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Effective ESL Teaching Using Culturally Relevant Materials

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Abstract: Increasing students' interest and motivation has been shown to improve outcomes for English as a Second Language (ESL) teaching. Most material for teaching English in China is written by foreigners and imported and contains material that focusses on Western culture and values that are often quite alien to Chinese students and does not promote Chinese culture and values. Providing culturally relevant material is hypothesized to enhance interest and learning. This paper reports a study of 265 Engineering Chinese non-English major college students' Oral English Course who were presented with culturally relevant material to learn English. These students had previously been exposed to Western produced teaching texts and materials. The research was designed to present culturally relevant material in the classroom and to survey students to gauge whether this material increased interest, motivation and learning. An analysis of the results showed that students overwhelming supported the use of these new materials and thus the hypotheses were supported. It is recommended that the culturally relevant material should be used in teaching English as it increases motivation and interest and encourages students to learn more of and take pride in China's cultural and historical heritage.

Key words: Culturally relevant, effective English teaching, cross-cultural communication competence, Chinese students

1. Introduction and Literature Review

There's abundant evidence to show that language and culture are deeply interconnected. The effective teaching of English as a second language and the cultural context has been the subject of numerous academic papers. It is widely recognized that as language and culture are intimately linked in terms of the nuances of meaning, there are complex cultural assumptions made by native speakers when communicating in English and equally significant puzzlement and confusion on the part of non-native speakers. On the one hand scholars have argued that the target language should reflect the political, social, and cultural context of the target country to effectively teach the language. That, in fact the language, devoid of the cultural connotation is not complete and leaves the learner unable to effectively communicate with native speakers. In other words, the non-native speakers need to learn the context of the meta-meaning embedded in the language to fully be able to communicate in that language. Being ignorant of the social and cultural background leaves students nonplussed and often feeling alienated when trying to understand the language. To impart enough of the cultural background while teaching English is a problem as non-native teachers of a second language often lack knowledge of the cultural nuances unless they have lived in the target country for a considerable period of time. Further, foreign native language teachers often face an equally difficult problem as they make the same assumptions as the writers of the textbooks and are often unaware of the difficulties in making the meaning of the target language clear. One solution to this problem is to have teachers and students undergo cultural studies courses in conjunction with their language teaching and learning (Hsin, 2005; Gene and Bada, 2005).

On the other hand, there is a body of literature that advocates for teaching a second language using materials that are culturally relevant to the learners of English. They argue that the cultural assumptions inherent in the language are not only barriers to effective learning but tend to alienate the learner as the context is irrelevant to their experience. They argue that culturally relevant material that reflects the realities of the social context in which the learner lives not only facilitates learning but enhances the historical, political and cultural knowledge of the country to which they owe allegiance (Mansoor, 2004). Moreover, others have argued that learning the culture of the target language speaker is irrelevant and there is no need to internalize the cultural norms of native speakers for several reasons. Firstly, the diversity of the cultural groups that speak English precludes the possibility of including all the cultural nuances of English speakers, for example the formality or courtesy of the British speaker compared to the informality of the American speaker. Even then this is a generalization and differences arise within the myriad of regional differences (the Boston speaker as opposed to the East End Londoner) and other ethnic and cultural sub-groups for whom English is their first language. Secondly, English is primarily taught for functional reasons rather than any attempt to master regional and minorities dialects and cultural assumptions as it has become an international standard for most communication. English can be taught to facilitate competent communication in areas such as law, contracts, business and professional contacts, academic conferences, studies and research

communication and does not need to attempt to try to include the cultural diversity of English-speaking groups. (Zheng, 2015; Alptekin, 2002). The exception might be for second language learners who find themselves studying or living in an English-speaking environment. It is argued that the most effective way to understand and communicate is to have a basic command of formal English and then immerse the learner in the specific environment in which they find themselves and to familiarize themselves with the cultural context in which they live. It is quite apparent that there is not one culture associated with English, but more likely to be as many cultural understandings as there are speakers of English.

A critical look at the materials available for the teaching of Oral English in Tianjin University (TJU) reveals that most of them are imported with the contents mainly reflecting western countries' traditions and values. For example, for the Oral English Course for undergraduate engineering students, the series of textbooks *Let's Talk* and *New College English Listening and Speaking Course* are used. To reduce students' alienation from English study, we need to reform and restructure the teaching materials in order to make them more relevant and meaningful for them so that they could get involved in the classroom activities with enthusiasm. Another important factor that can help motivate students is to make it clear that the ultimate goal for their English study is to improve their necessary cross-cultural communication competence living in the age of globalization. Through English, the most widely used and universal language in the world, students can not only widen their horizons by quickly catching up with the latest developments in many fields such as in that of science and technology but also can enhance their cross-cultural awareness and communication with people from different cultural backgrounds. Chinese students also shoulder the responsibility of spreading Chinese culture and values to the outside world.

Therefore, teaching English using culturally relevant material seeks to teach the basic vocabulary and structure of English and how to communicate effectively in a way that makes it interesting and motivating and avoids the nuances of meaning and values that create unnecessary barriers to learning the language.

The hypotheses to be tested included:

i. Is it important to keep Chinese traditions, culture, and stories alive when learning English?

ii. Is using culturally relevant material more enjoyable and understandable to learn English?

iii. Is using culturally relevant material more motivating to learn English?

iv. Is it preferable to use Chinese materials with cultural references that are familiar rather than Western materials?

v. Is using culturally relevant material more important for China's national interests rather than using he material from the West with its biased cultural content?

2. Method

2.1. Participants

265 Chinese Engineering (non-English) major college students' in the Oral English Course were presented with culturally relevant material to learn English. These students had previously been exposed to Western produced teaching texts and materials. The research was designed to present culturally relevant material in the classroom and to survey students to gauge whether this material increased interest, motivation and learning. Students responded to 8 questions using a four-point Likert Scale.

Instructions

An explanation was given for the need for the research for those being surveyed: "This survey is a part of a research study on the use of culturally relevant material for teaching English conducted by the Tianjin University, College of Languages and Literature. The survey is based on the English lessons during this semester based on Chinese idioms and a book of Traditional Chinese Stories that you know well."

"You are requested to answer the questions as well and as candidly as you can. All responses will be confidential and no student names will be revealed or linked to any answers."

2.2. Procedure

To increase the content of culturally relevant materials three techniques were trialed in English classes of second year Engineering students. All the students had experienced teaching of English using imported English text books and materials in the previous semester. The first two techniques were to introduce Chinese cultural elements into the lessons and the third technique was to use traditional Chinese Stories, written in English as plays to be acted in class. In previous classes teachers had usually used Western plays or TV dramas such as The Importance of Being Earnest by Oscar Wilde; Cinderella, Alice in Wonderland, Beauty and the Beast, and The Lion King (Walt Disney Animation Studios); Merchant of Venice, A Midsummer Night's Dream. Macbeth, King Lear and Romeo and Juliet by William Shakespeare. While it could be argued that the Western stories and plays are classics and of universal appeal it could be equally said that the body of stories and plays of Chinese origin cover similar literary themes and are of equal or of greater literary merit and deserve world-wide promotion as such.

2.2.1 Cultural comparisons

Most of the activities designed in the textbook *Let's Talk* are fluency activities with an emphasis on communicating ideas rather than on avoiding mistakes. Students should try to continue talking and they should ask for help with vocabulary and structures only when necessary. In order to increase the chances of each student practicing speaking, usually one class with about 50 students is divided into 8 or 10 groups so that group members cooperate in fulfilling language tasks and each group competes with other groups in doing their presentations, playing games or debating some controversial topics.

Take one topic 'Holiday' in the textbook of *Let's Talk* for example. Since the writer of this textbook is American, the language tasks are mainly concerned about western culture. Students are required to talk about the history of some western holidays like Christmas, Thanksgiving, Halloween, Easter Day etc., how western people celebrate these holidays and when. Although students can easily search online to find the answers to these questions, they usually fail to completely understand the deep cultural connotations. They usually don't have much to say until their favorite Chinese holidays are optional for them to talk about. They grew up with rich experience and understanding of Spring Festival, Mid-Autumn, Dragon Boat and some other Chinese Festivals so that they tend to keep talking in more detail about their well-known history, symbolic meanings and special local customs and traditions. The only challenge for them was how to use proper English to express themselves. In this study the Chinese ESL teacher with a rich cross-cultural experience encouraged students to do cultural comparisons, for instance by comparing American Thanksgiving and Chinese Spring Festival, which could help them understand there are some differences in terms of historical origin and typical festival symbols and their cultural connotations but both share some similarities in the way people celebrate them and send good wishes to each other. It was thought that language activities involving cultural contrast achieved better teaching results as students felt more positive and interested when they learnt something new about a foreign country's history, traditions and customs and they could also feel proud and confident about Chinese long history and rich cultural legacy. Doing cultural comparisons helped students become more open-minded and stimulate their creative thinking when they became more aware of the world's cultural diversity. Their interest in the topic and corresponding active participation in the discussion in turn benefited their English proficiency level and practical improvement.

2.2.2 Exploring Chinese idioms and metaphorical expressions

The ability to explain and describe in English is one important indicator of one's English proficiency. Therefore, in the oral English class, in order to stimulate students' interest in participating and exercising their ability to converse in English, the whole class was divided into different groups in playing a competitive guessing game with Chinese four-word-animal idioms (containing the name of a certain 'animal'). Each group was composed of 5-6 students who tried to accurately guess as many idioms as possible within the limited time of 90 seconds with 1-2 students randomly choosing a piece of paper from the teacher with the animal idioms written on it. These two students were responsible for explaining in English the literal or implied meaning of the idioms without mentioning any word in the idiom including the name of animal while other students in this group who are not allowed to read the paper were responsible for guessing in cooperation based on their explanation with a little hint of body language. The winner of the game was the group who could guess most idioms correctly. For example, a few animal idioms were: 狼吞虎咽 (literally means eating like a hungry wolf or a tiger, used to describe a very hungry person) ; 对牛弹琴 (literally means playing the lute to an ox—addressing the wrong audience ;) 鹤立鸡群 (literally means 'A crane standing among chickens—used to describe someone is very outstanding, being a giant among dwarfs); 鼠目寸光 (literally means a mouse can see only an inch ahead—cannot see beyond the length of one's nose; used to describe someone is short-sighted in pursuit of short-term benefit) 如鱼得水 (literally refers to fish in the water, similar to an English expression used to describe someone who takes to something like a duck to water); 守株待兔 (literally means 'to stand by a tree stump waiting for a hare to come and dash itself against it, —'waiting foolishly for a most unlikely windfall; waiting for gain without pain).

There is another unit in the textbook of *Let's Talk* with the discussion topic of **Food**. Students may enjoy talking about their favorite foods and where to eat but not necessarily enjoy talking about their favorite recipes and the way how to cook with some ingredients especially for male students and they often do not like or are familiar with main-stream Western food. Thus, the lesson content was restructured by adding some culturally relevant materials. There's a well-known Chinese saying '民以食为天' literally means 'the masses regard food as their heaven', that is to say 'food is the first necessity of the people'. Chinese food culture is so rich that its influence goes far beyond the food itself and involves all aspects of Chinese people's daily life. People often subconsciously describe their life experience in a metaphorical way related to food and eating habits. Of course, this kind of metaphorical expression is taken for granted by Chinese people and it may be very difficult or confusing to foreign friends who have little understanding of Chinese culture. For the group activity, students were assigned to different groups to come up with 5 to 6 metaphorical expressions in Chinese related to food and eating and then they tried to explain their literal and implied meanings in English. To name a few metaphorical expressions for example: 吃香 (literally 'eat delicious food' while its actual meaning is 'very popular; well-liked; welcomed; valued; cherished; being the current rage/the latest rave; have/gain/get/win an advantage (of); be in an advantageous position;') 脍炙人口 (literally 'minced meat/roasted meat that are loved by people' while actually it's used to described good works of arts that win universal praise), 哑巴吃黄连 (literally means 'a dumb person taking a dose of bitter medicine' actually it refers to (be compelled to) suffering humiliation, insult in silence); 吃不了兜着走 (literally 'When you can't finish the food, you must take away the left-overs' while actually it's used to say 'someone must be responsible and bear all the consequences because of his own choice'). Moreover, the students were encouraged to try their English to describe Chinese concept of Yin and Yang in their daily eating practice and for reasons of health care.

There are abundant impressive authentic American/ Australian/ British/ Canadian/ English audio and video materials to choose from, which would be beneficial for the students to practice their listening

and speaking in English. They are better than culturally irrelevant 'textbooks' to initiate discussion with students and stimulate their enthusiasm to talk. Judging from some of the idioms appearing in Chinese news media, students could easily conclude that the differences in culture and values of different countries lead to wide differences in policy responses of governments and attitudes and behavior of their citizens. For example, the most frequently used idioms are 风雨同舟 (People in the same boat should help each other in distress; to stand together regardless of the situation) 众志成城 (unity is strength, make concerted efforts). 雪中送炭 (deliver charcoal to somebody's doorstep in snowy weather—provide/render timely help) 投桃报李 (give a plum in return for a peach—exchange gifts/favors; be grateful); 水能载舟，亦能覆舟 (the water supporting a ship can also upset it—People can support or overthrow the government) ; 尊老爱幼 (respect the aged and love the young—Chinese culture favors collectivism. Everyone knows his or her role in the battle against poverty) . Since the Chinese government gives the first priority to protecting every citizen's life security whatever the age, thus Chinese idioms have a long history and rich cultural connotation. Chinese students pick up these idioms in the process of their growing up in their familiar Chinese cultural environment. However, the concise expression and rich connotation of Chinese idioms can confuse foreign friends. The information gap generated by language communication involving Chinese idioms and some metaphorical expressions that reflect Chinese culture and values can be more appealing to those friendly international people who have shown interest learning about China. The class language activities in English involving Chinese idioms and metaphorical expressions not only can help Chinese students practice more speaking English, but also improve their cross-cultural competence spreading Chinese culture and value to the outside world.

2.2.3 Creative role playing based on Chinese traditional stories

The highlight of culturally relevant teaching for Oral English Course during this semester was to assign students a group presentation task by role-playing creative dramas based on Chinese traditional stories. English drama performances can help students fully immerse themselves in the English context and practice their English speaking involving expanded vocabulary and more complex English sentence structures to express ideas and emotions more smoothly. Due to their insufficient background knowledge of British history, language and literature, Chinese non-English major engineering students would find it difficult if only given limited time to prepare to put on a short play adapted from any Western sources. Material that has been typically used are plays and TV dramas. For example: The Importance of Being Earnest; Cinderella Studios; Snow White and the Seven Dwarfs; Alice in Wonderland; Beauty and the Beast; The Lion King; Merchant of Venice, A Midsummer Night's Dream. Macbeth, King Lear and Romeo and Juliet, Analysis of the content reveal many historical, cultural and social assumptions that many Western students would be familiar with, but for Chinese students many would be irrelevant and confusing.

Thus, the best solution for students is to put on short plays in good English based on Chinese traditional stories, which became possible with the publication of the books 'Traditional Chinese Stories' written in the form of short plays in English and Chinese by our Australian English teacher (Colquhoun, 2018). While he was teaching English at TJU, the outlines of the sixteen stories were written from memory by his 500 students, which they had learnt as children and then they coordinately researched and rewrote these stories during class time. The sixteen traditional Chinese stories include legends and folk tales, tales from the classics, history and tales of morality. The teacher subsequently rewrote all the stories during the summer semester break. These popular traditional stories, full of Chinese cultural connotations and values were so familiar to the students as they grew up that they hardly had any problems in understanding. Instead, in the process of four weeks of cooperative study outside the class, students as group members appreciated the chance to work together in their spare time choosing their favorite story different from other groups' and then discussed how to adapt it creatively, after that assigning roles and then rehearsing them in English again and again. Finally, in the oral English class, each group took turns to perform their creative 10-15 minute short play of a classic Chinese story in English, while other group members as audience and judges along with the teacher watched their presentation and then made comments on their performance in terms of story adaption, English fluency and accuracy, and drama performance and chose the best performers. Finally, the teacher made comprehensive comments and gave constructive suggestions for improvement.

Role-playing drama in English based on Chinese traditional stories proved to be a successful practical exercise of culturally relevant English teaching.

2.3 Data Collection: Survey

To analyze the effectiveness of the teaching a survey was conducted in each of the eight classes after trialing these culturally relevant materials. Eight questions to test the hypothesis were designed and responses were to be recorded on a four-point Likert scale and the ordinal data analyzed using descriptive statistics and nonparametric Chi squares tests.

The questions were:

Question 1: Did you find the material interesting and enjoyable?

Question 2: Did you learn new knowledge about our cultural heritage?

Question 3: Did you feel that it was preferable to learning western plays and reading material?

Question 4: Did you feel it is important to use culturally relevant material that increased knowledge of Chinese literacy culture and Chinese values?

Question 5: Does the use of this material better enhance the goals and progress of the nation?

Question 6: Did using this material make learning more

effective?

Question 7: Were you more motivated to learn English using materials that were familiar?

Question 8: Would you like to see more material based on Chinese history, culture, and everyday topics included in the English learning materials in the future?

Responses were recorded and scored using a Likert Scale, with 1.; No, not at all, 2. Not much, 3. Quite a bit, and 4. Yes, very much

3. Results

The null hypothesis was that there would be no difference in the frequency of responses to the eight survey questions for rating the use of culturally relevant material to teach English. The responses on all questions were overwhelmingly positive and the hypotheses were supported. The results could be considered robust and representative of the population of university students studying English as 265 second year students were surveyed. A distribution table for each question is seen below and the results were analyzed using a nonparametric Chi Square test. The tables indicated a very significant positive response with over 80% of students either answering, "Yes, Very much" or "Quite a bit" on each question.

A description of the results follows:

Question 1: Did you find the material interesting and enjoyable?

Table 1. Student responses to Question 1.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	6	2.26%
2. Not much.	34	12.83%
3. Quite a lot.	100	37.74%
4. Yes, very much.	125	47.17%
Total valid responses 本题有效填写人次	265	

For Question 1, as shown above in Table 1, 84.9% of the responses were positive. If the null hypothesis were supported the expected frequency for each response would have been 66.5. The observed frequency can be seen in the table. The Chi-square value was 139.26 (df=3, p=0.001) and is highly significant.

Question 2: Did you learn new knowledge about our cultural heritage?

Table 2. Student responses to Question 2.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	6	2.26%
2. No, not much.	31	11.7%
3. Quite a lot.	123	46.42%
4. Yes, very much.	105	39.62%
Total valid responses 本题有效填写人次	265	

For Question 2, as shown above in Table 2, 86.4% of the responses were positive. The observed frequency can be seen in the table. The Chi-square value was 144.28 (df=3, p=0.001) and is highly significant.

Question 3: Did you feel that it was preferable to learning western plays and reading material?

Table 3. Student responses to Question 3.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	4	1.51%
2. No, not much.	40	15.09%
3. Quite a lot.	100	37.74%
4. Yes, very much.	121	45.66%
Total valid responses 本题有效填写人次	265	

For Question 3, as shown above in Table 3, 83.4% of the responses were positive. The observed frequency can be seen in the table. The Chi-square value was 130.284 (df=3, p=0.001) and is highly significant.

Question 4: Did you feel it is important to use culturally relevant material that increased knowledge of Chinese culture and Chinese values?

Table 4. Student responses to Question 4.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	6	2.26%
2. No, not much.	22	8.3%
3. Quite a lot.	95	35.85%
4. Yes, very much.	142	53.58%
Total valid responses 本题有效填写人次	265	

Question 5: Does the use of this material better enhance the goals and progress of the nation?

Table 5. Student responses to Question 5.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	3	1.13%
2. No, not much.	27	10.19%
3. Quite a lot.	121	45.66%
4. Yes, very much.	114	43.02%
Total valid responses 本题有效填写人次	265	

For Question 5, as shown above in Table 5, 88.7% of responses were positive. The observed frequency can be seen in the table. The Chi-square value was 162.69 (df=3, p=0.001) and is highly significant.

Question 6: Did using this material make learning more effective?

Table 6. Student responses to Question 6.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	6	2.26%
2. No, not much.	28	10.57%
3. Quite a lot.	117	44.15%
4. Yes, very much.	114	43.02%
Total valid responses 本题有效填写人次	265	

For Question 6, as shown above in Table 6, 87.2% of responses were positive and the expected frequency for each response would have been 66.5. The observed frequency can be seen in the table. The total Chi-square value was 149.61 (df=3, p=0.001) and is highly significant.

Question 7: Were you more motivated to learn English using materials that were familiar?

Table 7. Student responses to Question 7.

Option 选项	Subttl 小计	Proportion 比例
a. No, not at all.	2	0.75%
b. No, not much.	34	12.83%
3. Quite a lot.	103	38.87%
4. Yes, very much.	126	47.55%
Total valid responses 本题有效填写人次	265	

For Question 7, as shown above in Table 7, 86.4% of responses were positive. The observed frequency can be seen in the table. The Chi-square value was 151.71 (df=3, p=0.001) and is highly significant.

Question 8   Would you like to see more material based on Chinese history, culture, and everyday topics included in the English learning materials in the future?

Table 8. Student responses to Question 8.

Option 选项	Subttl 小计	Proportion 比例
1. No, not at all.	3	1.13%
2. No, not much.	26	9.81%
3. Quite a lot.	77	29.06%
4. Yes, very much.	159	60%
Total valid responses 本题有效填写人次	265	

For Question 8, as shown above in Table 8, 89% of responses

were positive. For the null hypothesis to be true, the expected frequency for each response would have been 66.5. The observed frequency can be seen in the table. The total Chi-square value was 215.62 (df=3, p=0.001) and is highly significant.

The null hypothesis for each survey question is rejected. The results show that students were over-whelmingly supportive of the use of culturally relevant material for learning English.

4. Discussion and Conclusion

Motivation is well known to be an important factor in effective learning. In learning another language personal goals and targets are considered important especially for early engagement, but are considered insufficient to engage students in the day-today demands of learning a language. Relevance, personal and situational interest and affective arousal are three important elements in increasing learning performance (Hilgard, E. R., 1962; Krapp, 1999). Research has shown that the materials used can have a considerable influence on interests and hence motivation, especially the use of bilingual materials (Lorenzo, 2014).

The survey questions were designed to give an indication as to whether teaching English using more culturally relevant material increased interest and motivation and as a result enhanced learning. Questions 1, 3, 6 and 7 were relevant to this hypothesis and hypotheses (ii), (iii) and (iv) were supported. We were also interested in whether students thought that using relevant materials enhanced the national goals. Questions 2, 4, 5 and 8 were designed to elicit this information and again the responses were very positive, therefore hypotheses (i) and (v) were supported.

In conclusion, classes teaching English to Non-English major students used material that was thought to be more familiar and culturally relevant to students and therefore more interesting and motivating. The results were very clear in that students were very definite in the belief that they were. Whether they improved results was not specifically tested. Future research might use a control group using Western imported materials and a test group using Chinese materials to test this prediction.

However, the results were very unequivocal and research has shown that more highly motivated and interested students tend to do better and achieve higher results. As a result, it is recommended that teachers of English use the types of material as described in the research or develop new material that is more culturally relevant.

