The Construction of Chinese Culture in English Teaching from the Perspective of the Internet of Things

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Abstract. At present, the country pays more and more attention to English teaching (ET). In the process of ET, Chinese culture (CC) is the basis for students to learn English, and it is also an important way to cultivate cross-cultural communication skills and comprehensively use modern language to conduct thinking activities and solve practical problems. However, the reality is that ET is facing more and more serious cultural deficiencies. English learners are constantly exposed to Western culture and gradually weaken their Chinese cultural identity. Therefore, it is very necessary and urgent to carry out the construction of CC in ET. At the same time, the Internet of Things is a product of the emergence and development of the information society. It can not only realize the sharing and utilization of information resources, but also meet the learning needs of students through various intelligent terminal devices, thereby further expanding the scope of application in ET and improving the level of educational informatization. Therefore, it becomes more and more meaningful to study the construction of CC in ET in the context of the development of the Internet of Things. This article uses questionnaire surveys and data analysis methods to understand people's views on the introduction of CC into ET through questionnaire surveys, so as to further complete the work of constructing CC in it. According to the survey results, among the 120 interviewees, 46 people think it is necessary to infiltrate CC in English learning, while only 7 people think it is unnecessary. It can be seen that, in the eyes of most of the interviewees, it is necessary to understand and learn CC in ET, and it will also be of great help to English learning.

Keywords: Internet of Things, English Teaching, Chinese Culture, Cultural Construction

1 Introduction

In the context of globalization, China, as a big country, is inextricably linked with the world. And ET is an indispensable part of Chinese education. However, there are many problems in ET, such as the lack of CC. Under the new situation, how to effectively use and develop university resources to improve the quality of talent training and to construct CC has become a topic of current concern. At the same time, with the continuous development of Internet of Things technology, the education field is also actively exploring new models,
while also providing new ideas for the reconstruction of CC.

At present, the research results on ET and the introduction of CC are very rich. For example, Shi Zijuan proposed a college ET model based on the perspective of the Internet of Things. Through sufficient speech perception and information transmission, students can improve their ability to use language and achieve the goal of college ET reform in the new stage [1]. Liu Yingxin believes that it is necessary and feasible to maintain cultural safety in college ET, and it is necessary to introduce and learn CC under the guidance of reasonable principles [2]. Zhang Shenghua introduced the phenomenon of the lack of CC in college ET from a cross-cultural perspective, and emphasized the need to enhance students' cultural recognition ability and improve students' ability to express CC in English [3]. Therefore, this article combines the perspective of the Internet of Things to explore the construction of CC in ET from a new perspective, which has important research value and educational significance.

This article mainly discusses these aspects. First, the Internet of Things and its related content are explained. Then, it also introduces the current research of ET and the necessity of constructing CC in ET. Finally, a questionnaire survey was carried out around the question of "whether it is necessary to infiltrate CC in English learning", and the survey results and analysis conclusions were drawn.

2 The construction of Chinese culture in English teaching from the perspective of the internet of things

2.1 Internet of things

Certain achievements have been made in the development of the Internet of Things technology, and it has gradually penetrated into the education field. It came into being as a new thing and idea. The concept of the Internet of Things was first proposed by Kevin Ashton. It uses wireless sensor networks, global positioning systems, radio frequency identification systems, two-dimensional codes and other equipment and information collection systems to allow various objects to go online in accordance with the agreed protocol, and realize intelligent perception and communication through information sharing and communication. The core of the Internet of Things is the Internet, but the main part of the Internet is people and computers. The Internet of Things can realize the communication between things and things and between people and things [4-5]. The architecture of the Internet of Things is shown in Figure 1.

![Fig.1. The architecture of the Internet of Things.](image)

The core of the Internet of Things is depth perception, extensive networking and intelligent processing. Among them, the perception and communication capabilities of
objects play a fundamental role in the application and development of the Internet of Things. It combines traditional sensors with network communication technology and is one of the key implementation and support technologies at the end of the Internet of Things.

