



Research on the Application of Computer Intelligent Proofreading System in English Phrase Translation

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Abstract. The role of phrase translation in English reading is very important, but there is a problem of poor translation accuracy. Manual proofreading increases the workload of teachers and is less efficient. Therefore, proofreading system for English proofreading. First, AI technology is used to proofread the phrase of English reading requirements, and the horizontal division is carried out according to the phrase proofreading standard to reduce it Distractors in phrase proofreading. Then, AI technology proofreads English phrase translation to form phrase proofreading results, and performs continuous phrase proofreading for transactional phrase proofreading requirements. MATLAB simulation shows that under a certain amount of reading, the evaluation accuracy and phrase proofreading time of the computerized intelligent proofreading system are better than those of manual proofreading.

Keywords: AI technology · Abnormal phrase proofreading requirements · Phrase proofreading · Arts and Crafts

1 Introduction

Translation proofreading is one of the important evaluation contents of English reading [1], which is of great significance for English phrase translation. However, in the actual phrase proofreading review process [2], the accuracy of the phrase proofreading results is low, which has a certain impact on the phrase reading. Some scholars believe that the application of intelligent algorithms to English phrase translation proofreading can effectively improve translation accuracy and provide corresponding support for phrase proofreading [3]. On this basis, this paper proposes a optimize the proofreading phrase and verify the system's effectiveness.

2 Related Concepts

2.1 Mathematical Description of Phrase Translation

Phrase translation uses AI technology to optimize the translation results, and according to the indicators in the translation results, find outliers in the English phrase translation proofreading results [4], integrate the corresponding parameters, and finally judge the

Feasibility of English phrase translation proofreading results [4]. The computer-based intelligent proofreading system combines the advantages of AI technology to quantify the results of English phrase translation proofreading by using auxiliary parameters [5], which can improve the accuracy of phrase proofreading.

Hypothesis 1: The English reading requirement is d_i , the English phrase translation proofreading data is set_i , the satisfaction rate of the English phrase translation proofreading result is y_i , and the phrase proofreading data judgment function is $F(d_i \geq 0)$ As shown in Eq. (1).

$$F(d_i) = \sum x_i \subset y_i \cdot \xi \quad (1)$$

2.2 Selection of Proofreading Scheme for English Phrase Translation

Hypothesis 2: The English phrase translation proofreading selection function is $z(d_i)$, and the weight coefficient of English phrase translation proofreading is w_i , then the translation proofreading selection is shown in Eq. (2).

$$z(d_i) = z_i \cdot F(d_i, y_i) \xrightarrow{k} w_i \cdot \xi \quad (2)$$

2.3 English Phrase Translation Proofreading Data Processing

Before computer phrase translation, the phrase proofreading results should be analyzed discretely [6], and the transactional phrase proofreading requirements should be mapped to the auxiliary parameter library to eliminate abnormal data [7]. First, phrase proofreading data for comprehensive analysis, and set data thresholds and indicator weights computer phrase translation. English phrase translation proofreading data is system test data and needs to be standardized. If English phrase translation proofreading data is in a nonnormal distribution, its phrase proofreading results are affected, reducing the accuracy of the overall phrase proofreading. In the accuracy of computer phrase and improve the level proofreading, it is select English phrase, and the specific scheme selection in Fig. 1.

Survey data shows that English phrase translation proofreading shows a discrete distribution, which is in line with objective facts. English phrase translation proofreading has no directionality, indicating that it has strong randomness, so it is used as an analysis and study of 2~4 min. English phrase translation proofreading meets the standard requirements, mainly, AI technology adjusts English phrase translation proofreading, removes duplicate and irrelevant schemes, and supplements the default scheme, so that the dynamic correlation of the entire data is strong.

