Construction of Talent Model for Regional English Teaching based on Linguistic Economics Analysis

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Abstract
Language economics is an interdisciplinary field. It holds that language is not only the tool and medium of information and communication, but also the attribute of economics. In this paper, the author analyzes the construction of talent model for regional English teaching based on linguistic economics. College English education has the same economic characteristics as other resources. The influence of English education on regional economic development is mainly to cultivate high-quality professional talents with good English communicative ability. Local colleges should be based on the regional characteristics, effectively promote the reform of college English teaching, cultivating high-quality applied talents, to better serve the regional economic construction and development services.

Keywords: Functional perspective, Online platform, Linguistic Economics, Human capital

1. INTRODUCTION

With the global economic integration and the development of regional economy, the importance of College English teaching to regional economic development has become increasingly prominent. It has become a common understanding to train applied foreign language talents with the combination of regional economy, profound knowledge in a particular field and good foreign language expression ability. Because computers are constantly improving and progressing, its functions in various fields are also becoming increasingly perfect, and the artificial intelligence, which came into being at the right moment, is also gradually being applied to various fields. The application of computers in education began in the 1980s. In the years of continuous exploration, the traditional English teachers’ classroom teaching ability system theory has achieved fruitful results. However, with the change of the times and the rise of science and technology civilization, the traditional English teacher classroom teaching ability system theory cannot be applied to the modern fast multi-dimensional teaching mode. This is because the artificial intelligence system in teaching and CAI (computer aided teaching) system, compared to the English teacher classroom teaching ability system from single dimension to multi-dimensional effective change, the liberation of English teachers classroom teaching pressure, and from Multi-angle starting to improve the quality of classroom teaching, improve the ability of students more sensory acceptance. In the artificial intelligence system, the BP neural network is introduced, and its development and research have a great influence on almost all aspects of artificial intelligence. At present, on the basis of artificial intelligence, the use of BP neural network computing has made great progress. According to the above background, this paper proposes a construction scheme of classroom teaching ability system of English teachers combined with artificial intelligence.

The gap of high-level foreign language talents has not only made up, but has increased. Education should meet the needs of the society and serve the market, and cultivate the talents needed by the national economic construction. Local colleges should be based on the regional characteristics, effectively promote the reform of College English teaching, cultivating high-quality applied talents, to better serve the regional economic construction and development services. The scope of the research of artificial intelligence system mainly includes the architecture of artificial intelligence, classroom teaching model, knowledge system representation, expert teaching system, virtual reality and learning environment, intelligent help system and so on. In fact, in recent years, great achievements have been made in the development of intelligent systems and classroom teaching practice, especially in improving the classroom teaching quality and promote students' multi-sensory acceptance ability, the effect is outstanding. However, with the depth of related research, many problems began to emerge. For example, today's intelligent systems are mostly directed at simple, easy-to-formalized thinking of procedural knowledge, and are difficult to articulate on content that is difficult to express, such as declarative knowledge; In the current common classroom teaching, the role of students is passive knowledge of the recipient, intelligent systems and students lack of interaction between the exchange.

2. LINGUISTIC ECONOMICS

Different linguists have different interpretations and Views: some people think that language is a semiotic system; language is a way of doing things; it is a communication tool. Some people think that language itself is a kind of human capital. Here, we regard these three language views as "structure theory", "function theory" and
"manpower capital theory" respectively". Saussure, the representative of structural theory and the father of modern linguistics, stresses that linguists should study the structure of grammar rather than pragmatics. He pioneered the modern linguistics, leading the language study in twentieth Century more than half a century, the influences on College English teaching is still clearly visible, such as emphasizing the patterns and grammar teaching, emphasizes the students' language specification and correctness. "Functionalism" believes that language is "doing" means, rather than "knowledge" means, this view of the field of College English teaching reflects the huge play a leading role in the development of communicative approach and long time. Communicative approach holds that language is a communicative tool, and only in communicative practice can we learn how to use it.