With the continuous development of the Internet of Things technology, the education field is also actively exploring new models and has made certain achievements. For example, sharing teaching resources through network platforms such as "campus network" and "micro classroom". At the same time, a variety of forms such as the interconnection mechanism between the school and the enterprise, the school-enterprise cooperation relationship, and the student's personal learning space have been established to realize the exchange of information between teachers and students, and the development of online course testing activities to enrich the ET system. The scope of functions and application scenarios of the sci-fi, promote teachers and students to communicate with each other in practice and improve their mutual understanding ability, collaboration level and comprehensive quality [6-7].

2.2 The relationship between language learning and culture

Language is the carrier of culture, and language and culture are closely connected. As we all know, learning English is inseparable from the language environment, but second language acquisition cannot replicate the language and culture in the process of language acquisition. Chinese-English learners pay more attention to excellent teaching materials, foreign teacher training and practical opportunities for overseas exchanges. Everyone often forgets that the most common language environment for Chinese and English learners is the native language environment.

From the perspective of the influence of culture on language. Culture initially restricted the formation and development of language systems. For example, the formation of lexical meaning is inevitably restricted by various cultural factors, including local ethnic traditions, customs, religious beliefs, lifestyles, and even geographical environment. By learning any language vocabulary, you will find that the relationships between all the objective things mentioned and abstract concepts and their names permeate the actual experience and experience, and all reflect the understanding and feelings of real people. Secondly, culture also affects the way people think and express themselves in language. Some researchers believe that language use and language use analysis should be combined with the appropriate social and cultural environment, social origin and speaker's status, and specific communication situations. The influence of culture on language can be said to be very far-reaching. It includes not only the obvious elements of language, but also the internal thinking of language and the external expression of people. Pragmatics is the main branch of linguistics, which emphasizes the study of meaning in context. Every social custom includes all aspects of its own culture [8-9].

In summary, it can be said that learning CC can cultivate students' deep understanding of language, and also provide them with a lot of real and fresh language materials for learning English, so as to help students learn English better. Language and culture live in harmony, interdependence, influence each other, and are inseparable. ET should fully consider the cultural function of the language, not simply use language as a symbol, but also make full use of the role of mother tongue culture in understanding the target language and culture to help improve students' overall language ability, thereby enhancing students' communication between different cultures Awareness and ability.

2.3 The necessity of constructing Chinese culture in English teaching

The core of cultural construction is a relationship of mutual influence, interaction and
restriction between people and the environment. In this process, we need to use a certain form to express. This change is mainly reflected in the individual's attitude towards things or social phenomena and their behavior patterns. To a certain extent, people will make appropriate adjustments when they are influenced by the outside world to change their behavior patterns or conceptual patterns, so that the social and cultural construction can be improved and improved.

The construction of culture is a complex process. It is not only affected by factors such as social development, historical evolution and realistic conditions, but also restricted by factors such as national traditional habits and customs. First of all, culture has a certain degree of stability, because it is not a product of immutability and immutability. Secondly, what is involved in the construction is the formation of stable social relations after the integration of nations, regions and countries. Finally, there are differences and diversity among different ethnic groups. Therefore, only through the analysis and research of language and cultural environment can we better realize the goal of Chinese cultural construction [10-11].

In the process of learning, English learners are constantly exposed to Western culture and gradually weaken their Chinese cultural identity. The role of CC in ET cannot be ignored. It can not only help students understand Western countries and their mother tongue, but also improve learners' understanding of China and CC. At the same time, it is necessary to actively use this new situation to provide more opportunities for foreign language teachers to help students solve certain problems and cultivate their understanding of traditional CC. A thorough understanding of mother tongue culture is a gradual process. In this process, only by consciously comparing CC and Western culture can one gradually understand the other's culture in English learning, identify with one's own culture, and overcome cultural shock [12].