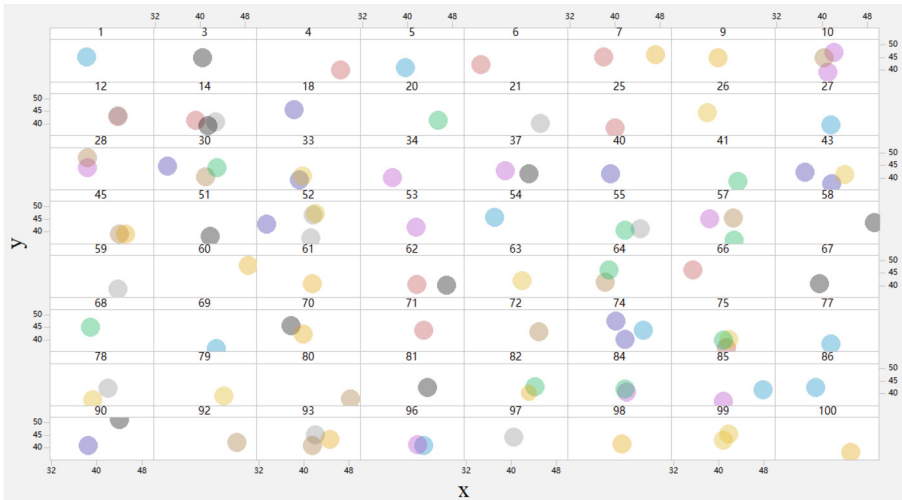


Fig. 1. Selection results of English phrase translation

3 Strategies for English Phrase Translation Proofreading

The computer-based intelligent proofreading system adopts a random strategy for English phrase translation proofreading and adjusts the corresponding parameters to realize the optimization of English proofreading. The divides the proofreading into different phrase proofreading levels, and randomly selects different schemes. In the iterative process, English phrase translation proofreading of different phrase proofreading levels is matched. After completing the matching process, compare the phrase proofreading levels of different schemes to record the best English phrase translation proofreading results.

4 Practical Examples of English Phrase Translation Proofreading

4.1 Introduction to English Phrase Translation Proofreading Data

In order to facilitate phrase proofreading, the English translation proofreading data in complex cases is used as the research object, with 12 paths and a test time of 12 min, which is read explicitly in English the phrase proofreading data is shown in Table 1.

Table 1. Relevant parameter of English reading and English phrase translation proofreading

Scope of application	Phrase proofreading time	Phrase proofing effect	Phrase proofreading satisfaction rate	Phrase proofreading form
Personal phrase proofreading	1~2 min	84.54	86.60	Team, individual

(continued)

Table 1. (continued)

Scope of application	Phrase proofreading time	Phrase proofing effect	Phrase proofreading satisfaction rate	Phrase proofreading form
	2~4 min	92.78	86.60	Team, individual
Corporate phrase proofreading	1~2 min	87.63	92.78	Team, individual
	2~2 min	90.72	84.54	Team, individual
Other phrase proofreading	1~2 min	83.51	92.78	Team, individual
	2~2 min	87.63	90.72	Team, individual



Fig. 2. Processing process of English phrase translation proofreading data

The English reading requirement processing process in Table 1 is shown in Fig. 2.

Table 1 that compared with manual proofreading, the phrase proofreading results of the computerized are closer to the actual phrase proofreading requirements. Regarding the rationality and fluctuation range of English phrase translation proofreading selection, the computer-intelligent proofreading system manually proofreads. The data changes in Fig. 4 shows that the computer-intelligent proofreading system has better stability and faster judgment speed. Therefore, the speed of phrase proofreading results, English

phrase translation proofreading phrase proofreading results, and summation stability of the computerized intelligent proofreading system are better.

4.2 English Phrase Translation Proofreading

The phrase proofreading results of English translation proofreading contain unstructured, semi-structured, and structural information. After the pre-selection of the computerized, the preliminary English phrase proofreading phrase proofreading results were obtained, and the phrase proofreading results were obtained analysis of the feasibility of phrase proofreading results Proofreading. In order to verify the evaluation effect proofreading more accurately, select English phrase translation proofreading with different phrase proofreading levels, and the evaluation data of English reading requirements are shown in Table 2.

Table 2. Overall situation of English phrase translation proofreading

Phrase proofreading grade	Sampling rate	Complete rate
specialized	28.57	85.71
ordinary	73.21	100.00
synthesis	69.64	60.71
mean	26.79	50.00
χ^2	55.36	69.64
P = 0.531		

4.3 Accuracy and Stability of English Phrase Translation Proofreading

In the accuracy of the computerized, the data is compared with manual proofreading, which is shown in Fig. 3.

Figure 3 that the computerized intelligent proofreading system is higher than that of manual proofreading, but the error rate is lower, the phrase of the computerized, while the manual proofreading The proofreading of phrases is uneven. The average data of the above three algorithms are shown in Table 3.

It can be seen from Table 3 that manual proofreading has deficiencies in accuracy and stability in English phrase translation proofreading, and English phrase translation proofreading has changed significantly, and the error rate is high. The accuracy of the comprehensive results is higher than that of manual proofreading. At the accuracy of the computer-intelligent is greater than 90%, and the accuracy has not changed significantly. In order to further verify the superiority of computer systems. In the effectiveness, different methods are used to analyze computer phrase translation comprehensively, and the result 4 is shown.