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Fostering Intercultural Competence in College Language Classrooms

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Abstract: China, with its great economic achievements, has enormous opportunities to have intercultural communication with the world. However, challenges due to communication barriers, such as cultural differences, stereotypes and prejudices, identity conflicts, language deficiency, and lack of interaction skills, may impede China's economic development and result in misunderstandings from other cultures. At the same time, preserving Chinese traditional culture and integrating socialist core values in education have been an ideological guide for Chinese teachers. This paper attempts to discuss how to cultivate students' intercultural competence in college language teaching by integrating Chinese culture into their English learning. Based on an understanding of the nature of Intercultural Competence, a survey was undertaken to investigate student's intercultural competence, and the paper suggests some implications from the investigation and makes recommendations to foster students' intercultural competence in language learning.

Key words: Intercultural Competence, college English teaching, English communication, Chinese culture, deverbalization

1. Introduction

Over the past several decades, China, owing to its opening up policy and its endeavors in economic reform, has made unprecedented economic achievements. Ever-increasing economic power, together with its growing political and diplomatic importance in the world, has brought the country enormous opportunities and challenges in intercultural communication. As more and more Chinese people travel abroad, study overseas, and get involved in international trade and other businesses, they have more opportunities to access and to understand the world and people from different cultures. However, challenges coming from communication barriers are also what Chinese people have been confronted with when communicating with other cultures. Such barriers as cultural differences, stereotypes and prejudices, identity conflict, language deficiency and the lack of interaction skills, if handled well, can be transferred as impetus to promote intercultural understanding between Chinese culture and other cultures.

In the Guidelines of College English Teaching, put forward by the Ministry of Education (2017), PRC., there are two goals for college English teaching. The first goal is that English, as the international lingua franca, should be used as an instructional tool to provide students with English language abilities in listening, speaking, reading, writing and translation to facilitate their academic and professional work in different areas. The second goal of English teaching is to foster the intercultural competence of college students, raising their awareness of language and cultural differences.

Reviewing language teaching in China over the past 40 years since China's reform and opening up, it was found that college English teachers, following Chinese educational policy in English learning and applying different teaching approaches and methods from home and abroad, have noticeably improved students' proficiency in listening, speaking, reading, writing and translation abilities. However, through the observation of the author's classrooms in the Advanced English Communication Course, it was recognized that Chinese college students are having more difficulties in Chinese-English interpreting than in English-Chinese interpreting. In fact, many Chinese students seem to feel at ease, for example, when interpreting ceremonial and informative speeches from English to Chinese, whereas they often lack the ability to interpret the proper names of Chinese festivals, explaining Chinese customs and transferring culturally-loaded Chinese expressions and idioms into English.

In some studies (Cong, 2000; Du & Liao, 2016; Guan, Su & Liu, 2018), these difficulties have been attributed to Chinese Culture Aphasia (CCA), defined as the inability to express Chinese culture in any language but the native language (Song & Bia, 2018). The emphasis on English learning in China has resulted in less attention being paid to the importance of preserving and promoting Chinese culture in education. Thus English learners in China, even though equipped with good English language abilities, fail to introduce into English the profound significance of the core of Chinese culture, on which the Chinese nation thrives.

Due to economic reform and opening up to the world, it is natural for Chinese people to be curious about beautiful landscapes, exotic traditions and customs, music, movies, books, and other cultural artifacts from other cultures. At the same time, the determination and endeavor to grow powerfully in economy, science and technology to catch up with the developed countries in a short period of time have pushed China eagerly toward learning information and knowledge from the world and other cultures. With the enthusiasm for English learning China has put English language learning in a vital position in education at all levels. It seems that Chinese Culture Aphasia cannot be excluded from being at least partially responsible for the students' deficiency in fluently expressing their native culture in English, yet more research and studies should be done to understand what has impeded Chinese students from expressing their native culture fluently and efficiently in English.

This paper attempts to investigate Chinese college students' intercultural competence generalized from students who study the Advanced English Communication Course, who are the subjects of the study. It aims, through the investigation, to provide some suggestions for the language interpretation instructions.

2. Understanding the Nature of Intercultural Competence

Linguistically, the word of 'competence' became famous when Chomsky (1965) analyzed the distinction between 'competence' (knowledge of the language) and 'performance' (the use of the language). Later the word became associated with 'communicative competence' (Hymes, 1972). Currently the word is often applied as in grammatical competence, sociolinguistic competence, discourse competence, and strategic competence etc. (Canale, 1983, pp. 9-10).

In intercultural communication studies, competence, according to Spitzberg and Changnon (2009), is diverse in meaning. It can be interpreted as understanding the messages from two sides in the interaction; or as developing a relationship among interactants through interactions; or as a sense of satisfaction from communication or relationship development; or as behaving appropriately in the acceptance or assimilation of other cultures. Therefore, any consensus in defining 'Intercultural Competence' is difficult.

In the broadest sense, Intercultural Competence (IC) refers to the ability to achieve effective intercultural communication. In other words, it is an individual's abilities to understand, think and act appropriately while communicating and working with people from different cultural backgrounds. (Leung, Ang, & Tan, 2014).

In the narrow sense, Intercultural Competence is interpreted differently by scholars according to various models. Spitzberg and Changnon (2009) divided the models into five types including compositional, co-orientational, developmental, adaptational, and causal path models. As developmental models (e.g. Bennett, 1986) and adaptational models (e.g. Kim, 1988) are mainly related to immigrants and students studying overseas, they are not considered

as theoretical underpinnings for investigating Chinese students' intercultural competence in this paper and are therefore absent from the following literature review.

Three influential compositional models are reviewed in this paper: Hamilton's Intercultural Competence Component Model (1998), Ting-Toomey and Kurogi's Facework-Based Model of Intercultural Competence (1998), and Deardroff's Pyramid Model of Intercultural Competence (2006).

In the Intercultural Competence Component Model (Hamilton 1998), Intercultural Competence (For Fig. 1 refer to Appendix 1) is composed of three elements: attitudes, knowledge and skills. Each element also contains three sub-components such as awareness, understanding and appreciation. It is expected that on the attitude element (or motivation as proposed by Spitzberg & Changnon, 2009), the interactants value aspects of their own cultural groups, such as risk-taking, group equality and life experience in enhancing the role of cross-cultural interaction and ethno-relative values. On the knowledge element, being aware of one's own cultural identity, as well as similarities and differences across cultures, the interactants obtain the knowledge, appreciation and the influence of cultural differences on communication. The co-function of attitude and knowledge help to facilitate the skills of awareness, understanding and appreciation.

This model shows its merits in including attitudes and knowledge, the two components which have been incorporated in several other models.

Ting-Toomey and Kurogi (1998) mentioned four dimensions in the Facework-Based Model of Intercultural Competence: knowledge, mindfulness, facial expression competence criteria, and interaction skills (For Fig. 2, refer to Appendix 2). Mindfulness, depicted as being mindful of reflexivity, openness to novelty, multiple visions, analytic empathy and creativity, emphasizes, together with mindfulness in interaction skills, the cognitive, behavioral and outcome factors in intercultural communication. Furthermore, the knowledge element demonstrates the importance of cultural differences in individualism and collectivism, power distance, and different facial expressions. Incorporating socio-linguistic elements of facial expression, such a model is conducive to second/foreign language teaching.

Employing a Delphi methodology, Deardorff (2006) developed her Pyramid Model of Intercultural Competence and defined Intercultural Competence as the "ability to communicate effectively and appropriately in intercultural situations based on one's external and internal outcomes, intercultural knowledge, skills, and attitudes" (Deardorff, 2006, p. 249). Deardoff's model drew on the conceptual perspectives and theories of 23 intercultural experts on the definition and components of Intercultural Competence. In this model, the attitudes, knowledge, and skills ideally lead to an internal outcome that consists of adaptability, flexibility, an ethno-relative perspective and empathy. Based on the co-ordination of the three-lower layers of the pyramid, the external outcomes demonstrate in certain degrees

the interactants' effective and appropriate behaviors. Deardoff's model is extremely influential as it proposed not only attitudes and knowledge, but also the idea of empathy and ethno-relativism of cultures. (For Fig. 3, Deardoff's model, refer to Appendix 3)

In intercultural studies, co-orientational models have merits as they include behavior as a main component. In Byram's Intercultural Communicative Competence Model (2009, p. 323), intercultural communicative competence consists of communicative competence and intercultural communicative competence (For Fig. 4, refer to Appendix 4). The communicative competence is reflected through linguistic competence, sociolinguistic competence, and discourse competence. In terms of Intercultural Competence, there are five elements: intercultural attitudes, knowledge, skills of interpreting and relating, skills of discovery and interaction and critical cultural awareness.

Although Byram's model has taken Intercultural Competence as a subpart of Intercultural Communication Competence, this model sees language proficiency an important part. In addition, the model includes the behaviors of discovery and interaction. Most important of all, critical cultural awareness was considered central to intercultural competence, which is important for students to integrate knowledge, attitudes, and behaviors.

In the causal path models, the Model of Intercultural Communication Competence proposed by Arasaratnam (2008) (For Fig. 5) stresses cultural empathy and global attitude, which conforms to the Guidelines of College English Teaching in China. Furthermore, the model also includes the component of 'experience', referring to the importance of behavior.

Based on the compositional models, co-orientational models, and the causal path models, Shen and Gao (2015), Zhang, Yu and Shen (2018) proposed two other Intercultural Competence models with Chinese adaptations.

Shen and Gao's model, the Integrative Model of Knowing-and-Doing, incorporates Deardroff's Pyramid Model of Intercultural Competence, Byram's Model, and the famous Chinese philosopher Wang Yangming's philosophical ideals that knowledge comes not only from the books, but also from moral and ethical conventions and philosophical thoughts. The model consists of six parts: knowledge, awareness, critical thinking, attitudes, skills and strategies (For Fig. 6, refer to Appendix 6).

Zhang, Yu and Shen's model (2018), the Assessment Inventory of Intercultural Competence, proposed three basic elements and ten sub-components in assessing Intercultural Competence (For Fig. 7, refer to Appendix 7).

The inventory comprises cognitive knowledge, affective attitudes and behavioral skills. General cultural common sense in cognitive knowledge refers to concepts and theories in intercultural communication, such as culture icebergs, stereotypes, and identity. The affective attitudes include self-awareness, identity, global vision and international understanding. Self-awareness can be understood as two aspects: for one thing, an individual is capable of reflection

and is aware of his or her role in a certain cultural group; for another, the individual can discover the interrelations between his or her behavior and his or her own cultural identity. The native country identity is displayed by an individual's understanding, approval and obedience to the state system, core values and ethnic cultural traditions. Such an identity can ensure an individual takes a positive attitude in intercultural communication. Global vision reflects one's willingness to transcend his or her own culture and take a comprehensive view of global issues and take opportunities in global competition. International understanding can help an individual have a dynamic view of the development of human civilization.

Behavioral skills can be displayed through an individual's performance in communication, dealing with conflicts and self-monitoring in intercultural communications.

The literature review of the nature of Intercultural Competence has shown that there is no consensus for the definition of Intercultural Competence. In this paper the broad definition of Intercultural Competence is accepted where, in interactions, the interactants from two sides are trying to interact "appropriately" and "effectively"; furthermore, as most researchers and scholars have agreed, there are three components Intercultural Competence——knowledge, attitude and behavior, this study will analyze the students' intercultural competence from these three aspects.

In this paper, 'Intercultural Competence' in its capitalized form is used for the concept, while 'intercultural competence' is regarded as the concrete abilities of students in their language learning practice.

3. Investigating Chinese College Students' Intercultural Competence at the Advanced English Communication

As an instructor in the Advanced English Communication Course, the author's first concern was to understand the students' needs for the course, their language proficiency and their degree of intercultural competence. The Intercultural Competence Questionnaire included in this paper was taken from the 'Wenjuan'website, a professional website for surveys. (https://www.wenjuan.com/lib_detail_full/561f63f5f7405b533c2cfc98).

The questionnaire, used a 5-point Likert Scales (1 as the least acceptable to 5 as the most acceptable), consisted of 29 items, listed under three headings: cognitive knowledge, affective attitudes and behavior skills. All the items were written in Chinese to ensure students had few difficulties understanding each item. 64 junior college students from the Advanced English Communication Course completed the questionnaire. The students were from three different Majors: Journalism, Finance and Accounting at the Beijing International Studies University (BISU).

Advanced English Communication is a two-semester teaching program to non-English major junior students at BISU. The program starts at the beginning of the second semester of the junior year and finishes at the end of the first semester of the senior year. The goal of

the program is to familiarize students with some basic techniques in consecutive Chinese-English and English-Chinese interpreting so that they can develop interpreting proficiency for general purposes, such as in Liaison and Escort Interpreting, interpretation of conference speeches, interpreting in business negotiations, in education forums, in cultural exchanges, in tourism, in interviews, etc.

As the questionnaire taken from the 'Wenjuan' website did not specify the categories the Items may fall into, the 29 items were grouped under the three headings: cognitive knowledge, affective attitudes and behavioral skills.

Table 1(Refer to Appendix 9) is a descriptive analysis of students' intercultural competence of knowledge. The average scores of Chinese college students' knowledge of culture in English-speaking countries (Item 1-7) ranged from 2.44 to 3.11, which showed that Chinese students are weak relatively in this aspect.

There were 11 items under the second heading; attitudes (For Table 2, refer to Appendix 10). Among the 11 items, the average scores on Items 9, 17, 18,19 and 20 were all greater than 3.5, and Item 17, 19, and 20 were closer to 5, the highest point being the most acceptable. These scores displayed Chinese students' strong openness, tolerance and flexibility towards other cultures. Items 23 to 25 were about ethno-centric and ethno-relative views of the world. On Item 23, half of the respondents didn't view Chinese culture as superior to others; as to Item 24 and Item 25, on attitudes towards social interactions, more than 70 percent of respondents were against holding stereotypes or prejudice against people from other cultures. Therefore, the three items displayed Chinese students' ethno-relative views of the world. As the three items used Chinese culture and Chinese people as the referents for comparisons, the low scores of 2.28, 1.77, 1.73 showed that most Chinese students hold positive ethno-relative views of the world. Items 26, 27and 28 were related to respondents' self-awareness of their feelings in interactions. Item 26 and Item 27 were consistent with the other items on attitudes, implying that students are quite confident and open to interaction. For Item 28, nearly half of the respondents showed their concerns about not being able to understand the messages from the speakers, which repeatedly verifies students' reservations about their deficiency in knowledge.

Under the third heading, Behavioral skills (For Table 3, refer to Appendix 11), most of average scores were high, which indicated that respondents are equipped with behavioral skills. They are trying to cooperate with others and show empathy. In addition, they use behavioral skills to help them deal with conflict and make positive and comprehensive evaluations of intercultural communication.

4. Implications of Intercultural Competence Study for the Language Interpretation Instructions

Students' deficiency in knowledge of other cultures, illustrated by the results of the survey mentioned in the third part of the paper,

may partially explain why Chinese students have difficulty in expressing native culture in English. Often what Chinese students express in English, or in so-called Chinglish, doesn't conform to the manner with which English native speakers express their ideas. Therefore, to facilitate students expression of their native culture confidently, appropriately and effectively in the Advanced English Communication Course, or in interpretation, the author argues that the pedagogical instructions should be theoretically supported not only by theories from Intercultural Competence, but also by principles of Second Language Acquisition and interpretation.

4.1 Second Language Acquisition and Intercultural Competence in the Advanced English Communication

Kumaravadivelu (2001) cataloged 'possibility, feasibility, and practicality' in language teaching. In other words, he meant that teachers should think about whether the teaching approaches, the design of the teaching content and the procedures to implement the teaching content were possible, feasible and practical in certain kind of educational and social context.

In 2016, Chinese President Xi called for the use of Chinese ideological thoughts as guidance in China's universities and insisted the core values of socialism be integrated into university education. (http://www.xinhuanet.com//politics/2016-12/08/c_1120082577.htm). In this social and educational context, at the Advanced Communication Course, more elements of Chinese culture and the core values of socialism should be integrated with attitudes and behaviors of intercultural competence into classroom instructions. Therefore, in material selections, the author should select those materials related to the contemporary issues in China, such as China's economic development and international co-operation, "One Belt, One Road" Initiative, China's environment protection, scientific and technological innovation, educational development, China's culture, tourism and sports. Accordingly, more time needs to be allocated to interpreting activities with themes on China and Chinese culture.

In accordance with the interactional view of language, a competent speaker should have a good mastery of the language code, appropriateness of utterances with respect both to meaning and form, a mastery of how to combine grammatical forms and meanings to achieve unity of a spoken or written text, and strategic competence to compensate for breakdowns in communication through verbal and non-verbal communication strategies so that they can make communication more effective (Canale, 1983). Furthermore, in language learning, teachers should incorporate four instructional components, i.e., a structure-functional component, sociocultural component, experiential component and the component of learning-how-to-learn (Stern, 1983).

Pedagogically, in the Advanced English Communication Course, students will be expected to submit, in 3 or 4 people teams, a video of consecutive C-E and E-C interpreting work themed with Chinese developments in different ways. The theme-based video work is designed to trigger students' identity with their native country. In

addition, the design of the video content, the selection and the compiling of suitable materials, and the interaction of students with each other in English, can not only improve students' competence of language, but also foster their intercultural competence in knowledge, attitude and behavioral skills.

4.2 The Interpretive Theory and intercultural competence in the Advanced English Communication Course

According to the Interpretive Theory (Seleskovitch & Lederer 1984, p.185), Interpreting is not a straightforward transcoding process from the source language to the target language, but a process where an interpreter needs to go through three phases of: understanding the source language, deverbalization and re-expression of the sense of the source language in the target language (For Fig. 8, refer to Appendix 8). In other words, an interpreter gets source language input (or SL input), deverbalizes it based on the sense, and reformulates the sense to form target language output (or TL output). The process of transcoding from SL to TL is then achieved.

4.2.1 Different thinking modes of English and Chinese and their linguistic differences

With different origins, English and Chinese are considered to be two different language systems. Mainly the differences in the two languages come from their different thinking modes and are reflected linguistically at discourse, syntactic and lexical levels.

Chinese people's way of thinking is profoundly influenced by such religious and philosophical systems as Confucianism and Taoism. Traditionally, the Chinese take human beings as the center of the universe and advocate harmony and unity of humankind with the nature. The Chinese look at the things in the world intuitively. Believing in collectivism, they tend to express their emotions and opinions subjectively by using metaphor, symbols and analogy implicitly and indirectly. Therefore, their thinking modes are subjective, circular and image oriented. Also, the preference of Chinese people's going from particular to general, from infinity to finiteness, from big to small, and making independent parts into a whole indicates that Chinese people's synthetic thinking is a unity (https://www.cchatty.com/Chinese-and-English-Different-Thought-P atterns-g-100304).

Unlike Chinese culture, Western culture and philosophy regard nature as a cognitive object. They look at things objectively, rationally, logically, and analytically. In communication, westerners are used to talking on the topic at the beginning so as to attract the attention of listeners or readers. They tend to speak their opinions in a straight-forward manner and think in a linear way. Therefore, their thinking mode is also abstract, analytic and individualistic. (https://www.cchatty.com/Chinese-and-English-Different-Thought-P atterns-g-100304).

The differences in thinking modes have stressed that in consecutive interpreting, especially in C-E interpretation, the interpreters should be aware that the reformulation of SL input should be done in an English way of thinking.

Hypotaxis and parataxis are contrary to each other in meaning. Hypotaxis means coordination or subordination of sentences. (https://literarydevices.net/hypotaxis/) As native English speakers are good at analytic thinking, conjunctions in English are used more frequently to link ideas together. On the contrary, Chinese emphasizes parataxis. At the discourse level, Chinese sentences are connected by internal correlations semantically. There is not much external connections among sentences. At the sentence level, conjunctions are seldom used to link ideas together.

Example 1:

丝绸之路的历史可以追溯到公元前二世纪，当时一名中国官员、朝廷的使者张骞沿着这条连接亚欧两大洲的贸易通道出使西域。这条通道源于长安城，即今日的西安，一路穿越陕西省、甘肃省境内的河西走廊、新疆的塔里木盆地、帕米尔山区、阿富汗、伊朗、伊拉克以及叙利亚，最后抵达地中海东岸，全程7千公里，其中4千多公里的路段位于中国境内。(Mei, 2010, p. 193)

In Example 1, taken from the textbook of "An Intermediate Interpretation Course", there are altogether two sentences in the paragraph. "当时" (meaning 'at that time' literally) is used as an adverbial phrase to link the two parts in the first sentence, yet it is not a conjunction as in English. The first sentence can be interpreted as 'The history of the Silk Road can be traced back to the Second Century B.C. when a Chinese official, the royal court envoy Zhangqian went along the trading route connecting the two continents of Asia and Europe to the West Territory (western countries)' (Mei, 2010). In this English sentence, 'when' is used as an adverbial conjunction to ensure coherence.

In the second Chinese sentence, the meaning is linked through spatial and time relationship within the sentence, such as the words of '一路' ('all the way' in English), '最后' ('finally, at last' in English) and '其中' ('其' as 'it' in Chinese, '中' as 'in or middle' in Chinese, meaning 'among which, in which ' in English) serves as an adverbial phrase in Chinese, yet in English translation, the word should be treated as a conjunction to link the sentence. The sentence can be interpreted into English as: 'Starting from Chang'an City, today's Xi'an, the Silk Road went through Shan'xi Province, the Hexi Corridor in Gansu, Tarim Basin in Xinjiang, Pamir Mountains, Afghanistan, Iran, Iraq, and Syria, arriving eventually at the eastern shore of the Mediterranean, covering in total seven thousand kilometers, among which more than 4 thousand kilometers were in China.' In this English sentence, we can see the use of 'Starting from Chang'an City', 'arriving eventually at the eastern shore of the Mediterranean', 'covering in total seven thousand kilometers' and 'among which more than 4 thousand kilometers were in China' work as subordinated parts in the sentence.

Through analyzing the use of parataxis in Chinese and hypotaxis in English, we can see the language differences coming from different thinking modes. Therefore, in interpreting, students should be aware of the cultural differences and cultivate their intercultural competence.

4.2.2 Awareness-raising of Intercultural Competence through

parallel text analysis

To achieve the effect of better comprehensibility of C-E interpretation and successful interaction, it's advisable for students to do analysis through the use of some parallel texts. For example, English and Chinese passages with similar themes. By analyzing the different uses of language at discourse and syntactic levels, and by discussing employing different interpreting strategies to convey the message, teachers can foster students' intercultural competence.

Interpreting, an instantaneous activity essentially, involves quick responses from the interpreters, and the short-term memory span containing information also means that the information may be quickly lost while interpreters are processing SL input. Using Example 2 as a parallel text to work out the frame, the interpreters can quickly learn to reproduce the meanings from Example 3 in English.

Example 2 is an English introduction of 'New York City. (Mei, 2014, p. 173) In introducing a place, some certain structures can be used, such as '... composed of...', '...located on..., covering....'.

Good morning, everyone! Welcome to New York City. I am Peter, the tour guide today. We are now on our way to Manhattan. Well, you know, New York city is composed of five boroughs: Manhattan, the Bronx, Brooklyn, Queens, and Staten Island. Manhattan is located on the Manhattan Island, covering about 58 square kilometers. It is taken as the symbol of New York City.

