the main reason.

The number of students who think that the lack of understanding of English culture is missing and they think their basic knowledge of foreign language is poor are 67% and 62% respectively as the big reasons. In addition, 48% of the students thought that their poor translation was mainly due to their poor comprehension, 33% thought that their lack of extensive practice was the main reason, 29% thought that they lacked a wide knowledge base, and 18 said they had no interest in translation.

In terms of teaching materials and teaching methods, 7% of the students thought that the

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teaching materials were too old and the selection of teaching materials was inappropriate. 10% of the students thought that the teaching methods were outdated and not applicable with the current teaching needs.

According to students' feedback, they often find that they cannot successfully complete the bilingual conversion when facing real professional translation tasks, and even when they are familiar with English sentences, they have difficulties in translating them into Chinese because they lack simulation practice and have difficulty in organizing their words with native-level proficiency, and their language expressions do not conform to language conventions and often have improper collocations or incorrect word order. Therefore, students think that the course teaching can only help them achieve their goals such as examinations, and plays little role in the development of professional ability.

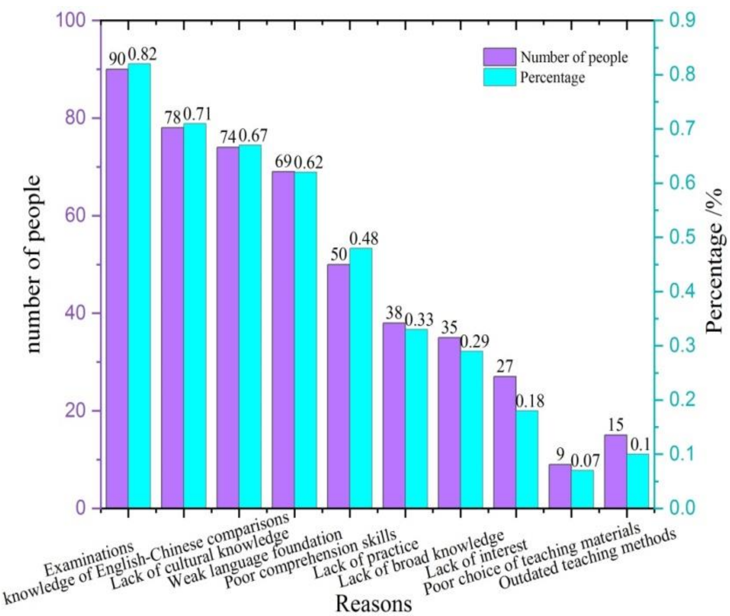

Figure 4 Factors affecting translation skills

Teaching evaluation survey

Students' evaluation of teachers' teaching through the teaching evaluation form is shown in Figure 5. Students were more interested in project-based teaching and task-based teaching method with 26% and 24% respectively; communicative teaching method with 22% and audition teaching method with 18%.

In terms of teaching content, 40% of the students wanted to be interested in translation practical training, 20% in text translation. 21% were interested in business translation, and 19% in political translation. In terms of teaching style, 22% of the students preferred teachers with passionate

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lectures, 31% preferred teachers with strong professional ability, 30% preferred teachers with translation practice experience. 17% preferred teachers with corporate staff experience.

In terms of evaluation methods, 28% of the students preferred unit tests, 26% preferred accompanying tests, 28% preferred group mutual evaluation, and 18% preferred final exams.