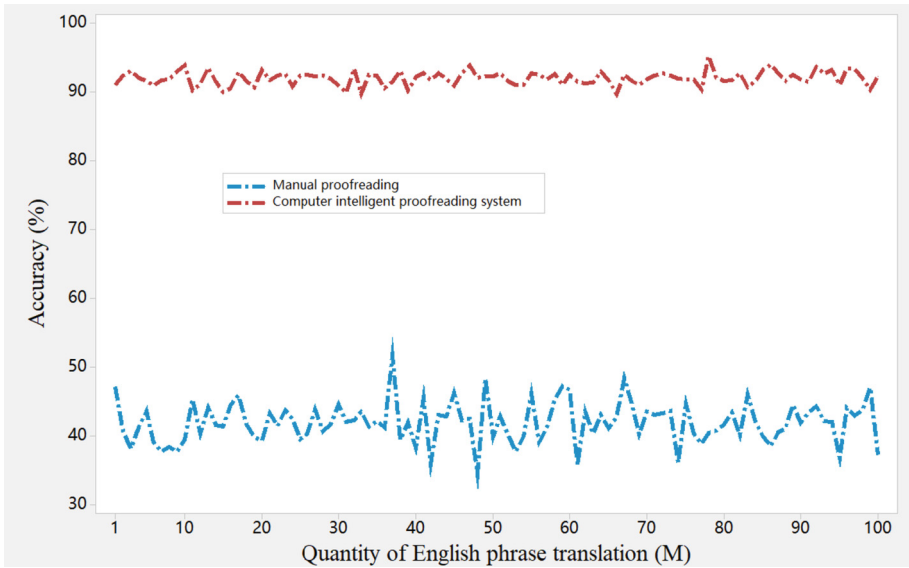


Fig. 3. Accuracy of different algorithms

Table 3. Comparison of phrase proofreading accuracy of different methods

algorithm	accuracy	Magnitude of change	error
Computer intelligent proofreading system	91.75	92.78	2.51
Manual proofreading	86.60	92.78	3.54
P	5.571	9.693	2.471

Figure 4 that the data of the computer-intelligent proofreading system is significantly better than the manual proofreading, and the reason is that the computerized intelligent proofreading system increases the adjustment coefficient of English phrase translation proofreading and sets the corresponding threshold. Exclude non-compliant data.

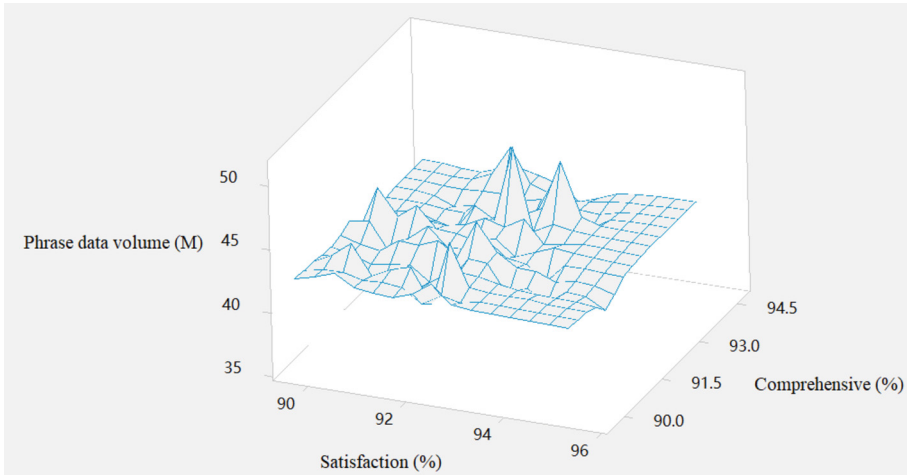


Fig. 4. Comprehensive evaluation results of computer intelligent proofreading phrase proofreading

5 Conclusion

Given the accuracy of English phrase translation proofreading, this paper proposes a computer-based intelligent proofreading system combined with AI technology for comprehensive analysis. At the same time, the content of English phrase translation proofreading is analyzed in depth to construct a collection of English phrase proofreading requirements. Research shows that the computerized intelligent proofreading and stability of English phrase proofreading and can translate and English phrases. Make a comprehensive judgment. However, in the process of computer phrase translation, too much attention is paid to the analysis of phrase proofreading ability, resulting in a relative decline in the accuracy of supervision.

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