Example 3 is a piece of Chinese text introducing one famous mountain in China, Mount Tai.

泰山地处我国山东省的中部，绵延 200 多公里，其巅峰位于泰安市北面，海拔 1545 米。登临泰山需走九曲十八盘的路程，沿途可饱览绚丽风光，观赏不同风格的古代建筑（Mei，2009，p. 94）。

Through the parallel text of New York city, the interpreting work on Mount Tai can be this way: 'Mount Tai is located in central Shandong Province, stretching over 200 kilometers, with its peak in the North from Tai'an city and at an altitude of about 1545 meters above sea level. To climb the top of Mount Tai, we will follow zig-zagging and tortuous paths, along which we will enjoy spectacular views of the mountain and appreciate the ancient architectural works of various styles'(Mei, 2009, p.109).

4.2.3 Cultivating intercultural competence through deverbalization of culturally-loaded Chinese expressions

A closer look at Chinese and English passages on Mount Tai displayed above can also show students how, through intercultural competence, to deverbalize SL input to create appropriate messages in English. For example, "九曲十八弯" in Chinese. Literally in Chinese, "九" means "nine", "十八" means "eighteen", "曲"and "弯" refer to "twists and turns", so literally the phrase reflects Chinese people's thinking in images, meaning "nine twists and eighteen turns". However, essentially the phrase means the roads in Mount Tai are zig-zagging and tortuous. An appropriate and effective interpreting strategy used here is deverbalization, translating the phrase with its essential sense, following English way of thinking.

Deverbalization is a strategy often used when the sense is more important than the literal meaning (Seleskovitch & Lederer 1984). In communication, Chinese people prefer to use slang, idioms, four-character phrases, proverbs and quotes from famous Chinese philosophers, poets and writers, etc. Culturally-loaded words are very difficult for students to handle in interpreting, especially when interpreting involves making quick responses. In fact, many students are stuck on words loaded with Chinese cultural elements. They feel defeated and frustrated at finding an appropriate expression. Therefore, teachers, while instructing, should give students time to think and discuss meanings by deverbalization. By focusing on the sense of idiomatic expressions in their mother tongue, students will find C-E interpreting work a bit easier.

Example 5 comes from the keynote speech delivered on Dec. 16th, 2015 by President Xi Jinping at the Second World Internet Conference. (Jiang 2020, p. 20)

互联网让世界变成了"鸡犬之声相闻"的地球村，相隔万里的人们不再"老死不相往来"。可以说，世界因互联网而更多彩，生活因互联网而更丰富.

Through deverbalization, President Xi's speech can be understood as 'The Internet has turned the world into a global village where communication is no longer affected by geographic distance. In fact, the Internet has given us a more colorful world and a richer life.'

"鸡犬之声相闻"('ji quan zhi sheng xiang wen' in Chinese pinyin) literally means 'the sounds of chickens and dogs can be heard'). "老死不相往来" ('lao si bu xiang wang lai' in Chinese pinyin) means 'there is no contact until the death' literally in Chinese. Both two Chinese expressions are idioms. In terms of the English mode of speaking, Xi's words essentially mean that the Internet has shortened the geographic distance and makes communication much easier. Therefore, the two expressions of "鸡犬之声相闻" and "老死不相往来" (laosi buxiang wanglai) can be deverblized simply as 'communication'.

In interpreting, deverbalization demands an interpreter's good command of linguistic proficiency and intercultural competence. Teachers should encourage students to attain acute intercultural competence by being exposed extensively to Chinese and English discourse and making analytic comparisons of the two languages.

5. Conclusion

Globalization has given the world enormous opportunities to learn about different cultures. Globalization has also aroused the world's sensitivities around intercultural communication and caused many countries concerns about protecting their cultures. While preserving Chinese culture and educating Chinese people, China equally hopes to let Chinese culture become known to the world and to know the cultures from other countries. Chinese people, with a good command of intercultural competence, can create opportunities for intercultural understanding and contribute to the world with a shared community in the future. Therefore, it is essential for

language teachers to be aware of their duty to foster students' intercultural competence through language instruction.

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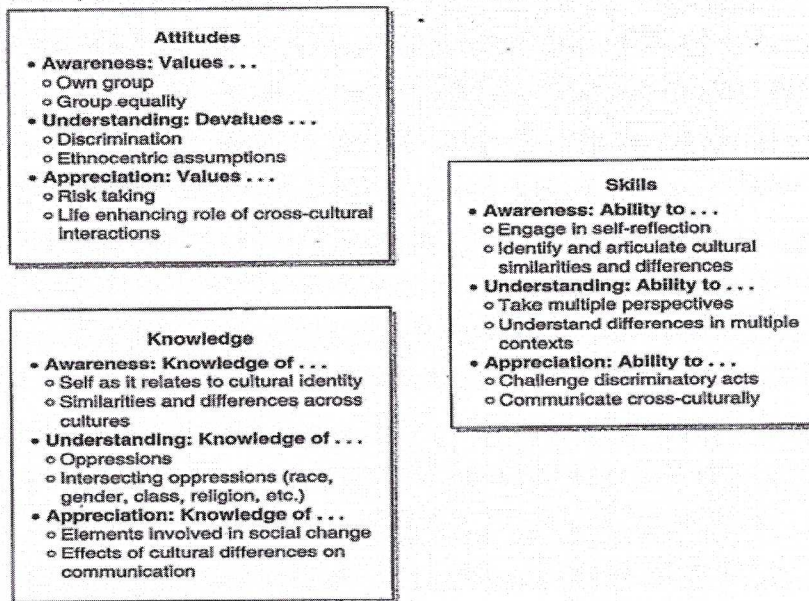
Appendix 1

Fig. 1 Intercultural Competence Components Model (Hamiltion et al., 1998, excerpted from Spitzberg & Changnon, 2009, p. 11)
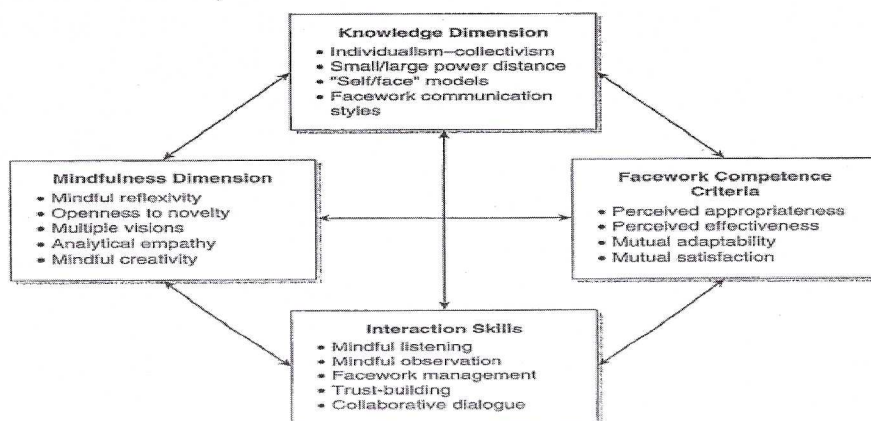
Appendix 2

Fig2: Facework-Based Model of Intercultural Competence (Ting-Toomey & Kurogi, 1998, excerpted from Spitzberg & Changnon, 2009, p. 12)

Appendix 3
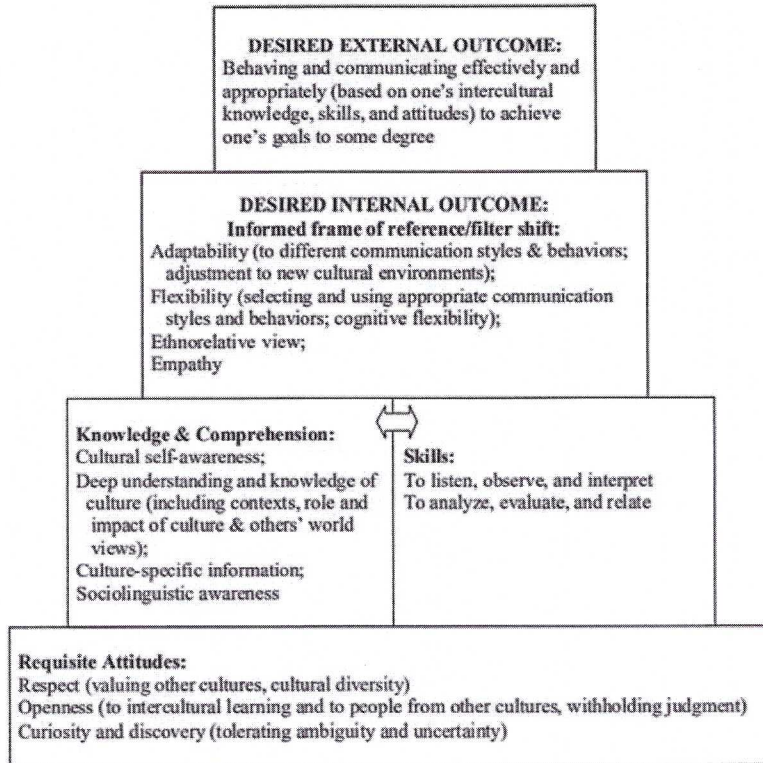
Fig 3 Deardroff's Pyramid Model of Intercultural Competence (Deardof. 2006, p. 254)

Appendix 4
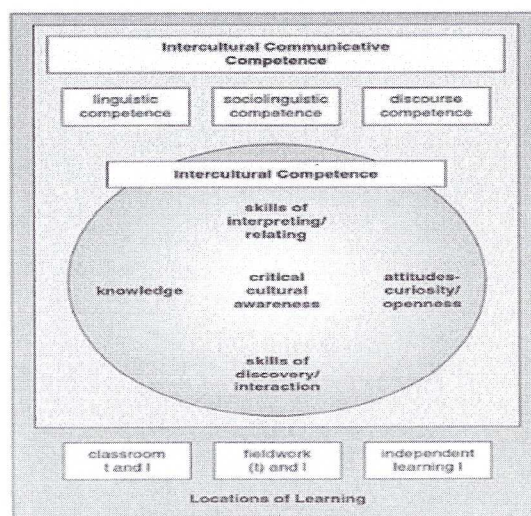
Fig. 4 Byram's model of Intercultural Communicative Competence (Adapted from Byram, 2009, p. 323)

Appendix 5

Fig. 5 Model of Intercultural Communication Competence (Adapted from Arasaratnam, 2008)

Appendix 6

Fig. 6 The Integrative Model of Knowing- and- Doing (Adapted from Shen & Gao, 2015, p. 15)

Appendix 7

Fig. 7 Assessment Inventory Model of Intercultural Competence (Adapted from Zhang, et. al., 2018, p. 55)

Appendix 8

Fig. 8: The triangular model of interpreting

Appendix 9

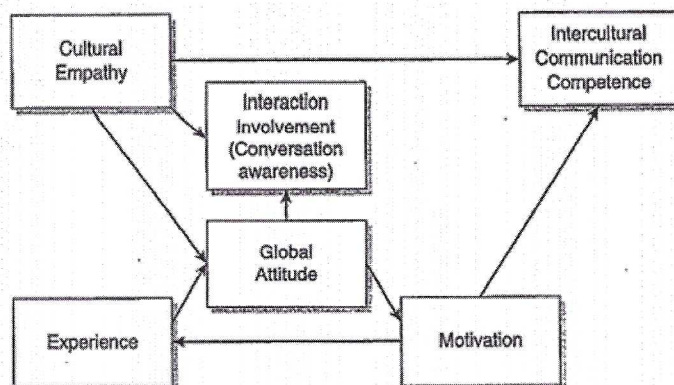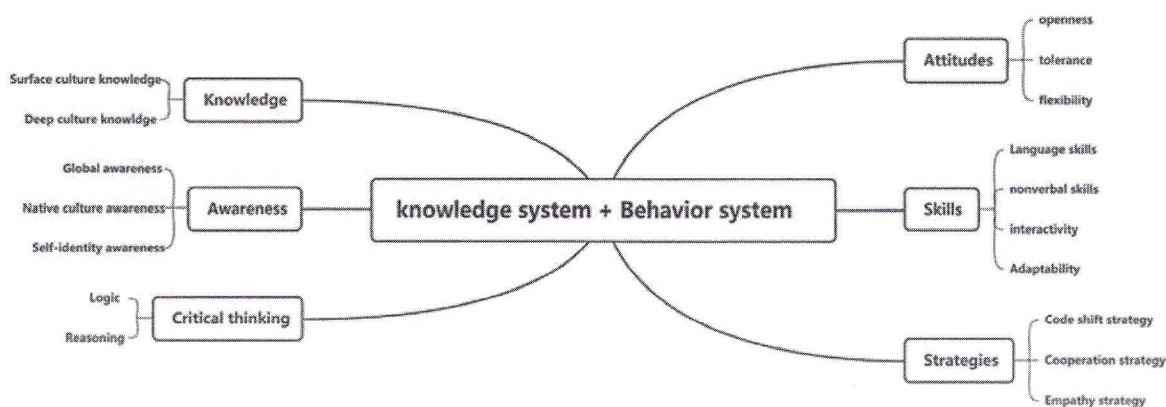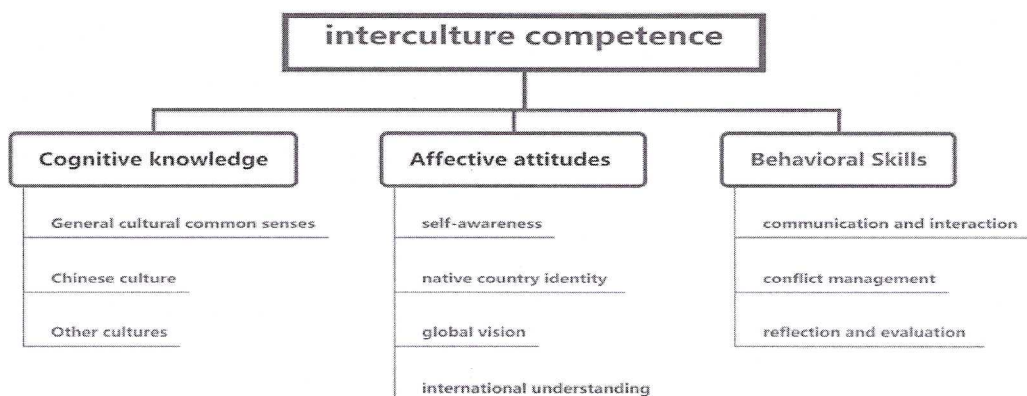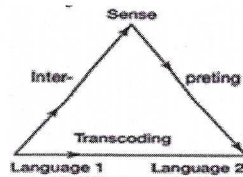| Questionnaire Items on Knowledge	Percentages of students and average scores					
I understand...of English-speaking countries.	1	2	3	4	5	Average scores
1. History and geography	6.25%	35.94%	32.81%	18.75%	6.25%	2.83
2. Cultural conventions and literature knowledge	3.12%	34.38%	40.62%	20.31%	1.56%	2.83
3. Social conventions (e.g. privacy, ethics knowledge)	4.69%	23.44%	46.88%	21.88%	3.12%	2.95
4. Religious conventions	15.62%	37.50%	35.94%	9.38%	1.56%	2.44
5. Socio-political and economic knowledge	7.81%	21.88%	45.31%	20.31%	4.69%	2.92
6. Nonverbal communicative knowledge (e.g. body language)	4.69%	39.06%	35.94%	18.75%	1.56%	2.73
7. The outlook on life and of lifestyles	3.12%	21.88%	40.62%	29.69%	4.69%	3.11

Table 1: Descriptive analysis of students' intercultural competence on knowledge

Appendix 10

Attitudes	Percentages of students and average scores					
	1	2	3	4	5	Average scores
9. I like to acquire cultural and intercultural knowledge.	1.56%	3.12%	18.75%	48.44%	28.12%	3.98
17. I am interested in understanding the differences in values and lifestyles between China and other cultures.	0.00%	0.00%	14.06%	32.81%	53.12%	4.39
18. I am willing to adjust my behavior by reflecting on the cultural differences.	0.00%	0.00%	23.44%	46.88%	29.69%	4.06
19. I like to interact with people from different cultures.	0.00%	1.56%	9.38%	43.75%	45.31%	4.33
20. I am willing to cultivate my interest in music, art or sports from other cultures.	0.00%	0.00%	10.94%	39.06%	50.00%	4.39
23. China is a country with more than 5000 years of history, so Chinese culture is superior to cultures from English-speaking countries.	39.06%	15.62%	31.25%	6.25%	7.81%	2.28
24. People from English speaking countries like to go Dutch, so they are not as generous as Chinese people.	57.81%	18.75%	15.62%	4.69%	3.12%	1.77

25. People from English speaking countries seldom invite friends to their homes, so they are not as hospitable as Chinese people.	57.81%	21.88%	10.94%	7.81%	1.56%	1.73
26. When communicating with people from English-speaking countries, I feel nervous and scared.	14.06%	18.75%	35.94%	20.31%	10.94%	2.95
27. When communicating with people from English-speaking countries, I am worried about making embarrassing mistakes.	14.06%	18.75%	35.94%	23.44%	7.81%	2.92
28. When communicating with people from English-speaking countries, I am worried that I cannot understand their messages.	6.25%	14.06%	23.44%	34.38%	21.88%	3.52

Table 2:   Descriptive analysis of students' intercultural competence on attitudes

Appendix 11

Attitudes	Percentages of students and average scores					
	1	2	3	4	5	Average scores
8. I'll try to avoid stereotypes and prejudice.	1.56%	0.00%	10.94%	29.69%	57.81%	4.42
10. In intercultural communication, I often use nonverbal communication, such as body language.	3.12%	4.69%	40.62%	35.94%	15.62%	3.56
11. I try to avoid offending others verbally or nonverbally.	0.00%	0.00%	7.81%	29.69%	62.50%	4.55
12. When there is misunderstanding, I'll negotiate with the other side so that both sides are satisfied.	0.00%	1.56%	6.25%	50.00%	42.19%	4.33
13. I will cope with cultural differences and achieve my goals through appropriate communicative strategies.	0.00%	1.56%	17.19%	46.88%	34.38%	4.14
14. I realize cultural differences and can evaluate objectively the behaviors of both sides.	0.00%	0.00%	10.94%	50.00%	39.06%	4.28
15. I can perceive potential cultural conflicts and try to avoid them.	0.00%	1.56%	14.06%	50.00%	34.38%	4.17
16. I'll try to avoid topics concerning privacy.	0.00%	0.00%	12.50%	40.62%	46.88%	4.34
21. I'll try to understand jokes and humor in different cultures.	0.00%	1.56%	9.38%	46.88%	42.19%	4.3
22. I will try to experience the other side's emotion to make interaction running smoothly.	0.00%	0.00%	15.62%	40.62%	43.75%	4.28
29. In intercultural communication, I respect and tolerate cultural differences, such as values and dining taboos.	0.00%	0.00%	12.50%	32.81%	54.69%	4.42

Table 3:   Descriptive analysis of students' intercultural competence on behaviors

A Study on Cultivation of "Mass Entrepreneurship and Innovation" Ability of Business English Majors

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Abstract: The continuous development of China's foreign trade, demands that enterprises increasingly require professional Business English language graduates with an innovative and entrepreneurial spirit and ability. However, currently the education model and training objectives of preparing graduates in China's higher vocational colleges does not meet the needs of the developing market. Based on a review by scholars' of training paths for Business English majors in higher vocational colleges, this paper focuses on the analysis of the important role of Business English students training in higher vocational colleges in "entrepreneurship and innovation" and puts forward a training path for cultivating more employable Business English graduates from higher vocational colleges.

Key words: Innovation and entrepreneurship, Business English, teaching model, professional training, higher vocational colleges

1. Introduction

The continuing development of the Chinese economy means that China plays an increasingly important role in the process of global economic integration. In order to meet the development needs of the country and enterprises, colleges and universities across China are required to adjust the direction and goals of educating professional graduates, and make the cultivation of high skilled professionals with innovative entrepreneurship and ability a major training goal (Jiang, 2017).

However, currently a problem exists in the teaching practices of higher vocational colleges, in implementing the goal of "mass entrepreneurship and innovation" education as it is separated from professional training and lacks coordination and development within professional education. In essence, mass entrepreneurship and innovation education and professional education in vocational colleges are in the early stages of integration. The employment rate of Business English majors from most vocational colleges is still relatively low, and it is hypothesized that it is due to the insufficient awareness of innovation and entrepreneurship of students to meet the current employment standards and requirements of enterprises (Yu, 2013). Therefore, in this context, the most important task of current higher vocational education reform is to study and implement a teaching model of integrating innovative entrepreneurship education and professional education, and to improve the comprehensive ability and core competitiveness of students.

In order to cultivate more comprehensive business English students in line with the market demand, Chinese scholars have conducted considerable research Business English training models in the context of innovation and entrepreneurship, which forms a large body of literature. For example, Li Guiyun addresses the model of "Entrepreneurship and Innovation" Education and points out that as one of the training subjects of higher vocational colleges, Business English courses need to integrate the present teaching concepts and a model of innovation and entrepreneurship education into the teaching practices. At the same time, it is necessary to adjust student training objectives, optimize the English business language curriculum, strengthen the make-up of the teaching teams, so as to ensure teaching quality and improve the competitive level of students (Li, 2019). Yang Fan emphasizes that the concept and implementation of the theory of "mass entrepreneurship and innovation" education in higher vocational colleges should be more extensive, which is required to meet the needs of the times (Yang,2019). This requires not only the upgrading of professional talent to meet the demand in most enterprises, but also urgently demands teaching reform and innovation in colleges and universities. Liu Yu argues that one of the main purposes for teaching reform and innovation of English business language programs in higher vocational education is to establish an employment oriented and capacity-based training model (Liu, 2016). Therefore, this paper analyzes the problems currently existing in the teaching practices of Business English in higher vocational education, and then it discusses how to adjust the training model of Business English professionals to suit the demands of market development and employment orientation.

2. The Important Role of "Mass Entrepreneurship and Innovation" Education in the Training of Business English Majors in Higher Vocational Colleges

2.1 Improving the employment rate of students

One of the fundamental purposes of the continuous popularization and deepening of "mass entrepreneurship and innovation" education is to improve the employment rate of students. From the perspective of educational theory, innovation and entrepreneurship teaching concepts and goals are employment oriented, which are consistent with the vocational teaching goals of higher vocational colleges (Wang, 2017). In the process of recruitment, enterprises have certain requirements for the provision of innovation consciousness, thinking and ability of candidates. In terms of the actual teaching practices, practical teaching of innovation and entrepreneurship provides students with opportunities and platforms to use their own innovation and entrepreneurship thinking in the learning process and provides an opportunity for the smoother employment of students. In the process of learning, students can become familiar with the nature of jobs in advance, improve the speed of adapting to the working environment, and then increase their core competitiveness in the process of employment (He, 2007).

2.2 Deepening the innovative higher vocational education

In the process of building entrepreneurship, innovative thinking and ability are essential elements. Therefore, the cultivation of an innovation spirit and ability is the focus of innovation and entrepreneurship education. At present, China is in the process of industrial upgrading and structural adjustment, and enterprises prefer innovative employees. The traditional "language knowledge + business knowledge" education theory and model of Business English students in higher vocational education lacks innovation in the teaching process, and is unable to cultivate students' innovation spirit and ability, and thus is unable to meet the needs of industry development. The concept of innovation and entrepreneurship education requires teachers and students to actively seek teaching methods to improve and train students' professional ability and innovation spirit throughout the process of higher vocational education (Wang, 2017).