The influence of "structure theory" and "function theory" on College English teaching is profound and lasting. Until now, College English teaching can be seen everywhere in grammar teaching, situational dialogue and communicative approach teaching. However, from the social background of the market demand and service employment, College English Teaching in the ivory tower of ignoring the economic value of language, talent and enterprise culture further back on the "time-consuming and inefficient" accusations. So, the economics of language emerging into the linguists' view, provides a new perspective for the reluctant College English teaching. Language economics is a new interdisciplinary subject, such as linguistics, economics and pedagogy. It was first put forward by Marshak, a pioneer of information economics in 1965. He believes that language is not only a tool and medium for obtaining information and exchanging information, but also an economic attribute. The core of language economics research is the value (value) and utility (utility), cost (cost) and benefit (benefit) of language in the economy. The theoretical viewpoints are: first, the language itself is a kind of human capital (human capital); second, language learning is a kind of economic investment of human capital, to consider the investment cost and the expected benefits; third, the use of language reflects the economic value of language, economic value is low; Fourth.

The economics of these basic concepts and basic theory, human capital theory, language education economics, language and economy relation is applied to the study of language, can not only promote the language teaching to better serve the economy, but also provides advanced analysis methods for the language teaching, and can provide a new perspective for College English teaching. Visual angle, human capital theory: the core idea of Language Economics: language itself is also a kind of human capital". Learning one or more languages is an investment in a particular form of human capital, so language competence is also an asset that naturally generates economic benefits. The ratio of "investment cost" to "investment expected benefit" after learning foreign language in college enables people to rationally decide strategic investment in foreign language learning. Therefore, College English is not a dispensable form of education, but should be the booster to train advanced human capital. College English education has the same economic characteristics as the production of other resources. How to spend the least cost to produce the greatest benefit, change the old college English education of "time-consuming and inefficient", is the reform of College English teaching problems. Perspective three: the relationship between language and economy: College English education is closely related to regional economic development. The influence of College English education on the development of regional economy is mainly to cultivate high-quality professional talents with good English communicative ability, and talents are the key to economic development. Similarly, English education in local universities is not behind closed doors, and to combine the regional economic development and the actual needs, requirements of local college students English level of in-depth study of regional economic development, the diversified market oriented, in order to help college graduates' employment as the goal to further improve college English education, in order to achieve the double value of English learning.
3. USING ARTIFICIAL INTELLIGENCE TO REBUILD ENGLISH TEACHERS' CLASSROOM TEACHING SYSTEM

After the introduction of artificial intelligence, this paper designed the combination of artificial intelligence classroom teaching ability system of English teachers in the software design also need to optimize for the two major software systems, one teaching management system, the second is the teaching system. These two systems need to achieve real-time data collection, analysis and processing, the need for two systems to complement each other to ensure the integrity of teaching, while achieving personalized teaching configuration. In the process of data processing, BP neural network is introduced to optimize.

3.1. Introduction of BP Neural Network

In order to ensure the orderly teaching process, in order to ensure the orderly teaching process, in order to ensure the orderly teaching process, the teaching process is Port for data management, the process is as follows:

\[
Y_j = \frac{1}{1 + \exp \left( \sum_{i=1}^{n} \omega_{ij} x_i - \theta_j \right)}
\]

(2)

Herein, \(i= 1, 2, \ldots, n, j=1, 2, \ldots, s\).

In the above formula, \(Y_j\) refers to the valid weight parameter of the overall data identification of the knowledge data end, which can be parameterized so that it can guarantee the control capability; \(\omega_{ij}\) refers to weighted connection weights; \(x_i\) refers to the input value of the iteration input layer; \(\theta_j\) refers to input layer’s feedback level threshold.