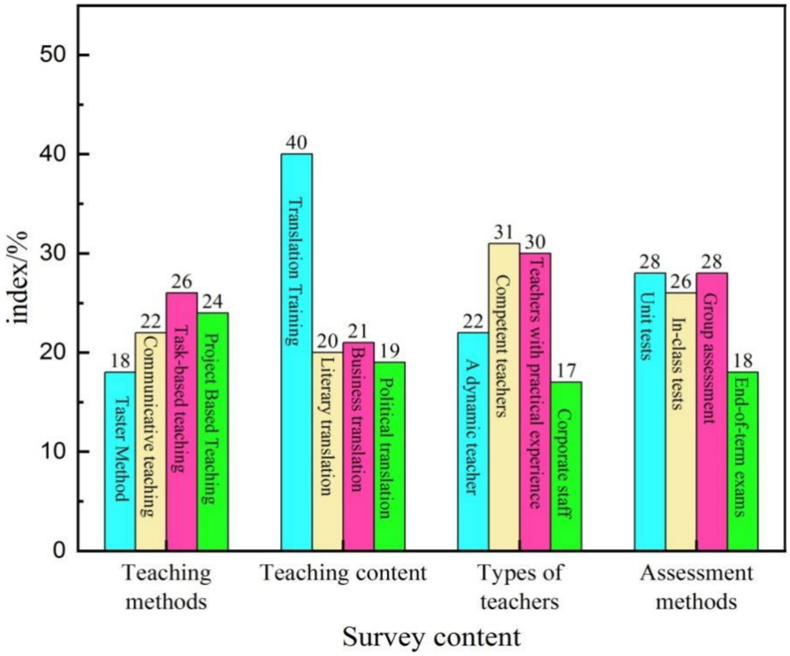

Figure 5 Teaching effectiveness evaluation machine survey

English translation teaching strategies improvement

Figure 6 shows the direction of course improvement. 90% of the students think that we should increase the simulation practice of real communication, increase the knowledge of cross-cultural communication, introduce more communication cases and translation practice activities, etc., so as to practice in context and make the expression of mutual translation more accurate and appropriate in the simulation practice. 19.4% of the students think that we should increase the terminology, so as to build up a good linguistic foundation and make the translation meet the requirements of the style on the basis of complete understanding of the original language. 19% of the students think that the teaching content of interpretation should be enhanced to ensure that they can be proficient in telephone communication and product introduction in their future positions, and that they can accurately complete the bilingual switch. Another 66% of the students thought they should create translation scenarios, 89% thought they should innovate teaching methods. 88% thought they should strengthen cultural penetration, and 77% thought they should optimize translation theory. Another 80% thought that diverse translation techniques should be adopted to activate translation thinking. 87% thought that emphasis should be placed

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on the cultivation of comprehensive abilities, including listening, speaking, reading and writing. 89% thought that learning effects should be evaluated in a reasonable and timely manner. 62% of the students thought that the contextual teaching mode should be the main mode so that translation activities such as interpretation and translation can be carried out in a professional context and practical ability can be exercised. Students demanded diversified contexts for English translation teaching and hoped that learning activities could be carried out from the perspective of language competence development.

It can be seen that there is still much room for improvement in English translation teaching, and most students hope to strengthen their English translation learning in conjunction with professional contexts, and some other students have made demands on terminology and interpretation content learning, so there is still a need to further strengthen course construction and textbook selection in conjunction with students' needs From students' reflections on course teaching, English translation teaching still focuses on language input and pays insufficient attention to students' language output needs, which makes it difficult for students to successfully carry out English translation activities outside of books.

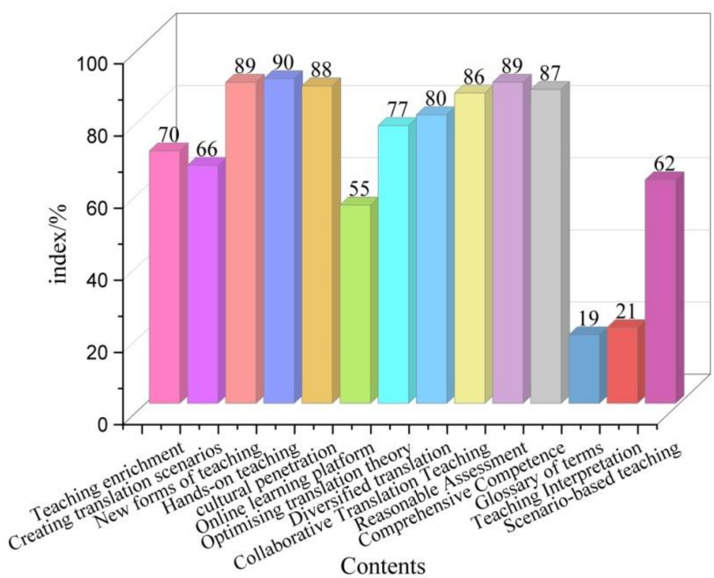

Figure 6. English translation teaching strategies improvement

Conclusion

This paper evaluates and analyzes the teaching of intercultural English translation and now draws the following conclusions:

1. Most of the students do not have clear learning goals, just to complete the requirements and

credits of the school. In terms of the influencing factors of translation, 71% of the students think it is the lack of knowledge about the comparison and similarities between English and Chinese. 67% think it is the lack of understanding of foreign language culture and 62% think their basic knowledge of foreign language is weak. 90% think translation teaching is only exam-oriented and does not meet the needs of work.

2. When faced with real professional translation tasks, students often find that they cannot successfully complete the bilingual conversion, and they think that the course teaching can only help them to achieve their goals such as certification, and plays little role in the development of professional competence.

3. In terms of curriculum improvement, 90% of the students thought that simulation practice simulating real communication should be increased, 89% thought that innovative teaching methods should be introduced, and 87% thought that emphasis should be placed on the cultivation of comprehensive abilities, including listening, speaking, reading and writing. 77% thought that translation theory should be optimized, and 89% thought that innovative teaching methods should be introduced.

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