2.3 Building a team of innovative and entrepreneurial teachers

In the teaching process, teachers are the most important part, and therefore play a very important role in innovation and entrepreneurship education. Hence, there is a need to constantly adjust and optimize the teaching structures of Business English majors, and build an innovative teacher team combining innovation ability and professional knowledge. In addition, teachers are also required to participate in basic level training of enterprises and professional training in innovation and entrepreneurship education. By constantly improving the innovation and entrepreneurship ability and diversity of the teachers' team, higher vocational colleges can

fundamentally solve the problem of the lack of entrepreneurial practice and innovation spirit in teachers (Yang, 2019).

3. The Training Path of Business English Majors under the Guidance of "Mass Entrepreneurship and Innovation" Education

3.1 Repositioning student training objectives

Based on the above literature review of the theory and practice of "Entrepreneurship and Innovation" education, the authors argue that with the continuous development and changes in industry, higher vocational colleges must carry out reform of student training models in order to cultivate comprehensive professionals that meet enterprise's employment standards. The traditional professional education model needs to be transformed into ability-based education guided by students' professional ability. The authors recognize that Business English is an interdisciplinary and comprehensive major. Students are exposed to not only English language knowledge, but also western culture. This introduces students to stronger innovative thinking and an exploration spirit. At this stage, the number of graduates provided by colleges and the demand for comprehensive professionals for industrial development do not match. The contradiction between the supply and demand of skilled Business English graduates and the market has become more prominent. As students are not able to get involved in the process of innovation and entrepreneurship in school, so they are afraid of the difficulties and failures of innovation and entrepreneurship after graduation. Therefore, the key point of teaching should be to cultivate students' comprehensive professional knowledge, ability and confidence to improve their suitability for employment and entrepreneurship.

3.2 Reforming teaching form and constructing reasonable curriculum

While reflecting on teaching reform, the authors acknowledge that the successful implementation of innovation and entrepreneurship in teaching needs the support of teachers. The skills to teach entrepreneurship courses should be required for Business English teachers. In the actual teaching process, Business English teachers need to make full use of the advantages of internet resources and select cases of successful entrepreneurs. Through the analysis of successful cases, students' entrepreneurial thinking and spirit can be cultivated. At the same time, students can improve their business skills by participation in business knowledge and entrepreneurship skills competitions, business negotiation activities, business planning and production and other activities organized by teachers. In addition, teachers should attach importance to the application of school-enterprise cooperative teaching and implement off campus practical training. In the process of teaching, the main carrier of innovation and entrepreneurship knowledge is the curriculum, which is also the best platform to carry out innovation and entrepreneurship teaching. The main purpose of including entrepreneurship courses in the curriculum is to enable students to

understand how to establish and manage enterprises and improve their practical operational capacity.

3.3 Setting up a scientific and all-round multi teaching evaluation system

After reviewing their teaching practices, the authors recognize that the best way to examine and assess the teaching effect of teachers is to test and evaluate them. Therefore, the establishment of a scientific and rational teaching evaluation system in higher vocational colleges can comprehensively assess the effectiveness of teaching. At the same time, it is an important basis for the adjustment of teacher training objectives. In the process of evaluation, it can guide students to cultivate the habit of attaching importance to the learning process and to promote the inner sense of achievement and satisfaction through practical activities. Higher vocational colleges should introduce a dual evaluation system for teachers at school and for part-time teachers from enterprises. In this process, the part-time teachers can evaluate the practical ability of students according to the actual workplace situations. According to the evaluation results of the part-time teachers outside the school, the full-time teachers in school assess the students' mastery of basic business knowledge, and then carry out targeted reform on the existing teaching content and methods.

4. Conclusion

In a word, it is a complex project to integrate innovation and entrepreneurship education with professional education. To cultivate more graduates with comprehensive development to meet the actual needs of the society, it is necessary for higher vocational colleges and relevant enterprises to cooperate and coordinate and to fully utilize their respective advantages. There is a need to integrate innovation and entrepreneurship education into Business English teaching and reform the teaching of Business English majors, to improve students' entrepreneurship abilities and qualities and opportunities for employment.

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An Empirical Study on Integrity Cultivation in College English Courses

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Abstract: Integrity is one of the most valuable virtues of the human beings, which is highly valued by Chinese people. The Chinese government has integrated integrity education programs into the national education system. This paper aims to investigate the feasibility of integrity cultivation in college English courses. In an empirical study based on the Content-Based Instruction, teaching practices were conducted, and the students' feedbacks confirm that through effective classroom design, it is feasible and effective to integrate integrity cultivation in college English courses. The findings of this study may provide some reference and enlightenment for the design of ethics cultivation activities in college English courses.

Key words: Integrity cultivation, college English course, Content-Based Instruction, an empirical study, China

1. Introduction

Integrity is the quality or practice of being honest and showing a consistent adherence to moral and ethical principles and values. Integrity is of universal value and it is upheld by people from the whole world. In China, integrity is a moral virtue greatly valued by the Chinese people. On the one hand, integrity is one of the core values of Chinese traditional culture. As a civilization with more than 3,000 years of history, integrity runs deep in the Chinese blood (China Daily, 2015). Confucius (Watson, 2007) emphasized integrity in his famous remark: "People should obtain their fortunes reasonably and properly through their labor, and not through fraudulence and cheating." On the other hand, to pool positive energy to realize the Chinese dream of national rejuvenation，The Communist Party of China issued guidelines for practicing core socialist values on Dec 23, 2013. Integrity is one of the twelve core socialist values and it is greatly cherished in contemporary China.

The UNESCO World Declaration on Higher Education for the Twenty-First Century states that one of the core missions of higher education is to train young people in the values that form the basis of democratic citizenship (UNESCO, 1998). In China's education system, schools and universities teach youth about integrity norms and values.

From the aspect of administration, the Chinese government believes that without such education programs it is difficulty to build a clean government. It has integrated such education programs into the national education system and developed policies accordingly. Efforts have also been made to ensure that standard teaching materials and curricula reflect the requirements of anticorruption and integrity education. China holds corresponding educational activities with distinctive themes in innovative forms (UNODC, 2010).

From the aspect of the college students, they shoulder the historical responsibility of the great rejuvenation of China and the responsibility of the era of socialist modernization with Chinese characteristics. They should constantly enhance their personality, improve their quality, actively develop themselves, and make themselves "social people", and people with both ability and political integrity required for the development of the country and the society (Bai, 2014).

This paper is a report on an empirical study in college English course with respect to cultivate the students' integrity. It argues that integrity education should be incorporated in the whole education system of college. It is recognized that college English course is an important compulsory course for most of the Chinese college students. It is of great significance to instill personality of integrity into them during the process of their foreign language acquisition. This study aimed to investigate the feasibility and effectiveness of integrity cultivation in college English course.

2. Literature Review

Content-Based Instruction (CBI) is "an approach to second language teaching in which teaching is organized around the content or information that students will acquire, rather than around a linguistic or other type of syllabus" (Richards & Rodgers, 2001, p.204). In other words, CBI involves integrating the learning of language with the learning of content simultaneously; here, content typically means academic subject matter such as math, science, or social studies. In CBI, the language is utilized as the medium for teaching subject content (Mohan, 1986). The language learning

objectives are achieved through content learning.

Specifically speaking, there are three main types of Content Based Instruction: the sheltered model, the adjunct model, and the themed based model. The sheltered and adjunct CBI usually occurs at universities in English L1 contexts. The goal of teachers using sheltered and adjunct CBI is to enable their ESL students to study the same content material as regular English L1 students. Sheltered CBI is called "sheltered" because learners are given special assistance to help them understand regular classes. Two teachers can work together to give instruction in a specific subject. One of the teachers is a content specialist and the other an ESL specialist. They may teach the class together or the class time may be divided between the two of them.

The adjunct classes are usually taught by ESL teachers. The aim of these classes is to prepare students for "mainstream" classes where they will join English L1 learners. Adjunct classes may resemble EPA or ESP classes where emphasis is placed on acquiring specific target vocabulary; they may also feature study skills sessions to familiarize the students with listening, note taking and skimming and scanning texts.

Theme based CBI is usually found in EFL contexts. Theme based CBI can be taught by an EFL teacher or team taught with a content specialist. The teacher(s) can create a course of study designed to unlock and build on their own students' interests and the content can be chosen from an enormous number of diverse topics (Davies, 2003).

The advantages of CBI are self-evident: learners are exposed to a considerable amount of language through stimulating content. Especially in theme-based CBI, complex information is delivered through real life contexts (theme) for the students to grasp easily. In theme-based CBI, key information is reiterated by strategically delivery at the right time and through situations compelling the students to learn out of passion.

It is apparent that college English course is a typical EFL course. The purpose of the instruction in this research is to cultivate the students' integrity and improve their language proficiency simultaneously, thus theme-based CBI is a proper and sensible choice.

3. Research Design

3.1 Research Question

This study investigated the feasibility and effectiveness of integrity cultivation in college English course. The students were to learn a text under the title of "The Real Truth about Lies" (DePaulo, 1999) in college English course. This text is an 18-paragraph-argumentative writing selected from Reader's Digest in the November 1999. The theme of this text is closely related with the notion of integrity. From the striking title to the very beginning's two integrity surveys, this text catches the learners' attention instantly. Furthermore, this text is written by an authoritative writer, thus it is persuasive. The author Professor Bella M. DePaulo is specialized in

Social Psychology.

In a journalistic style, the text starts with the results of two surveys, from which the author points out that telling little white lies is a common practice. Then she analyzes the reasons for telling such lies and predicts the consequences of telling white lies. In the open ending part, the author discusses whether lies are to be avoided at all costs. Three teaching objectives constitute the combination of integrity cultivation and foreign language acquisition. The teaching objectives of this text are as follows: to master some key vocabulary and difficult language points, to grasp the main idea of the text, master the author's writing style and make clear the structure of the whole passage, and to discuss the topic of lying and understand the real truth of lies.

From the learning material we can see that this empirical study is a typical theme-based CBI. The teaching objectives move from language ability trainings to integrity cultivation. In the process of discussions and analysis, the students' speculative ability is cultivated as well. Our research question is: Can integrity cultivation be combined with foreign language acquisition course? If yes, how should the process be arranged?

3.2 Research Subjects

The participants are 31 college students majoring in Tourism Management from the School of Tourism Management at Beijing International Studies University. They are sophomores and have learned English for about 10 years. They can understand moderately difficult articles and materials published in the English-speaking countries and express their ideas in general English. In other words, they are intermediate English learners. To investigate the feedback, the author also selected 4 focal students from the class. Detailed data are presented in the research procedure part.

3.3 Research Methods

To find out the feasibility and effectiveness of integrity cultivation in college English course, three research methods were adopted in this research. Questionnaire, the instrument of quantitative study, served as one of the main research methods in this study. Recordings of small group discussion served as the instruments of qualitative study in this research. Besides, this research adopted interview as the supplementary research method. Each of these three research methods is introduced as follows.

3.3.1 Questionnaire

The questionnaire utilized in this research is Satisfaction towards Integrity Cultivation in College English Course (see Appendix 2), which is used after this experiment.

This satisfaction questionnaire designed by the author consists of four dimensions, which are general attitudes towards integrity cultivation, benefits of integrity cultivation activities, attitudes towards the instructor and integrity internalization during the experiment. Each dimension has 5 items. There are 20 items in total. The questionnaire asks the participants to rate on a 5-point scale (1= Very Unsatisfactory, 2= Unsatisfactory, 3= Neutral, 4= Satisfactory, 5= Very Satisfactory). This questionnaire is completed by all the

subjects involved. 31 valid questionnaires are collected. The results of these two questionnaires are analyzed by SPSS 22.0.

3.3.2 Recordings of Small Group Discussion

Small Group discussion is a common class interaction activity in this university, therefore students are familiar with group discussion. In this integrity cultivation, many activities take place in small groups. According to Xu (2011), interaction strategy training improves students' overall participation and interactive participation. To make small group discussion in the class more effective, the researcher does small group interaction strategy training before this experiment. The training contents are based on the research results of Xu (2016), in which she put forward seven functions of peer scaffolding in Chinese English learning background. After being trained, students realize that effective group discussion would facilitate internalization of our target.

3.3.3 Interview

After the analysis of the results of the satisfaction questionnaire, the qualitative data is collected from the complementary interview with four open-ended questions. Questions in the interview can be divided into four categories: comments on integrity cultivation, comments on the group work, self-evaluation on integrity and comments on theme-based CBI. The collected answers are analyzed to find out the reasons and participants' thoughts towards small group discussion. Before each interview, the researcher asks the interviewee's permission for recording. All the four focal students agree to be recorded. These interviews are recorded and transcribed by the author.

4. Research Experiment

To test the feasibility and effectiveness of integrity cultivation in college English course, an empirical study is conducted. The traditional teaching focus of background information and long, complex sentences is still upheld. The research experiment is based on the routine teaching. The tenet of the combination design of integrity cultivation and the course is to merge integrity cultivation in the whole process of foreign language acquisition.

4.1 Integrity-Reinforcing Activities before Class

Above all, three integrity-reinforcing activities are conducted before class.

First, infuse integrity into the classroom culture. The teacher makes integrity the norm in the classroom. Expectations about academic integrity and the consequences of cheating are clearly articulated. Besides grades, the students are also rewarded for their integrity, hard work, determination, and respect for classmates. This kind of culture fosters integrity.

Second, develop a moral vocabulary. According to the International Center for Academic Integrity (ICAI), the five fundamental values of academic integrity are: Responsibility, Respect, Fairness, Trustworthiness and Honesty. Incorporate the teaching of these five values into the curriculum and help students use the vocabulary to discuss a variety of historical topics and current events.

Third, use quotes to ignite meaningful conversations. Famous quotes can be used as conversation starters, prompting students to reflect on topics related to integrity, moral development, and other attitudes that help them develop positive work habits and respectful relationships (Price-Michell, 2015). Quotes like: "Truth is beautiful, without doubt; but so are lies."(Ralph Waldo Emerson) and "Truth is completely spontaneous. Lies have to be taught." (Richard Buckminster Fuller Jr.) are introduced to the students before class.

4.2 Integrity-Reinforcing Activities in Class

It is a commonplace for the students to learn a text in the following 5 steps: Pre-reading Activities，Global Reading，Detailed Reading，Consolidation Activities，and Further Enhancement. Thus, integrity cultivation is embedded and combined with all these 5 steps.

In Pre-reading Activities，7 questions about lies are prompted: 1. If your good friend buys a new dress or a new mobile phone which you dislike intensely, and asks for your opinion about it, what will you say? 2. When do you think people lie? 3. Why do people lie? 4. To whom do people most likely to lie? 5. How would you feel if somebody lied to you for your own good? 6. What's your view of white lies? 7. Have you ever lied? These questions start from the daily life and gradually focus on the key issue of the text: "white lies". Step by step, these questions intrigue the students to consider integrity and have inner reflections.

In Global Reading, besides text and structural analyses, cultural background about Watergate scandal is introduced to the students. Later, the students have an in-depth discussion on the scandal. They realize that the infamous Watergate scandal involving President Richard Nixon dealt a major blow to the confidence Americans had in their nation and its values. It's a rather severe crisis of integrity.

In Detailed Reading, a series of text-based-questions about lies are asked to keep the students on the track of thinking about lies and integrity. Questions like "What does Professor Bella DePaulo's study indicate about lying?", "What, according to the author, would be the consequences of lying?", and "Are all white lies unacceptable? What is the yardstick of acceptable lies?" are asked and students have small group discussion to analyze and answer them. During the small group discussion, with consent of the students, the teacher takes some recordings for later analysis. These small group discussions may on the one hand be peer scaffolding in their study, on the other hand, can reflect the students' ideas on lies and integrity. The students are also encouraged to find out words, phrases, expressions or sentences to indicate the consequences of lies. Then the idea of integrity is echoing the content of the text.

In Consolidation Activities，the designs on vocabulary analysis, grammar exercises, translation exercises, exercises for integrated skills, oral activities, writing practice, and listening exercises are all closely related to the theme of integrity. It is not surprising that the students take the initiative to use the vocabulary, structure and point of views from the text to do the exercise and have further reflections.

In Further Enhancement, the students are put in the position of facing an integrity dilemma. With the supplementary reading "To Lie or Not to lie? —The Doctor's Dilemma", the duality of integrity is revealed to the students. After small group discussion on the topic of: "If you were a patient, would you like to know the truth that you would have only a few months to live?" and "If you were a doctor, in what way would you break the news to your patient?" They start to have a role-play and later a debate on this dilemma. From this enhancement, integrity is no longer a cold must-to-obey rule, but a globe with more than one facet. They students thus form a through and profound understanding of integrity

4.3 Integrity-Reinforcing Activities after Class

The students are encouraged to express themselves in their 300-hundred-word writing of "The White Lie: A Necessary Lubricant of Life or an Excuse?" While dishonesty and disrespect flourish in civil society, the students are also asked to find examples of how individuals stood up for our belief of integrity.

5. Results and Discussion

The experiment of integrity cultivation in college English course lasts for two weeks. After this experiment, we analyze Satisfaction towards Integrity Cultivation in College English Course, recordings of the students' small group discussion, and interviews with four focal students. Besides, the students take a quiz on their language acquisition as a routine teaching step.

5.1 Students' Feedback on Integrity Cultivation

5.1.1 Questionnaire of Satisfaction towards Integrity Cultivation

To learn about students' satisfaction to integrity cultivation in college English course, the author designed the Satisfaction towards Integrity Cultivation questionnaire. All the students participating in this experiment are involved in this investigation.

First, the reliability is examined by SPSS 22.0 after the satisfaction questionnaires are retrieved from the participants. Reliability is examined by using Cronbach's coefficient alpha. As shown in Table 5.1, all these items are above 0.70, which indicates that its reliability is above a commonly acceptable level.

Table 5.1 Reliability Statistics on the Satisfaction Questionnaire of Experiment Three

Cronbach's Alpha	N of Items
.918	20

To have a deeper understanding about students' thoughts on and satisfaction with the practice of integrity cultivation in college English course, questions with a 5-point Likert scale ask about participants' satisfaction from four perspectives and the responses are shown in Table 5.2 (Appendix 1). All together 31 copies of questionnaires are collected. Here are the results.

As it is shown in Table 5.1, the overall feedback of 31 students is good, for all the means of four dimensions are higher than 4.0.

Especially the feedbacks of Benefits of Integrity Cultivation Activities and Attitudes towards the Instructor are positive, which means the practice of integrity cultivation in college English course is successful. The means of these two dimensions are higher than 4.4. The standard deviations of these two dimensions are the lower than those of the other dimensions, which means the students' attitudes are much similar. However, the feedback on the dimension of experience of integrity internalization is lower than the other three dimensions, which means the students are not quite sure of their inner change in the aspect of integrity. The reasons for this may go into two possibilities: the internalization is a progressive, long process, and it's not as apparent as other changes; the students need more comprehensive cultivation and reinforcements to improve their integrity. Furthermore, the standard deviation of the internalization dimension is much higher than those of the other three dimensions, which indicates that the students hold varied attitudes toward the internalization dimension. The focal students' interviews echo this trend, too. This deviation of the standard deviation of the internalization dimension shows that integrity cultivation is not a uniform activity, and individual attention should be paid on varied subjects. Above all, these findings indicate that integrity cultivation in college English course is feasible and effective.

5.1.2 Interview Analysis

To investigate the students' concrete evaluations of this integrity cultivation experiment, the author adopted the semi-structured interview method which mainly focuses the following dimensions: comments on integrity cultivation during experiment, comments on the group work, self-evaluation on integrity improvement and comments on theme based CBI.

Four open questions are asked in the face-to-face interview by the author:

1. What's your general idea about this integrity cultivation in college English course?

2. Do you think the group discussion activities are effective?

3. Do you think this teaching practice helpful to improve your integrity?

4. Do you prefer the theme based Content-Based Instruction?

Four focal students are interviewed. Here are some of their answers in detail. The answers of the participants are translated into English and some typical answers are shown as below.

"I think this teaching practice is so good, because language learning without a real purpose is somewhat rootless". (S1-Q1)

"I love this form of study, for everyone including a Grade C student like me can have something to offer". (S4-Q1)

"The cooperation in the group discussion was alright. I can smoothly communicate with my group members though sometime I need to remind them to focus on the topic of integrity". (S2-Q2)

"I used to prefer study individually, but the group activities gradually arouse my interest because they help me understand others' ideas, sometimes even my own opinion". (S3-Q2)

"I think this teaching practice is very important for me to

reconsider my integrity and I will not tell white lies any more". *(S3-Q3)*

"I think it's not just college students should improve our integrity, the whole society should get involved in it, and only in that way, this teaching practice may make a difference". (S2-Q3)

"I do not regard it necessary to adopt this theme-based CBI all the time. Only for the proper topics we may have a try". (S4-Q4)

"I think the theme-based CBI is a promising trend in English teaching, on the one hand, we have learnt English for several years, so we have our own understanding of the teaching materials. On the other hand, I'd like to learn some practical knowledge while learning English. I hope more and more theme-based CBI may appear in my college English course". (S1-Q4)

As most of the integrity cultivation activities take place in group discussion, the author records the four students' performance in group work as well. The students' performances may also verify their ideas in the interview. The students' English level are roughly labeled according to their last semester's final exam and the quiz after this experiment. After the interview, the author rounds up the students' detailed feedback to the integrity cultivation activities.

Table 5.3 Basic Information of the Four Students' Interviews

	English Level	General Feedback	Performance During the Experiment
Student 1	High	Profound discussions	Always leads the discussion.
Student 2	Medium	Novel experience	Always provides opinions.
Student 3	Medium	Effective communications	Gradually participates actively.
Student 4	Low	Quite helpful	Talks much; the most active one.

According to these four students' self-evaluation and their comments on the experiment, the author gets the basic information of each students' detailed feedback and their feedback to the experiment. As for Student 1 who has the highest English level among the four students, she is a practical leader in her group, and her insight greatly influences other group members. Student 1 quite approves and enjoys this integrity cultivation activity. Student 2 always provides ideas and explains her understandings of integrity to her peers, and ways to improve the average integrity in the whole society. Student 2 deems this integrity cultivation activity as a novel experience and expects more similar activities. Student 3 is not talkative in the beginning, and he always acts as the listener. However, he gradually gets accustomed to the new activities and starts to share his ideas with group members. Student 3 thinks this practice is a good attempt and is much helpful in evoking the students' inner part. He admits that first of all, he thought integrity cultivation was not a must in college English course and he didn't expect to acquire much for he was very confident in his own integrity. After this two-week-experiment, he realizes integrity is of great significance in one's life. Student 4 has the lowest English proficiency among these four students. However, he is viewed as the one who contributes most to the group discussion. He is passionate and keen on expressing his idea. Student 4 admits that he benefits a lot from this activity, and he starts to reconsider his integrity and possible ways to enhance it.