3 Questionnaire and research

3.1 Questionnaire design process

In this questionnaire survey, the subjects selected for the survey are English teachers, scholars, English majors and non-English majors. The questionnaire survey was conducted in N City, with a total of 120 respondents. Through the issuance of online questionnaires or paper questionnaires, the collection and quantitative analysis of the information filled in by users are carried out to draw conclusions of the questionnaire.

(1) In the preliminary preparation of the questionnaire, the number of questions should be as concise as possible to avoid fatigue of the interviewees.

(2) The questionnaire is released. Questionnaires were distributed through online questionnaires, on-site questionnaires, and inviting friends to help ask friends and students around them to fill in the questionnaires. A total of 120 questionnaires were distributed and 120 valid questionnaires were returned. The questionnaire recovery rate was 100%.

(3) Questionnaire analysis. Organize the collected questionnaire information to get the required information data. Analyze the results of the questionnaire, including the respondents’ opinions on whether it is necessary to infiltrate CC in ET. Some of the results obtained from the questionnaire are as follows.

3.2 Calculation method of reliability in questionnaire survey

In the questionnaire survey, whether it is an online questionnaire or an on-site questionnaire, there may be more or less errors. Among them, random errors are unavoidable, and
systematic errors should be avoided or reduced as much as possible. Because in the actual questionnaire survey, the systematic error is difficult to decompose. Reliability is generally defined as the proportion of the variance of the true score in the total variance. The specific calculation method is shown in formula (1)(2)(3).

\[ Y = R + A + F \]  
\[ \varphi_Y^2 = \varphi_R^2 + \varphi_F^2 \]  
\[ Conf(Questionnaire) = \sqrt{\frac{\varphi_R^2}{\varphi_Y^2}} \]

Among them, Y is the data obtained by directly conducting the questionnaire survey, R is the real statistical data, A is the error data in the questionnaire survey system, and F is the random error data. \( \varphi_Y^2 \) is the variance of the measured data, \( \varphi_R^2 \) is the variance of the true statistical data, and \( \varphi_F^2 \) is the variance of the random error data.

3.3 Questionnaire survey content

The first part is the selection of 120 citizens of City N. The interviewees are divided into English teachers, scholars, English majors, and non-English majors according to their occupations, and investigate the necessity of infiltrating CC in English learning.

The second part is to sort out the information collected in the questionnaire and understand the necessity of 120 interviewees to infiltrate CC in ET. Part of the questionnaire survey results are as follows.

4 Analysis and discussion

In this questionnaire, the necessity of permeating CC in ET was conducted on English teachers, scholars, English majors and non-English majors. The survey results are shown in Table 1.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Very necessary</th>
<th>Necessary</th>
<th>General</th>
<th>Unnecessary</th>
</tr>
</thead>
<tbody>
<tr>
<td>English teacher</td>
<td>12</td>
<td>13</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Scholar</td>
<td>11</td>
<td>15</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>English majors</td>
<td>10</td>
<td>13</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Non-English majors</td>
<td>13</td>
<td>10</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1. Results of the questionnaire.

Fig. 2. Results of the questionnaire.
It can be seen from Figure 2 that among the 120 interviewees, 46 people think it is necessary to infiltrate CC in English learning, while only 7 people think it is unnecessary. It can be seen that, in the eyes of most of the interviewees, it is necessary to understand and learn CC in ET, and it will also be of great help to English learning.

5 Conclusion

Nowadays, in the process of ET, English learners are constantly exposed to Western culture and gradually weaken their own Chinese cultural identity, thus neglecting the learning of CC. Understanding the connotation and background of CC is of great help to English learning. At the same time, as a product of the development of a modern information society, the Internet of Things can effectively integrate various network information resources to achieve common progress between people and the environment. At the same time, the use of Internet of Things technology to innovate teaching models is also one of the important conditions required for a country to improve the level of education. Therefore, this article has its value in studying the construction of CC in ET in the context of the development of the Internet of Things.

References

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