The significance of data processing in teaching data port is to obtain a higher evaluation of teaching quality. By analyzing the influence of various factors and factors affecting the quality of teaching, the final summary data is obtained and the data are processed and correctly divided grade. Thus from the teaching work overall point of view, you can establish the following indicators:

- Teaching attitude
- Complete lesson preparation
- Counseling Q & A and correcting homework
In order to ensure the validity of the experiment, the traditional English teacher’s classroom teaching quality system is requisite, can improve the BP neural network computing efficiency. BP neural network calculation model is established as follows:

\[
T_{h_w}(R, T) = \begin{cases} 
\exp(-\beta s / 2 - \eta / 2 + x / 2) \text{if } (x, y) \in H_{ERT1} \\
\exp(-\beta s / 2 - \eta / 2 + x / 2) \text{if } (x, y) \in H_{ERT2} \\
\exp(-\beta s / 2 - \eta / 2 + x / 2) \text{if } (x, y) \in H_{ERT3} \\
\exp(-\beta s / 2 - \eta / 2 + x / 2) \text{if } (x, y) \in H_{ERT4}
\end{cases}
\]

In the above formula, \( H_{ERT1}, H_{ERT2}, H_{ERT3} \) and \( H_{ERT4} \) stand for the four levels of network learning training, this level is divided according to the total times of training within different time span and can be adjusted manually; \( x \) and \( y \) stand for the horizontal and vertical coordinate values of the BP neural network calculation model; \( \beta \) refers to the connection weights of the vertical and horizontal coordinate input layers; \( \eta \) stands for the neuronal thresholds for implicit layers of horizontal and vertical coordinates.

After the above design, the calculation of BP neural network is completed, which solves the problem that the artificial intelligence system and the traditional English teachers’ classroom teaching ability system are incompatible with the data and make it perfect.

### 3.2. Complete the Reconstruction of Teaching Ability System

In order to ensure the validity of the construction scheme of the classroom teaching ability system of English teachers combined with artificial intelligence, this paper designs a comparative simulation experiment. In order to ensure the validity of the experiment, the traditional English teacher’s classroom teaching ability system is used to train the teaching system of English classroom teaching ability system combined with artificial intelligence. In order to ensure the validity of the construction scheme of the English teachers’ classroom teaching ability system combined with artificial intelligence, the parameters are set. Set the range of valid weight parameter \( Y_j \) for the overall data recognition of the knowledge data end is at [35.8-54.7]. Set \( H_{ETR1}, H_{ETR2}, H_{ETR3} \) and \( H_{ETR4} \) as 1000, 2000, 3000 and 4000.

In order to ensure the validity of the construction scheme of the English teachers’ classroom teaching ability system combined with artificial intelligence, it is necessary to optimize and adjust the data of some uncertain factors in the experiment process. Refer to the General Qualification Data Sheet. The reference data are shown in Table 1.

<table>
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<th>Table 1. Data for Reference</th>
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<tr>
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<td>29.0</td>
<td>19.6</td>
</tr>
<tr>
<td>6</td>
<td>30.3</td>
<td>19.8</td>
</tr>
</tbody>
</table>

### 3.3. Experiment Result

In the course of the experiment, two methods were recorded for the random selection of simulated English classroom teaching comprehensive score, and the results are shown in the following table2:
Table 2. Experimental Results Data

<table>
<thead>
<tr>
<th>Times of Experiment</th>
<th>Method in this Paper</th>
<th>Traditional Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>6</td>
<td>8.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Under the inherent change of teaching, it can transform the classroom teaching ability system of English teachers from single dimension to multi-dimension effectively, and can make a lot of classroom teaching of English teachers stress, and can proceed from multiple perspectives to improve the quality of teaching in the classroom.

To sum up, this paper designs the construction scheme of the classroom teaching ability system of English teachers combined with artificial intelligence, which can make the English teachers’ classroom teaching ability system change from single dimension to multi-dimension effectively, which can release a lot of teachers' classroom teaching pressure and can improve the quality of teaching in the classroom from a multi-angle and promote students' multi-sensory acceptance. Thus, it is more suitable for modern English classroom teaching.