5.2 Discussion

According to the results of questionnaire and interviews, it's apparent that integrity cultivation in college English course is helpful. From the teaching practice and students' feedback, the teaching design is accepted by the students, and the original teaching objectives have been achieved in three aspects: text knowledge, language ability and speculative ability. This empirical study concludes that the following teaching concepts and methods are effective:

Firstly, in terms of CBI, it is a proper and effective approach to cultivate students' speculative ability. With great interest and passion in the content, the students tend to organize and sum up the central idea and argumentation logic of the text spontaneously, which can help students to highlight the level of thinking. The organic combination of content and real-life thinking arouses the students' learning motives. With proper instruction, the students' acquisition of teaching content gradually develops from the primary level of knowledge and understanding to the advanced level of analysis and evaluation.

Secondly, in terms of language ability training, it is highly effective to focus on the analysis of background information and long difficult sentences that affect students' understanding. In content-based English teaching, the text is usually difficult, and the traditional language explanation still has important learning and understanding value. In the course of teaching, there are a large number of group and class discussions based on the content of the text. These discussions are designed to promote the students to use the new vocabulary and usages, which has strengthened the effect of language learning.

Thirdly, in terms of integrity cultivation, thanks to CBI, the teacher can instill target cultivation into the students naturally. Meanwhile, the students' speculative ability is reinforced: they tend to apply the sociological knowledge learned from the text to the further speculation of their own and the whole society's integrity. The students start to understand and analyze social and personal moral problems from the perspective of psychological analysis, which turns to stimulate their thinking and self-improvement of moral ethics.

To sum up, from this teaching practice, it can be concluded that in the content-based college English teaching, through effective classroom design, language skills training and social knowledge can be organically integrated, and they complement each other. This integration can also promote the development of students' speculative ability, to achieve the real internalization of teaching content.

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Appendix 1: Table 5.2 Students' Satisfaction towards Integrity Cultivation

Attitudes towards integrity cultivation (n=31)		Benefits of Integrity Cultivation Activities (n=31)		Attitudes towards the Instructor (n=31)		Experience of Integrity Internalization (n=31)	
M	SD	M	SD	M	SD	M	SD
4.317	0.507	4.439	0.351	4.429	0.278	4.011	0.789

Appendix 2: Satisfaction towards Integrity Cultivation in College English Course

Name: Gender: Age:

VU = very unsatisfactory; U = unsatisfactory; N = neutral; S = satisfactory; VS = very satisfactory

		How satisfactory do you find:	VU	U	N	S	VS
Attitudes towards integrity cultivation	1	The idea of integrity cultivation in college English course					
	2	The method of theme-based Content-Based Instruction					
	3	The improvement in your English proficiency					
	4	The improvement in your integrity					
	5	The balance in learning of English and integrity					
Benefits of integrity cultivation activities	6	Your understanding of white lies					
	7	Your awareness of the ubiquitous white lies in society					
	8	Your group members' understanding of white lies					
	9	Your communication on integrity with group members					
	10	Your understanding of the truth about lies					
Attitudes towards the instructor	11	Your instructor's motivation for integrity					
	12	Your instructor's explanation and clarification of the learning target					
	13	The topic your instructor presents in the classroom for integrity discussion					
	14	The encouragement you get from your instructor to talk about integrity					
	15	Your instructor's feedback on your understanding and idea of integrity					
Attitudes towards integrity internalization	16	The realization of complexity of integrity					
	17	The knowledge of the truth about lies					
	18	The helpfulness of this practice					
	19	Your decision on the improvement in integrity					
	20	The possible ways to improve your integrity					

Analysis of Internet Buzzword "Niang Pao": An Etymological Study

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Abstract: The use of the Chinese word "Niang Pao" has recently become widespread on the Internet and in people's daily conversation. This paper seeks to analyse the origins and development of the buzzword "Niang Pao", so that a second language or a foreign language acquirer may know more about it. The author argues that the emergence and development of popular Internet words are inseparable from specific social and historical conditions and/or the influence of language itself, but the essential reason is people's need for communication. This etymological analysis can help people deepen their understanding of Internet buzzwords, and at the same time, provide a useful reference for researchers in language, psychology, sociology, and other disciplines.

Key words: Niang Piao; Word Model "X Pao", Internet buzzword, Chinese words, etymological study

1. Introduction

Recently, the Chinese word "Niang Pao" has circulated on the internet and in the conversations of people's daily lives. Although the word "Niang Pao" has a derogatory connotation in Chinese language context, a popular word is a reflection of the society, and the emergence of the buzzword word "Niang Pao" may possess a unique social function. However, at present the research about the generation and utilization of "Niang Pao" are not comprehensive enough. Most studies lack theoretical support and methodology guidance, thus there is a need for a serious, in-depth, and detailed study. This paper seeks to apply linguistic theory to analyse this new word from an etymology perspective, to explore its origins, future trends, and compare similar words. In order to further analyse popular words on the Internet and their position in the modern Chinese vocabulary, according to the strength of the vocabulary of word-building ability, this paper classifies the vocabulary of " Niang Pao", and analyses its composition to explain its impact on modern Chinese language.

2. The Origin and Meaning of "Niang Pao"

The word "Niang Pao" is a phrase in which "Niang" is used to modify the central word "Pao". It came from the 2007 Taiwan TV series "I Want to be a Hard Persimmon". In the TV series, the word "Niang Pao" was used to imply the ineffectual personality of the male leading character who behaved like a female. Gradually, the word was used to refer to a sissy in Chinese language usage. In 2011, a Tencent Blog commented on a magician in CCTV Spring Festival Gala using the word "Niang Pao", which meant the man's behaviour was too feminine. The following three cases represent the origin and meaning of the word:

Case one: the origin of "Niang Pao was presented in the TV series "I Want to be a Hard Persimmon (2007), and was used when Shizhi Ruan was seen to be scared when bad things happened, Shishi Sun shouting: "Niang Pao! Are you a man or not? "

Case two: On April 11, the People's Daily Online released a Blog, "Boys look like Girls" that become a social phenomenon. It used a picture from a film of Yuanzheng Feng acting like a sissy, which instantly aroused ridicule from netizens. In the picture, Yuanzheng Feng wore delicate makeup with slightly closed eyes, and the little finger of his right hand, painted with a red nail polish, was slightly lifted. The image of a sissy was deeply imbedded in readers' minds (Health Times, April 13, 2015).

Case three: On September 12, 2018, China Women's Daily (2018) argued that if a woman's behaviour is masculine, people may think they are cool. However, a man displaying feminine behaviour may be at a disadvantage. A "Niang Pao" type male had already been around since the antient times. In recent years, this aesthetic came to be more popular within the entertainment economy and for fan consumption. The attacks and aversion towards "Niang Pao" represent the power suppression of marginal masculinity in favour of mainstream masculinity.

It is found that from an inner feminine disposition to unduly feminine behaviour, it underwent a process of expanding the meaning of "Niang Pao". For case one, "Niang Pao" referred that the main character as cowardly and behaving like a woman. The male character possessed an introverted personality and since his childhood was easily bullied. When he was under the pressure to make a decision, he was always hesitant and panicky and even wanted to escape. Thus, the female character called him "Niang Pao" as a nick name. For case two, the meaning of "Niang Pao" has been extended from the simple meaning of a sissy character to personal

behaviour. The "Niang Pao" of case two refers to the still photograph of Yuanzheng Feng, in which the man is disguised as a woman and seems like a "Niang Pao" externally. The specific description was "delicate makeup with slightly closed eyes, and the little finger of his right hand, painted with red nail polish, was slightly lifted". And we can see in case three, the meaning of "Niang Pao" is not just "sissy character" or "sissy behaviour" but was extended to include "both character and behaviour that are too feminine". This "Niang" is not just so-called inner or outer feminization but is revealed from the inside out. The development of "Niang Pao" is from "sissy character" to "sissy behaviour", and to "sissy personality and behaviour", is an example of the process of continuous semantic expansion. Originally, "Niang Pao" simply referred to a weak character like women. Later, the meaning of "sissy behaviour" was developed, which constituted a homologous relationship with the original meaning of the word. In the end, the final meaning "both personality and behaviour are sissy" and the previous two meanings constitute a hyponym, which can also be called genus-species relationship. From the single "sissy character" to "sissy personality and behaviour", this is an evolution from the cognitive domain to the language domain.

According to the above cases, it is acknowledged that the meaning of "Niang Pao" is a man who tends to be feminine in both character and behaviour.

3.   The Analysis of the Construction of Word Model "X Pao"

A Chinese grammarian Mr. Yuming Li (1999) put forward that the Chinese "word model" had the function of constructing all kinds of words, and he believed that a word model was composed of two parts: the 'fix model' and the 'model slot'. The fix model is the fixed word in the word model, while the model slot is the vacant word (X) in the word model. According to the position of the fix model and the model slot in the word model, the word model can be classified into the front vacant type (the model slot in the front of the fix model, for example: X man), the hollow type (model slot in the middle, for example: have X meal) and back vacant type (fix model in front of the model slot, for example: old X).

In the first Chinese Dictionary – "Explain Words", Mr. Shen Xu (1963) explained that "Pao" is meat roasted with fur. "Huo" is used as the radical of one side of a character and "Bao" is the phonetic complement. The meaning of "Pao" as a "firearm" first appeared in the Record of Gods from Three Caves, Volume 13 of the Song Dynasty: "Huang's son wanted to return home at dusk but touched his heart with his stick by mistake. Suddenly, the thunder of Pao was heard, making a terrifying noise. The man was holding a smoking stuff, and the flame hit the bamboo groove. The man hit the bamboo groove with his hand, making a loud sound which gradually disappeared into the clouds." There is a saying in Wanzhen Feng from the end of the Qing Dynasty: "if a Pao was here, will our village not be destroyed?" The "Pao" here refers to a kind of weapon.

In ancient times, it refers to the machine for launching stones. Later, when gunpowder was invented "Pao" referred to a weapon firing iron pellets with gunpowder.

The evolution of "Niang Pao" not only follows the general characteristics of the evolution of the whole construction "X Pao", but also has its own characteristics. There are two main evolutionary routes of "X Pao" construction: one is a population evolution construction, such as "Niang Pao", and the other is a weapon evolution construction, such as "Zui (mouth) Pao".

From the perspective of semantic combinations, the word model construction of "X Pao" can be divided into two types: simple semantic quadratic combination and highly concentrated semantic quadratic combination.

Firstly, a simple semantic quadratic combination means that with the combination of some simple adjectives with the word "Pao" the meaning of the combined word could be roughly inferred. Here, the word "Pao" means a kind of people, and the preceding "X" is the modifier of "Pao".

(1) Niang Pao, refers to males whose behaviours and characteristics are like those of females;

(2) Ye Pao, refers to females whose behaviours and characteristics are like those of males;

(3) Lao Pao, a local dialect in Beijing, cannot be traced back to its origin. There is a saying that this word comes from the abbreviation of "frequently went to the public security bureau". All hooligans and gangsters who often get arrested are called "Lao Pao". This word means that a person often commits crimes and is a renowned underworld figure. Originally, it was a slang word with derogatory connotations, and then it gradually became ambiguous. The "Pao" here refers to a group of male gangsters.

Secondly, a highly concentrated semantic quadratic combination refers to the combination of some nouns and the word "Pao", and the meaning of this combination cannot be easily inferred, as it possesses implicit semantic meaning. Here "Pao" stands for "with … as weapons".

(1) "Zui Pao" refers to those who often make some claims that they cannot realize. It also means taking the mouth as the gun; that is, bragging and boasting. In Japanese ACGN culture, it is a common "skill" that the protagonist makes full use of his eloquence to persuade the enemy with emotion and reason, and to cause mental harm to the enemy by yelling with all his might. In fact, they use their mouths as weapons.

(2) "Di Tu (Map) Pao", originally refers to a kind of map attack weapon as in the Super Robot War series. Later, it was used to refer to some weapons or magic of mass destruction. Now, the extended meaning of "Di Tu Pao" is to carry out a verbal attack on a certain group, often referring to attackers aimed at specific regions, also known as "regional contempt". In fact, maps are used as weapons.

Whether it is a simple semantic quadratic combination or a highly concentrated semantic quadratic combination, in reality it becomes widely accepted on the Internet when people pay attention

to a hot issue. These words not only reflect the emergence of new things and new phenomena, but also meet people's needs of expression of new concepts.

4. The Trend and Development of the Internet Buzzword "Niang Pao"

The trend of Internet buzzwords has two fates: one is to disappear in the ocean of words and be forgotten when it is no longer popular; and the other is to become part of the common vocabulary, and is included in the dictionary as one of the commonly used words. The emergence of the word "Niang Pao" can clearly represent the enhancement of social inclusiveness. The public began to accept the emergence of "Niang Pao", which satisfied the curiosity of young people. However, it is highly unlikely that the elderly would use and accept this word, because of the differences in cultural background and aesthetic appreciation. The emergence of the social phenomenon of "Niang Pao" led to the formation of the word "Niang Pao" in the Chinese language, and the social effect of the word "Niang Pao" came into existence. This word could continue to develop, but the influence of current economic factors, educational methods, celebrity effect and other constraints may not allow this word to go that far. There is a need to undertake study on whether "Niang Pao" can be achieve stability in usage and eventually be included in the dictionary.

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Studying on the Integration of the Chinese Traditional Festival Culture and the College English Course

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Abstract: The traditional Chinese festival is an important part of Chinese national culture, thus has rich educational resources for teaching and learning the college English course. With the deficiency of monoculture input, there is a need for the college English teachers to integrate the traditional Chinese festival culture with English language learning to form students a comparative perspective so that they may have a more profound understanding of both English and Chinese cultures. To realize this, the paper argues that the college English courses should fully explore the significance of Chinese festivals and expand the teaching contents, and vivid classroom activities also should be designed so that students can have immersive cultural learning experiences.

Key words: Chinese traditional festival culture; college English course; integration. Comparative perspective

1. Introduction

The long history of five thousand years gives birth to the splendid national culture to Chinese ethnic peoples. What flows through the Chinese culture is the blood of the Chinese nation; what is built by the culture is the spiritual home of Chinese people. It is of great significance to enhance the soft power and strengthen the confidence of the ethnic culture for the realization of national prosperity. What's more, the Chinese traditional culture contains rich educational resources, like the spirit of unity, friendship, diligence, morality and harmony, which endow it with important instructive functions. In 2017, the State Council promulgated the *Opinions on the Implementation of the Inheritance and Development Program for the Excellent Traditional Chinese Culture*, which points out that based on the fundamental tasks of strengthening morality education, following the students' cognitive rules and teaching rules, the Chinese excellent traditional culture should be integrated with the whole processes of moral education, knowledge education, art and physical education, and social practice education. Also, it should thread through enlightenment education, basic education, vocational education, higher education, and adult education (General Office of the State Council, 2017).

Among the various Chinese traditional cultures, festival culture is a very important one. The Publicity Department of CPC Central Committee, General Office of Central Commission for Guiding Cultural and Ethical Progress, the Ministry of Education, the Ministry of Civil Affairs and the Ministry of Culture jointly issued *Opinions on the Use of Traditional Festivals to Promote the Excellent Traditions of National Culture through Traditional Festivals*, which pointing out that the traditional Chinese festival that carries the cultural blood and ideological essence of the Chinese ethnic peoples is the important spiritual bond to maintain national unity, ethnic unity and social harmony. Fully using traditional ethnic festivals and carrying forward the excellent tradition of national culture are of great significance for forming an interpersonal relationship of mutual help and harmonious social environment of friendly equality and warm and for further enhancing the cohesion and identity of the Chinese nation. Today the Chinese government emphasizes the central position of moral education and advocates ideological and political work through education and teaching to realize the whole process of education and all-round education. In such a case, we could not ignore the important role the traditional festivals play in the process of education. At the same time, the traditional festival culture is also an important part of the external communication window. By carrying forward the connotations of festival culture and holding festival activities, we can promote the international spread of the excellent traditional Chinese cultures and export the representative items, realizing cultural exchanges, mutual learning and cooperation between China and foreign countries.

In China, the college English course is a crucial channel for Chinese college students to contact with foreign cultures. Through the study of this course, young students can get to know the excellent western culture and master English, a language tool for international communication. Thus, at the same time, the college English course also shoulders the task of spreading the excellent traditional Chinese culture to the world. It is of great significance for students to learn how to tell good Chinese stories and good Chinese culture using an international language. Therefore, this paper is devoted to studying the significance and strategies of the integration of the Chinese traditional festival culture with the college English

course, expecting to provide some references for the teaching model of the combination of culture and language.

2. The connotations and importance of the Chinese traditional festival culture

When talking about the cultural connotations of Chinese traditional festivals, first of all, a concept should be made clear, that is, collective memory. This important concept is put forward by French sociologist Maurice Halbwach, who believes that memory is not an isolated being, but cultural.   Halbwachs (1992) indicated, "it is in society that people normally acquire their memories. It is also in society that they recall, recognize, and localize their memories". Thus, "it is in this sense that there exists a collective memory and social frameworks for memory; it is to the degree that our individual thought places itself in these frameworks and participate this memory that it is capable of the act of recollection."[2] This is the social framework of memory or "collective memory". In this framework, if we want to understand individual memory, we most put it in the groups, because "these various modes by which memories become associated result from the various ways in which people can become associated" (Halbwachs, 1992). At the same time, the relationship between individual memory and collective memory is not one-way. As Halbwachs (1992) addresses "the individual remembers by placing himself in the perspective of the group, but...the memory of the group realizes and manifests itself in individual memories".

Later, on the basis of Halbwachs' social framework, the famous German scholar and the founder of cultural memory theory, Jan Assmann, further divides collective memory into two types: the communicative memory and the cultural memory. The communicative memory comprises memories related to the recent past, like generational memory, while the cultural memory is a kind of ceremonial communication in an absolute past. In particular, Assmann (2011) points out that the collective participation is a crucial condition for consolidating the knowledge of group identity; rituals and festivals, which are the primary organizational form of the cultural memory, provide a specific condition for group members. Through regular repetition, "festivals and rituals ensure the communication and continuance of the knowledge that gives the group its identity. Ritual repetition also consolidates the coherence of the group in time and space" (Assmann, 2011).

In this sense, the traditional Chinese festivals are definitely forms of cultural memory that embody the identity of the Chinese nation. In China, the traditional festivals mainly include Spring Festival, Winter Solstice Festival, Dragon Boat Festival, Double Sevens Festival, Tomb Sweeping Day, Lantern Festival, Mid-Autumn Festival and Double Ninth Festival (See the Note for details). Some of the festivals are derived from the folk ritual activities like sacrifice and pray; some originate from agricultural production so that have a close relationship with the twenty-four solar terms.

These festivals condense the emotional, moral and aesthetic tastes of the working people. The customs and rituals closely related to festivals are unique folk symbols, which show the spirit and moral values of Chinese ethnic peoples. For example, in Spring Festival, people paste couplets to express expectations and hopes for a good harvest in the coming new year; staying up all night at New Year's eve is a review and thanksgiving of the past year, but also a blessing and expectation for the coming year; worshiping ancestors on Tomb-Sweeping Day is for cherishing the memory of the past, modifying our own and inspiring future generations; making rice dumplings on Dragon Boat Festival is to express the patriotic feelings and endeavor spirit; the reunion of family members on Mid-Autumn Festival embodies the attachment of the importance on kinship and moral traditions. Inheriting the cohesion of the Chinese nation, these repeated folk-custom symbols for thousands of years are important embodiments of the national identity of the Chinese people. Regardless of the traditional etiquettes and customs, or the current ways of celebration, Chinese people take rest and recuperate and gather together during festival holidays, in which way, festival time separates from the daily time, realizing the harmony between human and nature, and also reflecting the Chinese people's national spirit of diligence, courage and self-improvement.

On the other hand, the Chinese traditional festival culture is an important part of cultural soft power, which is crucial to the comprehensive national strength. In addition to the economic strength, national defense strength and technology strength, cultural soft power is the core competitiveness of national development. With the increasing development of globalization, culture, which plays an important role in international competition, has become a dominant factor of national development, paralleling with the economy, technology, and politics.

3. The significance of the festival culture and the college English course integration

In 2017, the Chinese Ministry of Education issued *College English Curriculum Requirements*, which clearly states that one of the objectives of the college English course is to develop cross-cultural education. It stresses that language is the carrier of culture and a part of it as well. So students learn and master English as a communication tool in order to exchange advanced scientific technology and professional information. Besides this, college students should also need to know the society and culture behind language, enhance the understanding of different cultures, aware of the similarities and differences between Chinese and foreign cultures and cultivate cross-cultural communication ability. From the perspective of humanism, the college English course should be human-oriented and promote the value of people. It is necessary to fully explore the rich humanistic connotations of the college English course and realize the organic unity of instrumentality and humanism (Chinese Ministry of Education, 2017).

Chinese traditional festival culture, containing very rich

ideological connotations, has an important educational function, which is expressed in the spirit of patriotism first. For instance, the Dragon Boat Festival is in memory of Qu Yuan, a great patriotic poet pursuing spiritual freedom, social justice, and equality. People make rice dumplings on that day to memorize this patriotic pioneer at the same time to remind themselves to love the motherland.

Festivals are also very good ways to expand the traditional Chinese virtue education. The traditional moral or ethics reflected in Chinese festivals is a good source for virtue education to young students. Nowadays, festival holidays have become precious breaks from hustle and bustle of life. People take these as opportunities to visit family elder members, to join in family reunions or to do some charity work, which gives Chinese traditional festivals the function of inheritance and enhancement of traditional merits.

The third function of festivals is family ethical education. Most of the traditional festivals are associated with family affections. For example, Spring Festivals emphasize happy family reunion; Lantern Festival and Mid-autumn Festival imply happiness and prosperity; Tomb-sweeping Day recalls family ancestors; Double Ninth Festival advocates the respect and love of the elderly. So these traditional festivals embody Chinese emphasis on family ethics and values, which is missing in modern young people's life sometimes.

As a result, hereby this paper promotes the combination of Chinese traditional festival culture and college English education, which has bidirectional meanings. On one hand, when students learn the western culture and civilization in class, they can form a comparative perspective that promotes a more profound understanding of their own culture and moral values. In the past, in English classes, teachers and textbooks emphasize the input of western culture, letting students keep learning fresh new thoughts and values. This is a single perspective with which students only obtain relatively passive knowledge input. With the integration of festival culture, teachers keep reminding students of the differences and similarities between western and Chinese cultures, which enables them to acquire new values at the same time do not forget their own. This is very important for shaping sound moral values for Chinese young people.

On the other hand, with the integration of festival culture and language learning, students possess an international perspective on Chinese culture. They not only learn how to use English to communicate with the world but know how to tell good Chinese stories to the world. With the students' mastery of English, Chinese traditional culture obtains opportunities to be expressed internationally. The content of the class will be no longer just the language techniques, but discussions on cultural values in English.

4. The problems of festival culture and college English course integration

However, there exist some problems in the integration of the Chinese traditional festival culture and the college English course. First of all, some college students do not have a deep understanding of the connotations of the traditional festival culture. In China, the majority of college students are young people between 18 and 22 years old, who are energetic, active, inquisitive and full of curiosity about new things. They have a positive attitude towards learning a new language or culture, but often neglect to learn their own traditional culture. One of the reasons for this phenomenon is that higher education is still to some extend short of education on the Chinese traditional values. In addition, some Chinese students do not pay enough attention to the study and thinking of cultural connotations of festivals. To some young students, the festivals just mean holidays, on which they could travel or get together with their friends. Most of the cases, the sense of ceremony is neglected. As for the moral and ethical values embodied in the connotations, they do not care about it. Some of them are even unclear about the origin of those traditional festivals.

Secondly, in the setting of the college English curriculum, the focus of teaching, most often, is still the western language and culture. No matter in the contents of textbooks or the teachers' instructions, the emphasis always lay on English learning skills or some related cultural background. To some extent, it is justifiably. Because learning a language is to learn about the cultures and traditions behind it, so the instructions of western cultures are necessary. However, if there lack the comparative perspectives on their own culture, students may not form an objective judgment on foreign cultures and their own, which has a negative impact on the formation of values under Chinese culture.

Nowadays, some students consider Christmas, Thanksgiving or Halloween as important festivals in daily life, because there are always many interesting activities held on those days. As for the cultural traditions behind the festivals, they may know a few. So, a kind of situation may happen, that is, the students celebrate festivals just for interest and fun, not for cultural values. In such cases, the college English course should cultivate a comparative perspective for students to learn both Chinese and western culture so that they will know more clearly about the differences and similarities between them. After the perspective is formed, students can possess a rational and serious attitude to view festivals, no matter Chinese or western. English course is no longer an input media, but also an output channel—let students think more and do more.

Thirdly, in the current college English teaching process, there are still not enough appropriate culture-oriented teaching and learning methods. As mentioned above, students should adopt a comparative perspective while learning a language and culture, but the problem of how to form it has not been well solved. How to better understand the Chinese culture from an international perspective? How to form a communicative perspective to let Chinese culture go out? The current college English teaching has not yet provided satisfying answers to these questions. Generally speaking, teachers can explain the culture behind the language, but the process often relies on audio-visual or reading materials. Through watching, listening and reading, students know something

about culture diversity. Without immersive experience, this kind of teaching cannot provide students a good cultural experience feeling.

Actually, it is really difficult to build immersive cultural feelings in a langue classroom, if there is no real cultural environment, unless both teachers and students have profound knowledge accumulation. So no matter the input of western culture or the output of Chinese culture, personal experience is very important for both. College English teachers should design immersive and experiential cultural integration teaching for students to learn language and cultures.

5. Strategies and methods for festival culture and college English course integration

In order to cultivate a comparative perspective for students in college English class, teachers should try to integrate the Chinese festival culture into the current language teaching process, so that to form a combination between different languages and cultures. First of all, teachers should fully explore the educational function of the Chinese festival culture and emphasize the importance of its connotations to students. The first step to understanding Chinese and western culture is to form the awareness of its significance. As mentioned above, some contemporary college students don't attach importance to Chinese traditional culture, thus neglecting the study of the comparison between cultures. Therefore, the significance of the Chinese traditional festival culture and the values behind should be emphasized among college students.

However, it should be made clear that only by a single language course is difficult to realize the cultural immersion. So colleges should promote the combination of the English course and other courses, especially those optional cultural courses, which play importance in enhancing students' moral values. Those courses may include Chinese literature, Chinese history, traditional social culture and so on. They can be very good channels to spread the excellent traditional Chinese culture. College English teachers may carry out joint preparation of lessons, through which teachers of different cultural courses can know each other's needs, so as to improve the students' understanding and attention to Chinese traditional festival culture.

Second, it is necessary to fully expand the teaching contents of the college English course by integrating the Chinese traditional festival culture. Most of the textbooks used in current courses including very rich cultural materials focus on the introduction of western culture and language, in which main traditional western festivals are well introduced, like Christmas, Halloween, Thanksgiving, Easter and so on. However, in the current publishing market, it is hard to find an English textbook in which Chinese culture is well integrated into. As a result, college English teachers should have a comparative cultural perspective on their own.

In the teaching process, a typical contrast method is often used in the comparison between cultures. That is, when talking about British and American culture, it is necessary to introduce relevant Chinese traditional culture to arouse students' comparative learning. For instance, Christmas has many similarities with the Chinese Spring Festival, both symbolizing ringing out the old year and ringing in the new coming year and both providing family members a chance to get together. Therefore, when teachers introduce Christmas in English classes, they should import the knowledge about Spring Festival so as to let students compare the differences and similarities between them. For another example, the Lantern Festival and Halloween are both lantern festivals, but their connotations are quite different. Teachers can put forward some research questions to promote students to find the differences behind the culture. In this way, students can understand the connotations of western cultures, but also can reflect on Chinese culture from an international perspective and tell their own festival stories in an international language.

Thirdly, vivid classroom teaching activities should be designed so that students can have an immersive cultural learning experience. Festival culture differs from other cultures in that it is fixed on the calendar with repeated ritual celebration, which is very helpful for teachers to organize scenario-based teaching activities to enable students to have firsthand experience. For example, on Christmas, some party activities can be organized, like singing English songs or writing English cards and so on; before Dragon Boat Festival, students can bring rice dumplings to classrooms and explain festival legends in English; about the Mid-Autumn Festival, teachers can invite students to share local delicacies and tell about the characteristics of moon cakes in their hometown, etc.. Through such practical cultural experience, students can truly feel the difference and similarities of Chinese and foreign cultures, as well as the different values behind them. Teachers can also arrange some cultural research assignments to push students to explore festival cultures by themselves, so as to enable them to have consciousness of homeland.

6. Conclusion

After thousands of years of inheritance and development, traditional Chinese festivals have become important parts of national culture, reflecting the core values of Chinese traditional culture and vividly displaying the spiritual world of the general public. College English, as a window for Chinese students to look at the world, is one of the most important courses on western culture and langue. This study advocates the integration of traditional Chinese festival culture and the college English course, in which way to form a comparative perspective for students so that they can possess a clearer understanding of local culture while learning western ones. In a further sense, this kind of international cultural perspective is an important way for us to export our own excellent culture to the world and enhance the soft power of national culture vice versa.

Note: In China, the twenty four solar terms include the Beginning of Spring, Rain Water, the Waking of Insects, the Spring Equinox, Pure Brightness, Grain Rain, the Beginning of Summer,

Grain Full, Grain in Ear, the Summer Solstice, Slight Heat, Great Heat, the Beginning of Autumn, the Limit of Heat, White Dew, the Autumnal Equinox, Cold Dew, Frost's Descent, the Beginning of Winter, Slight Snow, Great Snow, the Winter Solstice, Slight Cold and Great Cold.

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Combining the Internet and Case Analysis in the Teaching of Pathophysiology for Medical Majors

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Abstract: With the development of the Internet and the prevention of COVID-19, online learning platforms are being promoted across the world in 2020. Internet teaching platforms such as online Dingding live broadcasts, MOOC, and the Xuexitong App are being widely used in universities in China. This paper aims to evaluate the teaching of Pathophysiology for medical majors at Yanbian University. It was found that with the combination of an Internet teaching model and case analysis, the teaching of Pathophysiology stimulated the students' learning interest and their independent learning, and it also improved the teachers' teaching quality. This paper recommends that the use of the Internet plus case analysis are worthy of combining and applying to university teaching for medical majors.

Key words: Internet, medical major, teaching, Pathophysiology, case analysis

1. Introduction

In 2020, COVID-19 has spread all over the world with more than 10 million cases, and it seriously threatens the health, life and learning of everyone. However, teachers at Chinese universities have taken advantage of the technology developments of the Internet and to follow the government requirements for "Stopping Classes but not Stopping Learning". They have applied online learning platforms to promote digital-teaching networks, which have achieved satisfactory teaching results. The Internet teaching model has become a common educational practice across universities in China (Liu, et al. 2020).

This paper reports a self-evaluation of the teaching of Pathophysiology for medical majors at Yanbian University. Pathophysiology is a fundamental professional medical course, and it is a "bridge course" that intricately links basic medicine and clinical medicine (Wang & Qian, 2018). But its content is abstract and difficult to understand, and students' learning interest is low and their autonomous learning effects are poor, which directly affects their later learning of other clinical medicine courses. To facilitate students' Pathophysiology learning, the School of Medicine at Yanbian University developed a blended teaching model that included the online Dingding live classroom and other multi-platform linkage applications in the undergraduate and graduate teaching of Pathophysiology, which was combined with intensive theoretical study and case analysis. It was found that this blended teaching stimulated the interest of medical students in learning, improved their independent learning ability and enhanced the teachers' teaching quality, and changed the traditional teaching model of passive acceptance of learning (Wang, Liu & Yang, 2020).

2. Constructing a Network Learning Platform for Pathophysiology

Pathophysiology is a vital medical course that mainly teaches the characteristics and laws of diseased body functions and metabolic changes. But its content is quite abstract, and is closely related to clinical cases. When students start to learn the course, they have not had any experience of the clinical courses, and they generally report that Pathophysiology is difficult to understand, hard to remember, and not easy to learn. Although, in the traditional Pathophysiology classroom teachers explained knowledge systematically, the major problem was that they applied a single teaching method (chalk-and-talk) with excessive amounts of learning information too inflexibly. In addition, the teaching hours were limited, and some content could not be displayed and explained in the classroom. Therefore, there is a need to employ diverse and flexible teaching and learning methods.

Due to the COVID-19 epidemic in 2020, the Chinese government requires "Stopping Classes without Suspension Learning", which has made online learning feasible and widely promoted across China. For our teaching of Pathophysiology, we started to apply the online Dingding live broadcast, a MOOC learning video, and a campus network learning platform, combined with the learning method of the mobile phone "Xuexitong" APP learning platform. This blended teaching and learning method facilitated students' online course preview before class, and the teacher's combination of case analysis in class. The hybrid teaching model used by us in the course, which included intensive theoretical study, online or offline review combined with case analysis after class, has been widely praised by the students, which promoted better online communication between teachers and students, and boosted the students' enthusiasm for independent learning.

3. Adjusting Teaching Content and Reforming Teaching Methods

In order to improve the effectiveness of systematic teaching of Pathophysiology and promote students' autonomous learning ability, we divided the overall teaching content into different stages in the teaching process, and we arranged related chapters more closely together to form a teaching section for each stage. For example, the Pathophysiology teaching content in the textbook can be divided into two parts: general information and monographs. The general content included hydration, electrolyte balance disorders, acid-base balance disorders, hypoxia, fever, diffuse intravascular coagulation, shock, ischemia-reperfusion injury, etc. The Monographs of Pathophysiology included cardiac insufficiency, pulmonary insufficiency, liver insufficiency, renal insufficiency, and brain insufficiency, etc. (Wang & Qian, 2018). In the teaching process, the closely related content such as hydration and electrolyte disorders, acid-base balance disorders and Renal insufficiency, hypoxia and respiratory insufficiency, diffuse intravascular coagulation, shock, ischemia-reperfusion injury and cardiac insufficiency, were taught in the same teaching modules, which greatly enhanced the connection of the course content with the cutting-edge science.

In order to improve students' interest in learning Pathophysiology and to develop their ability to learn independently, we applied online and offline blended learning models to be carried out before, during and after the Pathophysiology classes. After the first introduction class, we provided a case analysis for students to preview the next chapter, allowed them to preview relevant theoretical knowledge before class and combining theoretical considerations with cases to develop the learning habit of asking questions and solving problems. In the class, the teacher first introduced typical clinical cases related to the content of the course, and proposed key knowledge points to guide students to think actively, interact and communicate with other students before the end of the class, and complete the case analysis questions after class to strengthen and consolidate the key knowledge points of the course. The teacher learned about students' knowledge of the Pathophysiology based on the interactions with students in the class. The teacher left additional case analysis questions after the class to help students to consolidate and review the content of the class and preview the content of the next chapter. Thus, students' autonomous learning was developed and habituated.

For example, when teaching the content of the Chapter on Dehydration, the teacher first introduced a typical case: A patient, male, 21 years old, was admitted to the hospital for 1 day due to frequent vomiting, diarrhea and fever due to contaminated food, irritability, obvious thirst, and oliguria. Physical examination: body temperature 38.8°C, R 30 beats/min, HR 112 beats/min, Bp 110/80 mmHg, dry skin and mucous membranes, no sweat, lethargy, and clear consciousness. Laboratory examination: urine output 300 ml/d, yellow color, urine sodium 12 mmol/L, urine specific gravity 1.023. WBC 10.4×10^9/L. pH 7.354, PaCO2 36.41 mmHg, plasma osmotic pressure 324 mmol/L, serum [HCO3-] 22.35 mmol/L, serum [Na+] 156 mmol/L, serum [K+] 4.1 mmol/L, serum [Cl-] 97 mmol/ L. Upon admission, he was immediately given intravenous antibiotics and 5% glucose solution 2000 ml/d.Two days later, body temperature and urine output recovered, and thirst disappeared; drowsiness, erect dizziness, sunken eye sockets, significantly reduced skin elasticity, muscle weakness, abdominal wall reflex disappeared, and bowel sounds weakened. Limbs were damp, superficial vein collapsed, breathing 32 beats/min, Bp 80/55mmHg, HR 128 beats/min, weak. Re-check: urine specific gravity 1.008, urine sodium 8 mmol/L, pH 7.46, PaCO2 42.42mmHg, serum [HCO3-] 33.16mmol/L, plasma osmolality 255 mmol/L, serum [Na+] 124mmol/L, serum [K+] 3.2mmol/L, serum [Cl-] 85mmol/L. Students were asked to answer the following questions: 1. Please explain why the patient's clinical manifestations occurred at the time of admission? 2. What kind of water and electrolyte disturbances did the patient have on admission? And what is the basis for diagnosis? 3. What kind of water and electrolyte disorders did the patient experience after treatment? And what is the basis for diagnosis? 4. Please explain why the patient's clinical manifestations occurred after treatment?

Through the case analysis, students learned that dehydration is not only the loss of extracellular fluid, but also that improper treatment or lack of refrigeration, which can also cause electrolyte disturbances and shocks and other life-threatening pathological processes. This teaching practice increased and greatly improved students' understanding of dehydration, which promoted their learning interest in later chapters such as electrolyte disturbance and shock. When the chapters on electrolyte disturbance and shock were taught, the above questions were modified into multiple-choice questions, judgment questions and other question forms to strengthen the connection of learning points.

We also employed a new assessment method to assess students' learning of the course. The traditional course grading comprising homework and a final exam was changed to mixed assessment including online Dingding live class participation (20%) + learning through MOOC (20%) + case analysis homework (30%) + final exam (30%). The application of this blended teaching and learning method greatly stimulated students' interest and passion for learning, changing their learning from passive acceptance to active autonomous learning, and enhancing theoretical knowledge by completing case analysis questions (Piao, et al., 2016).

4. Upgrading the Teaching Platform

To upgrade the teaching platform, we established the Dingding online teaching platform, combined with the established school teaching resources of a pathophysiology network, and opened MOOCs to improve our teaching resources. The online teaching integrated platform has sections such as course introduction, syllabus, teaching calendar, teacher information, teaching materials, course notifications, Q&A discussion, course questionnaires, course assignments, online testing, and course management. The Q&A

discussion section was further divided into option areas such as course discussion, FAQs, automatic Q&A, and email Q&A. We also used the mobile phone Xuexitong software to promote small-group interaction links, which not only realized time-saving and accurate roll calls, but also realized the sharing of online teaching resources and online assignment of homework. The use of upgrading Internet technology permitted students to independently request teaching resources outside of class, which promoted discussions and exchanges between teachers and students and between students and students themselves.

Through the application of the above-mentioned Internet plus case analysis teaching model, the teaching method reform with the goals of "student-centered" and "autonomous learning" was realized, which stimulated students' interest in learning and improved their ability to find and think about problems. Therefore, the teaching practice developed students' self-learning ability to solve problems and developed their clinical thinking ability, improved our teaching effect, which is worth disseminating within pathophysiology teaching.

5. Issues Need to Be Improved

As discussed, the Internet plus case analysis blended teaching model improved the students' independent learning and our teaching effects, but there are also some problems. For example, the pre-class preparation and after-class review required students to have reasonable self-discipline and self-consciousness. Those students with poor active learning abilities and who failed to complete the teaching tasks in time would encounter more and more problems and lead to unwillingness to continue their learning. Therefore, teaching evaluation should include the preview and review of content. Another example is that the interaction between teachers and students, students and students in class relies on good network signals. Some students in remote mountainous areas received poor network signals that affected their learning and understanding of knowledge points. However, replaying learning can be used to make up for this shortcoming and

with the development of 5G and the increase in network speed, this problem should be well resolved soon. Further, the construction and wide application of the Internet learning platform requires the strong support and effective supervision of the school management department to create a healthy learning platform. Teachers and administrators should learn together to get used to thinking and solving problems with Internet thinking, and work together to improve the Internet Technology service to students.

6. Conclusion

In summary, this paper evaluated the teaching and learning of Pathophysiology for the medical majors at Yanbian University in 2020. We found that by integrating the Internet and case analysis, the teaching of Pathophysiology can stimulate students' learning interest and their independent learning, which also improved the quality of teachers' teaching. We highly endorse the Internet plus case analysis model which should be combined to teach medical majors.

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Teachers' Perceptions of the Factors Contributing to Underperformance of Rural Chinese Students: A Phenomenological Study

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Abstract: The aim of this phenomenological study is to investigate the perceptions of rural Chinese teachers on their teaching profession, and the factors contributing to students' underperformance in rural Chinese schools. Previous research indicated markedly lower test scores among rural students as opposed to urban students, and discussed the role played in this gap by the Hukou (Registered Permanent Residents) system, which prevents families migrating to urban areas for work from bringing their children to be educated in city schools. Applying deductive coding to a series of interviews of rural Chinese teachers, the study identified specific recurrent observations about the factors contributing to their students' underperformance and others about the nature of their work and the status of teachers in Chinese society. The study also found that these teachers attribute their student's academic performance to issues to do with family separations, but they also reported experiencing low social status and an inability to find work in less remote locations.

Key words: Teachers' perceptions, underperformance, rural Chinese students, registered permanent residence system, phenomenological study

1. Introduction

China is the world's most populous country, having reached a population of one billion by the early 2000s (CIA, 2017). To assign benefits to and keep records of this vast population, China requires its permanent residents to register. The Hukou (Registered Permanent Residents) system identifies all 1.3 billion residents by their locations and birthplace status. However, beginning in the early 2000s, more rural Chinese began to migrate to cities to seek better business opportunities and improved wages. Unlike earlier waves of migrants, they tended to travel in nuclear family units, and to bring their children with them. The Chinese government responded to this influx of population by extending the Hukou system from a way of monitoring population movement to one that effectively prevents students from attending schools outside of their region of birth (Hannum, 2005). By limiting population movement, the Hukou system's intent was to prevent overpopulation in urban areas, but in turn it indirectly impacts their children's education when parents who do go to the cities for work leave their children behind.

2. Literature Review

Research on rural Chinese students' educational achievement up to this point has established that urban Chinese students outperform their rural counterparts on school examinations, which suggests a link between this achievement gap and the Hukou system's control of educational access. Professors Zhou and Cheung from the University of Houston examined the consequences of Hukou in disadvantaging rural students as opposed to urban students. They state that, "a majority of migrant student education programs in urban areas were abruptly discontinued after middle-school cohort graduation," leading to "increased groups of rural-migrant children returning to their provinces of origin" (Cheung & Zhou, 2017, p. 5). The shift back to rural areas prevents overcrowding in the cities as intended; however, it ultimately disadvantages many migrant children's educational opportunities and access (Cheung & Zhou, 2017).

Along the same line, Stanford Professor Emily Hannum compared test scores in Chinese school examinations, from elementary through to high school. Rural students in her study, scored an average of 73.3% across both semesters of examinations, while students in urban areas scored an average of 87.5% (Hannum, 2005). This striking difference strengthens Cheung and Zhou's conclusions, as it presents statistical evidence to suggest a connection between China's educational policy and rural student underperformance. This link has been identified in other research, which identified in a 2013 primary migrant survey in Shanghai, the link between underperformance and the impact of separation of rural children and

their parents in China (Xu, et al., 2013).

While Zhou and Cheung (2017), Hannum (2005), and Xu and colleagues (2013) analyzed educational differences between rural and urban, and the impact of the Hukou system, and student performance, there is limited research on rural teachers' perceptions of the situation.

3. Methodology

This study attempts to address this gap in knowledge with the question *"How do rural teachers' perceptions explain rural students' underperformance?"* Data was collated and analysed from a series of interviews conducted by REAP (Stanford's Rural Education Action Project) in late June of 2019 (REAP, 2019). The interviewees were 122 elementary school teachers working in five major southern rural counties in China. Most interviews were conducted in Chinese. The author translated the Chinese into English, and the translations were reviewed for accuracy by Dr. Lei Ding, who is a language specialist working in an international high school in Wuxi, China.

To determine teachers' perceptions of the factors contributing to student's underperformance, this study conducted a phenomenological study based on the REAP interviews, identifying trends that may explain the observed phenomena. A phenomenological study is defined as "the study of the structures of experiences" (Smith, 2013), and phenomenological studies were designed in the context of secondary research, making the format appropriate for this study.

To make sense of the data, deductive coding was used to connect perspectives from previous research with those expressed by the teachers being interviewed.

4. Results

The most often mentioned and significant perceptions emerged in the coding process as themes. The table below contains a list of the five themes that emerged from the coding of the interviews:

Table 1: Definitions of Themes

Definition	Themes
The salary that rural teachers receive each month.	Low Salary
Time periods including weekends and after school where parents were absent due to migration, leading to a lack of guidance.	Lack of Family Guidance
Teachers' performances measured by their last graduation examination results.	Teacher Quality
Communications between teachers and parents after school.	Communication
Public opinion about the teaching profession in rural China.	Social Status

The first column of *Table 1* identifies an issue commonly

referred to in the interviews, and the second column condenses this into a theme heading. This table narrows teacher perceptions to a total of five recurrent ideas expressed in the interviews: low salaries for rural teachers, rural students' lack of family guidance, teacher quality issues, difficulty in communicating with parents, and the problematic social status of the teaching profession in China.

Table 2 matches these major themes with direct evidence. It lists the number of occurrences of each of the five perceptions across all 122 teacher interviews. Representative quotes from specific teachers who were interviewed are given for each, for analysis and discussion.

Table 2: Analysis of Interview Data

Initials, Day#, School#	Quote	Number of Occurrences
BZ, Day #3, School 2	"Many students, in my class at least, do not have good manners at all because nobody is able to teach them at home and to shape their future. I believe this applies to all left behinds" (Zhang, personal communication, June 27th, 2019).	26
HJ, Day #4, School 1	"I come from Beijing, and there was no job available there. The Normal University only allows the high scoring ones to first pick their choice of teaching location, so the low-scoring ones have to teach in remote places" (Jia, personal communication, June 26th, 2019).	25
BJS, Day #2, School 1	"When people ask what job you have, for example, in a supermarket, if you tell them you are a teacher, they are going to laugh at you" (Shan, personal communication, June 26th, 2019).	23
BZ, Day #3, School 2	"Our school does not have that many teachers" (Zhang, personal communication, June 26th, 2019).	6
NAZ, Day #4, School 3	"Parents are really annoying; they lower our working attitude. Many teachers hate working with students because of their parents" (Zhao, personal communication, June 26th, 2019).	6

The first column identifies the teachers by their initials, the day of the interview, and the number given by the study to the school they worked at. The second column provides direct quotes about the teacher's personal experiences, and the third column shows the number of times this perception was articulated throughout the interviews. As this data shows, three of the five perceptions were particularly emphasized: rural students' lack of family guidance, the problematic social status of the teaching profession in China, and poor teacher quality.