4. REFORM OF COLLEGE ENGLISH TEACHING UNDER THE GUIDANCE OF LANGUAGE ECONOMICS

4.1. Reducing the marginal cost of English learning and maximizing the efficiency of human capital

Language, as an indispensable tool in human economic activities, has the same economic characteristics as other resources, namely, value, utility, cost and income. Efficient language teaching must take the marginal cost of learning subjects into account (in economics and finance, marginal cost refers to the incremental total cost brought about by the new product produced by each unit. The concept shows that the cost of each unit is related to the total product quantity. For example, try grading management, teach students in accordance with their aptitude. The new English level is uneven, the school uniform in the English proficiency test, and then according to the results of the placement of new college English learning class, to avoid the "March", to reduce the marginal cost of the main English learning as much as possible. According to students' different English levels, different training objectives and training modes are set up. First of all, the focus is to help students with low English proficiency to lay a solid foundation of English, successfully obtain the certificate of four test, and enter the entrance threshold of workplace English. Secondly, we should fully develop the potential of high-quality English resources among students, because these freshmen with high English proficiency are likely to become the potential population of high-level foreign language talents in urgent need of the country.

Among them, six grade certificate students can get the corresponding extracurricular credits reward. At the same time, the Institute set up a training center dedicated to helping students obtain all kinds of English certificates that help to obtain employment. The effect is obvious and the results are remarkable. Show that the teaching practice for many years, when the students of grade teaching English learning direction set reasonable, strong purpose, the talent will be able to adapt to market demand, the market value increased and the economic...
benefit increased. Visible, provides a very effective mechanism induced by market value of foreign languages for College English teaching reform, so that the local college English teaching have to pay close attention to changes in regional economic development, have to accept the guidance of employment market, in order to achieve the optimal input, output, in order to maximize the benefit of human capital.

4.2. Cultivating advanced English human capital to objectively view the development goal of College English skills

Starting from the theory of human capital, language is an asset, and it is a way of human capital. College English teaching through training with advanced English skills of human capital, promote the progress of science technology area, to create a good cultural environment, affect the regeneration of elements of regional economy, so as to promote regional economic development. However, College English teaching is so important covers only two years time, the total hours of not more than 300 hours, how to have the advanced English skills of human capital in the short time, the situation is less scientific training is really a problem. "International language Roundtable" was based on the language difficult to master a foreign language proficiency required at all levels to the number of hours were estimated, identified four levels, respectively, the primary elementary intermediate, higher intermediate and advanced.

4.3. Setting up expansion courses to improve college students' Employment Competitiveness

How to adjust the curriculum structure according to the market value of foreign languages and the demand for talents, and to train the applied foreign language talents adapting to the economic development is an important topic in the current college English teaching reform. According to the perspective of the economics of language, learning a foreign language is a kind of economic investment, the cost is reflected in the language they spend the time, energy and material expenditure; and its efficiency depends on the studies of language learners, thus to obtain the corresponding revenue and utility. Because many University College English students and the society need not set up speaking, writing, business English interpreting and cultivating students practical ability in the course, in order to meet the needs of the future employment situation, many college students have to pay for the community to participate in various English courses in order to obtain a variety of certificate. The author believes that through the College English classroom teaching to improve the employment competitiveness of college students, in line with the minimum cost of language economics to produce the principle of maximum benefit. In the first year of students learning English basic courses in the second academic year after extensive development courses for students to choose three aspects: first, setting up literature courses of English culture, such as the survey of English speaking countries, the comparison between...
Chinese and Western cultures, European culture courses, through the comparative analysis of similarities and differences between Chinese and Western cultures, to improve students' humanities accomplishment, cultivate more as appropriate and effective communication skills; second, English application skills courses, such as audio-visual, practical writing, translation, interpretation and other courses, to cultivate English thinking, reasoning, judgment and analysis of the practical ability of students.

5. CONCLUSION

Language economics plays an important role in the current college English teaching. We must objectively and scientifically realize that there is a close relationship between language teaching and regional economic development. College English teaching should not only promote the development of regional economy, but also have great economic value and function. Local College English teaching should take language economics as a guide, according to the theory about the existing problems in College English Teaching in the relationship between human capital, economics, education and language education for economic analysis, to improve the utilization of teaching resources; based on the market demand and help the employment oriented, rational allocation of resources, and actively open the regional economic development is an urgent need for better training courses, senior professional talents with strong English language skills, promote the formation of human capital, the full realization of College English language learning the external economic benefits, thereby promoting the harmonious development of regional economy.

Acknowledgements


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