5. Discussion
Recurring Perception 1: Lack of Family Guidance
Out of 122 teachers' interviews analysed in this study, 26 or 21%

of the total, attributed rural student's misbehavior in class and after school to their lack of necessary guidance from their family, identifying class misbehavior as a result of parent migration (See *Table 2*). Previous research investigated the consequences of rapid urbanization in China, however, there has been little to no research on the effects of how rapid urbanization impacted parental migration and the left-behind children. Teachers see the lack of parental guidance as an important issue. "Students often misbehave," one teacher reported: "When one student begins to fool around, other students just join him. I cannot report to parents because they are far away in the big cities. If students do not listen to me, they just cannot perform well..." (Xia, personal communication, June 26th, 2019).

Most of the teachers raised this topic see a direct correlation between rural students' misbehavior and underperformance and the lack of adult guidance. This may suggest a need to further examine the impact of the Hukou system, particularly its pressure on parents to separate from their children.

Recurring Perception 2: Social Status of the Teaching Profession in Rural China

Out of the 122 interviewees, 25, or 20%, mention teachers' social status. According to the interviewees, rural teachers experience an uneasy place in society. Xia, one of the rural teacher officials interviewed, describes "the teaching profession in rural China [as] one of the worst professions one can possibly get. It was treated as one of the leftover jobs that also symbolizes a relatively low socioeconomic status both in rural China and urbanized cities" (REAP, 2019). According to Xia, the rural public regards teaching as a low-quality job that nobody wants. In addition, especially in southern counties, Chinese rural residents correlate the quality of a job with its salary. "When people ask me how much money I make, they basically can estimate my job quality from that," Xia explained. Another principal from Ganzhou rural county said: "When people ask what job you have...if you tell them you are a teacher, they are going to laugh at you. We do not want to teach anymore, but we have nowhere to go" (Shan, personal communication, June 26th, 2019). Shan reveals that the rural teacher has become an object of derision, rather than respect, within their communities.

Neither Xia nor Shan directly tied this lack of social status to their students' underperformance, however, it is possible that the lack of respect shown to rural teachers by the adults in the community may communicate itself to students.

Recurring Perception 3: Bad Teaching Quality

Out of the 122 interviews, 23 interviews, or 19%, discussed the importance of teachers' quality and placement. "In China, most teachers graduate from normal university teachers' training programs after taking the end of year examination" (Shan, personal communication, June 26th, 2019). The REAP interviews gave insight into rural teachers' perceptions of the teacher distribution system in China. According to a principal from Baotou rural county, "the districts prioritize teachers who perform well on the examination,

typically those who score 85% to 100%." Teachers who perform poorly on the end of year examination are likely to be assigned to rural areas (Ma, personal communication, June 27th, 2019). Fewer well-prepared teachers, therefore, are funneled into the rural schools, to teach already challenged students. This may be another factor contributing to rural students' underperformance.

Other teachers who were interviewed gave further insight into the Chinese teacher distribution system. Liang from Ganzhou County explained that while it is possible to retake the examination, the government's interest is in keeping teachers in rural schools. They provide incentives for this; Jia's research shows that rural school teachers are paid a salary of 3000-6000 yuan per month in rural counties versus 1200-3000 yuan per month in cities. The higher pay for rural teachers encourages more teachers to work in rural areas, but the quality of these teachers, as measured by exam results, may be lower. As a result, the students who are already likely to score lower than their urban counterparts are being taught by less successful teaching candidates, while urban schools, with their higher scores, take the more successful teachers.

6. Conclusion

This phenomenological study summarized teachers' perceptions of rural student underperformance. From the interviews, it is evident that rural teachers see their students' poor performance stemming from a lack of parental guidance, the societal status of the teaching profession in rural China, and the teacher qualities and the placement system of the Chinese Normal Universities. While this study provides new understandings from the teachers' perspective, it also raises many unanswered questions. For example, Shan et al. (2019), from the REAP's interviews assert that nearly all rural teachers want to move to urban areas even if the salary is lower there. The interview does not provide an explanation for this, which ultimately conflicts with the "low salary" theme discussed in Tables 1 and 2. The Chinese government's investment in higher salaries and financial support for rural teachers does not lead to more teachers seeking to teach in rural areas. More research could also be conducted on teacher distribution, as there is presently no statistical evidence to support Jia's research concerning the Chinese government's intentions toward rural education. Additionally, future researchers may choose to investigate why teachers do not want to work in rural schools, given that salaries are much lower in urban schools. These new research directions might ultimately serve to shed light on the complexity of rural education in China and the underperformance of rural students.

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Research on Medical Students' Academic Development and Career Planning

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Abstract: Career planning for medical students in Chinese colleges and universities is an important way to guide students to identify their professional learning goals, master appropriate learning methods, and prepare their career development directions. The second year of the medical undergraduate is in the transitional stage from basic medical courses to clinical medicine courses. This paper argues that career planning at this transitional stage is of great significance for medical students to improve their learning ability and professional competitiveness. The paper aims to explore the academic development and career planning of the medical students at Yanbian University, China. Based on the analysis of issues in the career planning of medical students, it provided some practical guidance and countermeasures for the medical students' career planning.

Key words: Chinese Colleges and universities, medical students, career planning, learning ability, professional competitiveness

1. Introduction

In Chinese colleges and universities, career planning refers to formulating an optimal career goal for a student through combining one's own professional inclination and the characteristics of the times and making an effective professional arrangement for the student (Peng & Liang, 2015). With the transformation of Chinese medical higher education, the number of medical graduates is increasing year by year, and the employment pressure of medical students is also increasing. Therefore, undergraduate study and career planning are not only closely related to students' personal career development, but also related to the improvement and progress of the national medical standards.

To achieve an optimal career goal, medical students need to have a clear understanding of their professional learning goals, mastering the correct learning methods, and planning their future career development direction, which is a key to enhancing their learning ability and job-seeking competitiveness. As their teachers, we should properly guide the students to rationally analyze the characteristics of the profession and have an in-depth understanding of the profession. This includes the profession direction, industry prospects, job requirements, training and verification, continuing education, business ability requirements, salary expectations, etc., which can pave the way for students' future career development. In this paper, issues in the career planning of medical students are analyzed first, then followed by presenting some practical and countermeasures for medical students' career planning.

2. Issues in the Career Planning of the Medical Student

2.1 Students' Learning Goals are not Clear

It is widely acknowledged (e.g. Du, 2017) that most medical students choose the medical major, their professional goals are unclear. According to the survey undertaken by Du Bin and his colleagues (2017), the following are reasons for medical students' selecting their majors: suitable for themselves (34%), easy to find good jobs (27%), recommended by others (20%), and only a vague idea (20%). From this survey data, we can infer that a considerable number of medical students did not have a clear purpose for choosing a medical major at the beginning of their higher education. The main reasons for these are: (1) students lack understanding of their personality and emotions, etc. (2) students lack understanding of the medical industry, and lack of professional knowledge; (3) students' professional judgment being affected by the values of their families.

2.2 The Grim Job Market for Medical Students

In China, the requirements for medical personnel have increased with the rapid development of the country's health industry and the entry of WTO, which has triggered increasingly fierce competition for medical graduates in the medical market, and China has higher requirements for the professional quality of health professionals. Additionally, the standards of hospitals for recruiting employees are increasing. In recent years, hospitals have increasingly higher requirements for the comprehensive quality of recruiting staff including standards of academic qualifications, medical expertise, and

communication skills. The hospitals of Class III Grade A require medical graduates with doctoral degrees, and some only accept graduates from 985 and 211 colleges and universities. Therefore, the scope of employment for ordinary medical graduates is very narrow.

3. The Practice and Countermeasures for Medical Students' Career Planning

3.1 Holding a "Flip" Symposium on Academic and Development of Medical Students

As discussed in section two, many medical students received little professional information in their high schools, they are unfamiliar with the knowledge of career planning, and feel helpless and confused about their career planning. Therefore, how to cultivate and enhance the career planning ability of medical students so that they can successfully become a medical professional is not only the goal of students but also an important task of university educators. In particular, the second-year undergraduate medical students are in the stage of transitioning from basic medicine courses to clinical medicine courses. How to learn clinical medicine courses well is a problem that every student is overly concerned about and is closely related to their career planning. The results of the previous questionnaire survey showed that 72.7% (104/143) of students believed that career planning is very necessary for undergraduates, indicating that most students need to have career planning guidance.

Based on the needs of medical students, a "Flip" Symposium on Academic and Development of Medical Students was organized, which aimed to build a platform for face-to-face communication between the clinical medicine students, basic medicine teachers, frontline doctors in clinical departments, and management personnel at Yanbian University. The topics included discussions on learning methods, employment issues, continuing education issues, future career planning, etc., and experiences sharing.

At this symposium, we invited 3 teachers from the front line of basic teaching with experience in studying abroad, 13 first-line clinical doctors from various departments involved in clinical teaching and diagnosis and treatment, 2 teachers from the Discipline Construction and Graduate Management Office, and the disciplines of Pathology and Pathophysiology. There were altogether 21 guests including 3 graduate students. The symposium answered questions that students were interested in, such as training, postgraduate entrance examinations, learning methods for medical majors, studying abroad, how to choose clinical departments, and employment, etc.

In order to get better communication efficiency within the specified time, a questionnaire survey and question collection work were conducted in the preparatory work of the symposium. More than 100 undergraduates participated in the questionnaire online and asked questions they desired to know. The results of the survey showed that a question "Are you satisfied with your current learning situation?", 31.2% were very satisfied and relatively satisfied, 52% were

generally, and 16.8% were relatively dissatisfied and very dissatisfied (See Figure 1). This result also reflects the problem of poor learning interest and the unsatisfactory learning situation of some students. For the question "Do you like this major? ", 80% like it very much, and 19.2% in general (See Figure 2). This is consistent with the survey results of satisfaction with the current learning situation, suggesting that the degree of preference for majors could directly affect students' academic performance. To promote students' interest in the major of their choice is another purpose of this symposium. Allowing lower-grade medical students to contact first-line clinical doctors in advance to consult on their own problems or concerns, so that they can better adapt to the transition from basic to clinical practice, and better learn clinical courses to better understand what they have learned. The acquired basic theoretical knowledge is organically integrated into the clinical curriculum.
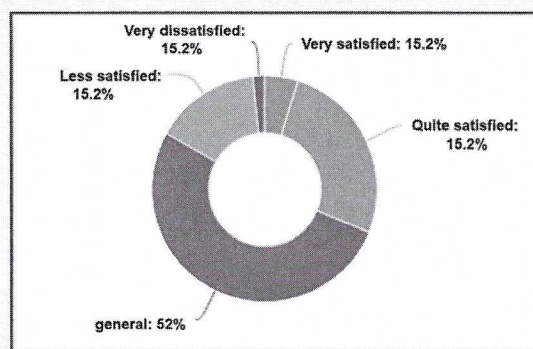

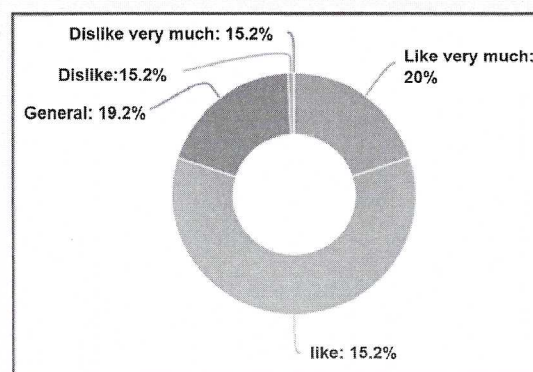**Figure 1. Are you satisfied with your learning status?**

Figure 2. Do you like your major?

3.2 A Summary Symposium

During the first "Flip" Symposium, a total of 92 questions were collected from the students who attended the Symposium, of which 7 are common questions that were summarized for replying. In response to the questions: "(1) What kind of talents does the hospital need? (2) What qualities should medical students have? (3) What is the comparison between academic and professional graduate students? (4) Should clinical learning focus on the disciplines that one will be engaged in in the future, etc." To answer the seven common questions,

the Dean of the Medical School and the Dean of the Affiliated hospital Mr. Kim presented answers to students from the development trend of international medical education, the national medical and health reform policy, medical school and affiliated hospitals, his characteristics and own personal experience, etc., which answered the undergraduates' questions in a simple and practical way.

A questionnaire survey after the symposium showed that 99.2% of students would like to be doctors, of which 44.8% of students choose to be surgery, followed by internal medicine, obstetrics and gynecology, otolaryngology, and other small departments (Appendix Table 1 & Figure 3)). It also disclosed that 92% of the students who would like to choose to enter the postgraduate entrance examination and continue their advanced studies in the future career plan after graduation, and 7.2% of them would like to be doctors. The above survey results demonstrated that through this symposium, all students started to set up a clear goal for career planning. It also reflects the tendency of medical students to prepare to entering graduate school and continue their advanced studies for their future planning. This is also a social issue that reflects the high standards and high threshold of medical professions in current China.
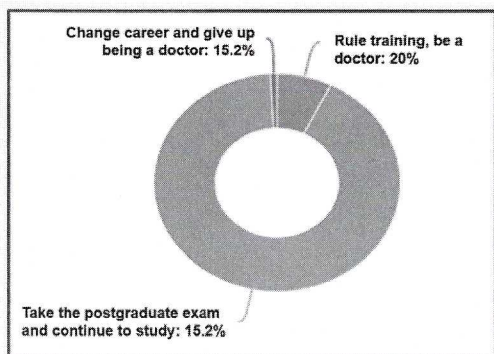

Figure 3. What is your future plan after graduation?

Through this symposium, students reported that they have a better understanding of their learning and career planning, have solved long-standing problems, have clear goals for their future learning and career planning, and have better learning and development power. The guests who participated in the symposium also actively expressed that this kind of face-to-face "flipped" symposium with students, teachers, and doctors is the best way to directly address students' current problems. The teaching and training of medical students also played a positive role in promoting.

4. Conclusion

As a special profession, the medical profession requires stricter professional knowledge for students, medical colleges often only focus on the teaching process of theory and practice, but lack systematic, targeted, and practical career planning education for medical students. The authors of this paper argue that career planning is of great significance for medical students to improve their learning ability and professional competitiveness. This paper investigated the academic development and career planning of the medical students at Yanbian University Medical College and provided some practical advices for medical students' career planning.

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Appendix: Table 1. Career choices of medical undergraduates (125 in total)

Options	Subtotal	%	
Surgery	56		44.8%
Internal Med.	37		29.6%
ICU	2		1.6%
Gynecology	16		12.8%
Pediatrics	5		4%
Small Dep.	9		7.2%

Analyzing the Marketing Mix Strategy of the Sandvik Company in the China Market

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Abstract: This paper analyzes the Sandvik company's marketing strategy through the data collected by interview, questionnaire and desk research. The authors utilized Sandvik's official website and other resources to obtain information about Sandvik. The authors also visited the Sandvik branch in China and discussed marketing strategies with its managers in China. A questionnaire was used to collect information from Sandvik's customers. A SWOT analysis was employed to understand the company's internal and external environment. The authors argue that Sandvik should make every effort to do research on product advantages and improve the management of production. More importantly, the company needs to focus on customers' demands and appropriate production of low value-added and high-quality products.

Key words: Sandvik; marketing mix strategy; 4Ps; SWOT analysis, China market

1. Introduction

Sandvik is one of the top 10 global mining and engineering machinery enterprises with its headquarter located in Stockholm, Sweden. In 2017, it had about 43,000 employees and sold amount about 82 billion SEK in more than 130 countries. As early as 1985, Sandvik established a wholly owned subsidiary in Shanghai. In 2012, its sales in China amounted to more than 7 billion RMB, with nearly 4000 employees, 65 offices, and 14 production bases in China (Sandvik, 2017). Sandvik has repeatedly been selected by Forbes as one of the world's top 100 most innovative companies as recorded on its official website. In 2013, Sandvik won the '2013 China Corporate Social Responsibility of the Equipment Manufacturing Industry Paradigm' Enterprise Award and 'The Top 100 Employers in China' Award in 2016. (Yang, 2016).

This paper aims to investigate the marketing strategy of the company. The reason for the authors choosing to study this subject is that the Sandvik marketing strategy in China is distinctive. As one of the top 10 global mining and engineering machinery enterprises and one of the most successful multinational companies in the world, Sandvik succeeded in the construction machinery industry, and therefore the company's marketing strategy must have some merit (Huang, 2015). Thus, there is reason to explore its marketing strategy.

To analyze Sandvik's company marketing strategy, this study collected data from an interview, a questionnaire, and from desk research. The authors also searched Sandvik's official website and academic journals to obtain information about Sandvik. The authors also visited the Sandvik branch in China and discussed marketing strategies with its sales managers. Then, a questionnaire was used to survey Sandvik's customers to collect information on Sandvik. A SWOT analysis was used to investigate the company's internal and external environment.

2. Research Methods and Results

2.1 The questionnaire

The authors designed a questionnaire and distributed copies to only 20 Sandvik customers by mail and email. The questionnaire included questions on Sandvik Company's products, pricing, market placement, services, and promotions. The authors used the questionnaire to analyze Sandvik's marketing-mix strategy and the customers' demands and satisfaction and questions included evaluation of the company's comprehensive services. The purpose of the analysis of the questionnaires was to get some indication on whether the marketing mix strategy is successful. As shown in the chart in Figure 1, of the 20 customers, 13 customers were satisfied with the marketing product strategy (65%), 5 customers were equivocal (25%) and 2 customers felt dissatisfied (10%). It could be concluded that the Sandvik's customers generally believe that Sandvik has high-quality products and its products feature advanced and innovative product performance.
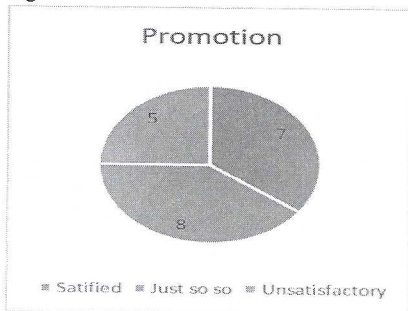
Figure 1
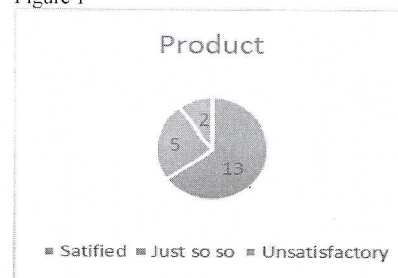
As shown in the chart in Figure 2, of the 20 customers surveyed, 5 customers were satisfied with marketing price strategy (25%), 9 customers were equivocal (45%) and 6 customers felt it was unsatisfactory (30%). It could be concluded that the Sandvik company's customers generally believe that Sandvik has high product prices compared to peer enterprises which could constitute a disadvantage.

Figure 2
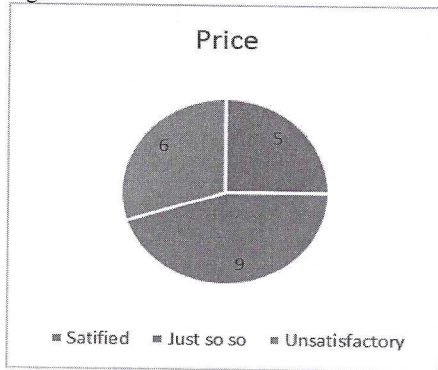
As shown in the chart in Figure 3, of the 20 customers surveyed, 7 customers were satisfied with the evaluations of the discount marketing promotion strategy (35%); 8 customers' evaluation were equivocal (40%). There were 5 customers' who felt it was unsatisfactory (25%). It could be assumed that Sandvik's promotion discount strategy is not bad, but it may have a high threshold (trading volume requires more than 200,000 RMB).

Figure 3

As shown in the chart in Figure 4, of the 20 customers surveyed, 10 customers were satisfied with the evaluation of marketing place distribution strategy (50%); 7 customers were equivocal (35%); while 3 customers were dissatisfied (15%). It could be assumed that Sandvik, mostly through the regional distributors have commonly used products in stock which can be quickly released to the customers. Therefore, it could indicate that the company's marketing place distribution strategy was accepted by its customers.

Figure 4
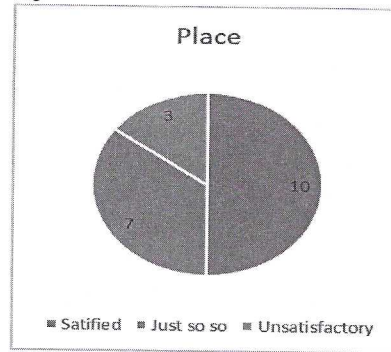
2.2 The Interview

To obtain Sandvik's market information in China, the authors visited the Sandvik's sales manager and the technical manager in the Xiamen area of China. The authors interviewed them with questions about Sandvik marketing strategy issues, as well as the service information and the market situation for Sandvik.

During the interviews, the authors asked how the company maintained its core competitiveness in the Chinese construction machinery market over the long-term. The sales manager believed that the company faced a lot of international competition and the company pushed out high-quality product and a value-oriented product marketing strategy to achieve the dominant position of China's machinery market.

Moreover, Sandvik's pricing depended on the service side. Therefore, Sandvik pays more attention to pre-sales and after-sales service. Sandvik trains the sales staff sales skills, product knowledge, and other knowledge so that the value of the product is sold. After-sales service is to "take the customer as the center" and achieve the timely maintenance of machine tools and after-sales support. "With the products in different life cycle periods, the company does its best to meet customers' demands and improve customers' satisfaction and loyalty".

When we asked how to choose a new product to market, Sandvik's sales manager believed that the design of the terminal is extremely important for construction machinery. Sandvik's sales manager believed that the company uses the distributor sales model, but most distributors have a common product inventory and try to meet delivery time demands of its products.

When they were asked how they carry out the promotion of the products, the sales manager said that the common form of promotion in China was gift-giving. In addition, Sandvik used the average sales profit which allows more profits to be the base price for 200,000 RMB and the profit-sharing rate is 10-40 %.

2.3 The desk research

The authors collected Sandvik's information from the Internet and magazines. The data mainly concerned Sandvik's marketing mix strategy. To collect Sandvik's financial information, the authors

found the company's annual report from the company's official website and the company's financial statements. In 2014, Sandvik's operating profit was 10,120 MSEK, compared to the same period in 2013 the operating profit (8,638 MSEK), increased by roughly 17%. The reasonable prices help to enhance the Sandvik sales revenue. Also, in 2014, the company's revenue was 88,821 MSEK, compared to the year before (87,328 MSEK) was a rise of about 1,493 million SEK (Sandvik, 2014). It confirmed that Sandvik's earnings showed an upward trend when compared to the previous year, which indicates that the development strategy of Sandvik is appropriate.

In 2014, Sandvik continued to develop products and solutions that helped them strengthen their products' competitiveness. Sales developed successfully in several new segments, such as aerospace and energy. Sandvik advanced in emerging markets through an increasing focus on localization of the product and service offerings, as well as an improved mid-market offering (Sandvik, 2014). Close and strong customer relationships also played a major role in Sandvik's aftermarket business. Sandvik strengthened the company's contact with customers and after-sales service and among other things, to maximize customer satisfaction in terms of product and service needs (Sandvik, 2017).

By using the above marketing mix strategies, Sandvik invested more in product innovation and logistics development. These strategies not only increased the company's costs but also affected the price of the products (Stapylton, 2014). At the same time, the development and sale of new products continued to expand the company's market share and market position in the world (Sandvik, 2017). There is no doubt that it may lead to change in the company's marketing mix, to a certain extent, which may affect the company's direction of development.

3. The SWOT Analysis

Taking a panoramic view of the situation, Sandvik focuses on improving product quality and production efficiency. Therefore, its products have good quality and a good reputation. Sandvik's customers emphasis, first on professional service and quality of the product, and cater to Chinese customers real needs for a tailor-made sales and service model. The authors chose the SWOT analysis method to analyze the internal and external environment of the Sandvik Company, as well as using 4Ps to analyze whether the marketing mix strategy is successful or not.

3.1 Analysis of the Strengths

Sandvik's strengths can be regarded as the company's competitive advantage, such as resources, capabilities, and strength which are the company's positive aspects. Sandvik produces high quality, high efficiency and innovative products which are important factors to meet the customers' needs. It is due to the advantage of industrial cutting tools, mining engineering machinery, and materials technology in three fields which are in the world's leading position, and it has a higher market share in the Chinese market (PM-review, 2014).

Sandvik's other advantages are product diversification as the company's products are widely used in automotive, construction machinery, energy, construction, machinery, and other fields (Sandvik, 2017). Sandvik's products cover a wide range of areas and provide customers with the best quality and the most comprehensive products. At the same time, when customers want to involve other areas, the company can provide customers with multi-field and diversified choices and more comprehensive services.

3.2 Analysis of the Weakness

Sandvik's weakness is always the price of the products in China. High input R & D costs and high quality of service costs make Sandvik's product prices often higher than the same industry and the same type of products (Nuclear Engineering International, 2013). High quality makes substantial customers prefer Sandvik's products; however, the higher price makes considerable customers hesitate.

Sandvik's other weakness is that the company provides various fields and diversified products in China. If Sandvik provides customers with various fields and diversified products, the company must incur higher management costs and a complex supply chain (Sandvik, 2017). Therefore, as the company increases investment in the supply chain and the operation process it becomes more difficult to manage.

3.3 Analysis of the Opportunities

A series of major investment projects provided by the Chinese government are perfect opportunities for Sandvik. First, the infrastructure construction projects were launched, to invest about 150 billion yuan in the South to North Water Transfer Project and invest 52.6 billion yuan in the West to East Transmission Project and other major projects have gradually entered the peak period of construction. Market demand for construction machinery such as excavators will increase year by year. The government has increased purchasing of all kinds of construction machinery, such as crushing and screening equipment, scraper, and drills (Sandvik, 2011). China's demand in the field of construction machinery which has greatly promoted the development of Sandvik.

In China, Sandvik's opportunities are focused on the development of electronic commerce and the "Internet plus" pattern of sales. Currently, Sandvik uses the B2B services in E-commerce to achieve automated trading and archiving of key business, so for each transaction, customers can obtain obvious time and the cost savings. In China, the government strongly supports the implementation of "Internet plus" model and the development direction of the company's Shop Online should be closer to market realities, such as 2D, 3D CAD reference patterns and other products and through technical information and related links. For example, customers can send cutting parameters and the correct combination of the blades and the cutter bodies (Hristov, 2017). This is especially important for the development of Sandvik in China.

3.4 Analysis of the Threats

In China, Sandvik is challenged by macro-economic conditions that prevailed during the year. Sandvik has commenced the process

of adopting the company's manufacturing footprint and has implemented activities to release more capital for investment in growth. The development of Sandvik has been resisted because of the threats of the downturn of the international economic situation and the slowdown in the speed of Chinese industrial development (Yin & Chen, 2013).

In China, Sandvik's threats are competition in the same industry and product homogeneity. For example, the most common pneumatic DTH Drill in the construction machinery industry. At present, the Chinese market has various competitors, but copyright is not of a high standard (Bruche & Hong, 2016). In the end, homogeneous products and competition can only be achieved through price and service. It may reduce the company's advantages.

Strengths	Weakness
1. A higher market share in the Chinese market 2.Product diversification 3.High quality, high efficiency, innovative products	1.High price 2.Difficult to manage
Opportunities	**Treats**
1.China development needs 2.Development of electronic commerce	1.Industrial slowdown 2.Product homogeneity

5. The 4Ps analysis of Sandvik

5.1 Analysis of the product

Sandvik's marketing product is committed to the production of high-quality, efficient, innovative products and the company has a good reputation in the industry. At the same time, so that it can meet customer's demand for products and services it is also the development direction of Sandvik.

Sandvik's products cover a wide range of areas, such as automotive, construction machinery, energy, construction, machinery, and other fields. It can provide customers with the best quality and the most comprehensive products to meet customer demands in various fields (Capus, 2016).

Compared to competitors in its industry, the high quality and innovative products are far more competitive than homogeneous products in this industry. Because some competitive companies like Seco and Iscar have a similar level of technology, Sandvik through a wide range of products attract more customers (Konrad, 2017). Furthermore, production efficiency, and research and development of high quality and innovative products enhance the reputation of the product and in turn enhance the company's goodwill and provides an important material guarantee.

5.2 Analysis of the price

Sandvik uses different pricing strategy. Sandvik's price is generally high but the price is more impressive. As the world's leading machinery manufacturers and service providers have rich experience in customized services and solutions. Sandvik implements marketing price strategies oriented to the needs of customer's, thinks from the customers' perspective, reduces the downtime costs to the customer, and realizes profit maximization. Sandvik's strategy developed through a series of value-added and cost-cutting strategies and the annual cost savings for global customers created more than 200 million Euros (Sandvik, 2016). Differentiated pricing strategy will be clearly distinguished Sandvik from ordinary companies in the same industry which helps the company gain market and competitive advantages.

5.3 Analysis of the promotion

Sandvik takes the marketing promotion strategy based on the relative discount of the customer level. In the Chinese market, the common form is to provide gifts. In addition, Sandvik used the average sales profit and allows more profits to the base price of 2 00,000 RMB and the profit-sharing rate is 10% - 40%.

Sandvik uses the Internet marketing model to implement its promotion marketing promotion strategy. In China, Sandvik by Sina Weibo has rich content in order to help customers timely understanding of cutting-edge research and development of new products and share successful experience for problem solving schemes and prospectively grasp the latest trends in the industry. Additionally, Sandvik uploaded nearly 75 animations and videos on YouTube and show the company's various types of application of knowledge and technology solutions (Sandvik, 2013).

Sandvik uses live demonstrations in order to attract customers and this allows the user to give priority to experienced equipment suppliers. In China, some high-end and advanced equipment are very few, such as mobile crushing equipment. This will allow customers to learn more about this type of equipment.

5.4 Analysis of the place

In China, Sandvik's most important marketing place is the support and management of distributors. Sandvik has a series of strict standards for distributors and the distributors bottom line for annual sales reached 3 million RMB. Sandvik attaches great importance to the distributors' strength and require distributors have their own warehouse and reserve a certain number of common products, such as universal lathe tools and milling cutters and the advantage is faster supply of customer replacement and maintenance products. In addition, Sandvik carries out systematic training for distributors every year (Sandvik, 2012). Excellent distributors help the company to better product sales, as well as the establishment of efficient distribution channels.

In China, another Sandvik's part of marketing place is the introduction of a new booth design concepts every two years and holding media conferences. For example, in CCMT2012 a Sandvik press conference in the Sofitel Galaxy Nanjing Hotel, allowed the authors get information from the company's official website. Large press conferences are a huge information exchange window for

many potential customers. Through the company's own booth, the company's image can be fully displayed and strengthened. These new introduction methods help people who need these products know Sandvik (E&MJ News, 2014). This is conducive to the success of Sandvik Company in the Chinese market.

In China, Sandvik's marketing place strategy gradually joined the e-commerce sales model, such as the B2B service model. Currently, the Sandvik uses the B2B services in E-commerce and are able to achieve automated trading and archiving of key business activities. The E-commerce model can shorten the sales channels and reduce the cost of middlemen so that the customers can save time and costs. To a certain extent, E-commerce model can reduce the rate of error. E-commerce sales models for the development of Sandvik is very important in China (Sandvik Coromant, 2017).

6. Conclusions and recommendations

This paper used the 4Ps to analyze the Sandvik's marketing mix strategy in terms of product, price, place, and promotion. It also employed the SWOT model to analyze the company's strengths, weaknesses, opportunities, and threats. And it analyzed the attitudes of Sandvik's internal customers including the managers of the company, external customers, and shareholders of the company.

Sandvik uses a reasonable marketing mix strategy which can bring better development. Sandvik adheres to a marketing products strategy which produces high quality, high efficiency, and innovative products. It is conducive to improving customer satisfaction, as well as the protection of the company's good reputation. At the same time, Sandvik produces diversified products in order to enhance the company's ability to guard against risk and expand the company's product coverage and increase the company's development opportunities.

Sandvik uses a differentiated pricing strategy and it is conducive to highlighting the company's product advantages and distinguishing its products from other industries. Higher product prices can provide a material guarantee for the company to further develop new products. Sandvik implements the customer's needs oriented marketing price strategy, from the customer's point of view to think and reduce the cost to the customer and guide the customer demand and realize profit maximization.

Sandvik uses the marketing promotion strategy of the customer classification discounts which helps promote the fair development of the market and to meet the psychological requirements of customers. At the same time, Sandvik through the network showcases new products, as well as to provide services and this is conducive to the development of the company's Shop Online and is closer to market needs.

Sandvik uses a marketing place strategy to support and manage distributors and help the company move faster into various regions of the market. High demand and high standard of distributors is an important partner of Sandvik's sales. Sandvik uses the electronic commerce pattern and it is helpful in saving time and manpower

costs and is in advance with the times.

Through the analysis of the company's SWOT, which can help Sandvik to do a good market position and it can make the company stand out in the competition of the market. Sandvik's strengths is its a high quality, innovative and diversified products in order to cover more markets. In China, Sandvik's opportunities are that it implements the model of e-commerce and as the Chinese government develops the 'Internet plus' model it will help the company get more support from the government. In addition, a series of major investment projects provide Sandvik with opportunities by the Chinese government. Sandvik's threats are a weak awareness of the rights of Chinese enterprises and product homogeneity is very serious and the price war led to the company's profits being affected in the same competitive industries.

Sandvik can meet the needs of the company's external customers by producing high-quality, high efficiency, and innovative products. Sandvik's high standards of products and services can meet customers in the physical and psychological needs and it can also enable the company's shareholders to obtain substantial gains. In addition, Sandvik can meet the needs of the company's internal customers. Through a reasonable marketing mix strategy managers achieve better management of the company's market, as well as through the SWOT analysis method for the development of the company which can make for more reasonable market planning and is conducive to better development of the company.

Through this investigation and we have gained some understanding of the Sandvik marketing mix strategy, and we cautiously put forward some suggestions for the development of Sandvik. Firstly, the sample of customers we interviewed was very small and may not have been representative of the views of their vast and diverse customer base. It is recommended that a more substantial customer survey should be implemented to more confidently understand their needs. Secondly, Sandvik's products have a multifaceted design field and it may not instill customer confidence. At the same time, it is not conducive to the good management of the company. Therefore, we suggest that Sandvik should integrate product areas and focus on the development of competitive products and improve the company's production management. Thirdly, Sandvik's product prices are generally high, and this is because of the product quality, service, technology, and other factors, but the high value-added products may not suit all customers' needs. The company should focus on the needs of customers and produce the appropriate production of some low value-added products. At the same time, the company should ensure quality and give customers a more acceptable price range to attract more customers.

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The Link between Chinese Traditional Family Rules and Article 1043（1）of the Civil Code

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Abstract: In this paper, the combination of the rule of law (the civil code) and the rule of virtue (customary law) is highly recommended as an effective way to construct the rule of law in socialist China. This paper is a historical study of the linkage between Chinese traditional family rules and Article 1043(1) of the Civil Code, which embodies the combination of rule of law and rule of virtue. By reviewing Chinese traditional customary family law, it was recognized that establishing good family style, carrying forward family virtues and attaching importance to the construction of civil family relations are not only the absorption and transformation of the best of traditional family rules, but also a response to the construction of an advanced Chinese socialist civil society. It was also found that to articulate rules of virtue in the civil code not only hopes to improve the moral level of citizens, but also to ensure adherence by enforcement of the law. The author argues that traditional family rules and civil family relations in the new era should have their own development path, foundation in tradition, performance and function, and there is a need to carefully examine the corresponding value of the traditional Chinese "rule by virtue and law".

Key words: Rule of law, rule of virtue, family civilization, Chinese traditional family rules, Article 1043 (1) of the Civil Code

1. Introduction

The family is the cornerstone of society, and family virtues, not only cultivate individual development, but also promote national progress. The recently published Article 1043 (1) of the Chinese Civil Code of Marriage and Family indicated that "the family should establish a good family style, carry forward family virtues, and attach importance to the construction of civil family relations" , which is a highlight of the civil code (Yang, 2020). This is the first clause in the Chinese private law field that embodies a combination of the rule of law and rules of virtue. However, there is little research which explains the linkage between traditional family rules and Article 1043(1). This paper aims to understand the Chinese legal history from Chinese traditional family rules to the enactment of Article 1043(1) of the Chinese Civil Code, and to explore the corresponding value of the traditional Chinese "rule by virtue and law".

2. Review of Chinese Traditional Family Rules

2.1 The history of traditional family rules

Family rules, to a certain extent, meaning "customary family law and rules", refers to "the code of conduct within the family to maintain the normal order of the family, and its purpose is to restrain the family members", and it formed an important mediation basis for the settlement of family disputes (Liu, 2016). Family rules existed prior to the existence of the state; since the beginning of clan society, there has been the rudiment of family rules. The "patriarchal clan system" in the Shang and Zhou Dynasties was the extension of family law and clan rules. At that time, criminals could be killed in their own clan. The wars during the Warring States period and Qin and Han Dynasties caused great damage to the original family and clan structures. In addition, the law of Qin was complicated, and the family rules were obscured. After the Han Dynasty was reestablished, some parents began to make rules to conduct the behavior of the members of their families, such as "Ren Gong Jia Yue" including "No food or clothing is allowed if it is not planted or cultured by oneself; no alcohol or meat is allowed if the official business is not completed" ("Shiji·Huozhiliezhuan"); after the middle of the Western Han Dynasty, the word "family law" began to appear. However, most of the family rules in the Han and Wei dynasties have disappeared and few have been collected. Fei Chengkang (2002) indicated that the family rules played a role to a certain extent in the role of "letter of refuge in life" and "scholars and bureaucrats in troubled times have written down their accumulated life experiences in order to enable their descendants to survive in a dangerous environment as a textbook to guide their children and grandchildren to live in the world", therefore, the war-torn Northern and Southern Dynasties formed an upsurge in building family rules. "Yan's family precepts" became a model of family rules in the middle ancient times, and "family law" and "ritual law" began to be confused, which continued into the Tang Dynasty when "rites and laws were integrated" and "rites into punishment". With the development of Neo Confucianism in the Song and Ming Dynasties and the strengthening of feudal autocracy, the family rules in the Ming and Qing dynasties became a sharp weapon of feudal ethics. After the reform in the late Qing Dynasty, the advocacy of "individualism"

surpassing "familyism" was stripped away as a chronic disease of history.

2.2 The content of traditional family rules and their value in the construction of civil family relations

In terms of the origins of traditional family rules, the traditional Chinese farming civilization gave birth to an immature legal system and fixed penalties. Family rules, which were aimed at pursuing the prosperity of the family and the national law for maintaining social stability were consistent in purpose. Therefore, the connotation of traditional family rules was gradually unified into Confucian ethics with the core of "three cardinal principles and five constancies", which are characterized by family rules and social norms. In the early stage of feudalism, admonishment was the content, and later, punitive provisions were added. As far as Chinese traditional morality was concerned, there were differences among temperament, morality, ethics, and reason (Chen, 2020). Traditional family rules were integral to it. For example, in the family law of Yimen Chen family in Jiangzhou, "the inner part of the family is to maintain good relations with nine ethnic groups, to make peace with the upper and lower levels, and to restrain the younger brothers and nephews", "outside, they welcome relatives who were married and treat guests with courtesy" (Fei, 2002); "The sequel of Qian Liu" emphasizes "loyalty and filial piety, love of soldiers, and respect for the people" (Fei, 2002); more typical is "the family precepts of Zhang family in Yanbu, Shangyu", which sets out the ways to inherit, prosper, settle down, prevent, perish and defeat the family, and strengthen filial piety to parents, be good with friends, brothers and other kinships, educating sons and grandsons, integrity and diligence to one's duty, advocating thrift, encouraging honest communication, modesty and humility and so on (Fei, 2002). Family rules not only emphasized personal virtues such as being sensible, honest, loyal and kind, but also emphasized the principles of benevolence, righteousness, propriety, wisdom, and faith. Ethics and morality were related to the dimension of family relations and social interpersonal communication, namely, what the great Confucian Dong Zhongshu called "to pacify people with benevolence and justice" (Dong,1989). As far as the importance of family rules is concerned, it cannot be ignored that the three aspects of father-son, brother-brother and husband-wife in the traditional five cardinal Confucian relationships emphasized the family relationship. Only a family with regular family rules, good family education and family style can cultivate people with both moral integrity and ability and can inherit and live the noble morality from generation to generation. To examine these family rules, social norms, clan conventions and family prohibitions, there are some rules that certainly should be abandoned, such as the maintenance of the three cardinal principles by the traditional family rules which are not suitable for the current state system of the people's democratic dictatorship. And there are considerable rules which are advisable to retain, such as benevolence, righteousness, diligence, thrift, and harmony. In today's Cultural Renaissance, how to realize the creative transformation of high-quality traditional culture is a major issue we are facing together.

3.The course and content of good family style, family virtue and family civilization construction

3.1 The course of good family style, family virtue and family civilization construction

As mentioned above, after the Opium War, China was in confusion and introspection. For a long time, the maintenance of family morality was missing. After the founding of the People's Republic of China, the party and the state have devoted themselves to the construction of public and private morality. For example, Article 24 of the 1982 Constitution clearly stipulates that the country strengthens the construction of socialist spiritual civilization by popularizing ideal education, moral education, cultural education, discipline and legal education, and by formulating and implementing various codes and conventions among the masses in urban and rural areas. From the perspective of this fundamental law, moral education is regarded as an important part of the construction of an advanced socialist spiritual civil society. In 1996, "the resolution of the CPC Central Committee on several important issues for strengthening the construction of socialist spiritual civilization" explicitly divided "moral education" into three parts: social morality, professional ethics, and family virtue. So far, the content of moral education of socialism with Chinese characteristics has been determined (Communist Party of China,1996). It has become an important foundation of family virtue. In 2001, the implementation outlines of citizen moral construction pointed out that "family virtue is the code of conduct that every citizen should follow in family life, covering the relationships between husband and wife, the elderly and the young, and the neighborhood" (CPC Central Committee, 2001). It also emphasizes the love between husband and wife, the relationship between the elderly and the young, and the friendship between neighbors, "which is not only related to the happiness of each family but is also conducive to social stability and harmony". In 2019, the implementation outlines of citizen moral construction in the new era (CPC Central Committee, 2019) further points out that it is necessary to provide legal support and policy guarantees for the construction of citizens' morality. General Secretary Xi Jinping also learned from the traditional culture of China, starting from the fine family tradition and growing experience of the individual, emphasizing family, family education and family style construction many times. He pointed out that the traditional family virtues of the Chinese nation are precious spiritual wealth for the construction of civil family relations (Xi, 2016). Family, family education and family style are the starting points of General Secretary Xi Jinping's important exposition on family virtues, which aims to foster virtue through family ethics and family education.

3.2 Content of civil family construction and reflections on traditional family rules

Since the establishment of the civil code, that the appeal of the legal history of marriage and family structure should absorb the best

of traditional family culture has never ceased. Although the compilation of the various parts of the civil code is controversial (Zhang, 2020), now it is a fact that marriage and family part are independent. Article 1043 (1), as a general rule, plays an important guiding role in the construction of family relations. The objects of restriction are husband and wife, parents, children and other close relatives or family members. This provision arises both from the necessity of history and the feasibility of today's legal construction. "The essence of its regulation is not only to realize individual freedom and value, but also to ensure the perfection of family human relations order and the realization of family happiness and peace" (Zhang, 2020). We should pay attention to the idea of family education. This is an effective combination of the best of traditional Chinese culture and modern legal practice, which embodies the special attributes of the rule of law and morality. "The foundation of the world is the country, and the foundation of the country is the home". Home is the attachment of the human soul, the unit of social relations, and the most valuable traditional resource in China. "To take seriously the legal status of the family in the civil code and realize the legalization of the family is the major mission of compiling the marriage and family civil code"(Li, 2017).

The specific content of this clause covers three aspects: good family style, family virtue and civilized family relations, which has a progressive relationship. The so-called good family ethos is the influence of family members' words and deeds on people. Therefore, only by advocating the establishment of a good family tradition and educating family members to develop good personal habits and moral cultivation, can we establish an equal, harmonious, and civilized marriage and family relationships. Secondly, we should carry forward family virtue, which is an important force to promote the construction of civilized family relations and the development of social civilization. There are many resources for reference in Chinese traditional morality, such as advocating honesty and trustworthiness, diligence and thrift, filial piety, and good neighborliness in some family rules. Carrying forward family virtues is helpful for family members to distinguish right from wrong, to be positive, to ensure the harmony and happiness of marriage and family, and to promote the progress of social moral civilization. Finally, the construction of civilized family relations is an effective way to consolidate the socialist marriage and family system, and an important guarantee for the equality, harmony and friendly of family relations. The construction of family civilization permeates all aspects of marriage and family. The first content of family civilization construction is that husband and wife are "faithful to each other, respect each other, care for each other", and have the obligation to support each other; the second is to support, educate and protect the minor children together, support and help the elderly and other family members. Its center is to deal with the relationship between husband and wife, parents and children and other close relatives, "respect the family members' personality equality, personality independence, personality freedom and dignity,

safeguard the personal rights and property rights and interests of family members, and jointly build a free, comfortable and warm family environment"(Wang, 2020).

Above all, we will find that it has gone beyond the spirit and connotation of the traditional family rules and is a new morality growing along with the socialist social construction. Democracy and equality should be included in socialist countries. The class nature of feudal family rules has long been out of touch with today's national conditions, so we must look at it in two ways when we draw lessons from it.

4. Achievements and experience of "combining rule of law with rule of virtue"

4.1 The Traditional Chinese "rule by virtue and law" and current "combination of rule of law and rule of virtue"

Hitherto unknown, "the combination of ruling the country by law and ruling by virtue" is an unprecedented theoretical innovation of the party's leading collective based on China's reality. Xi Jinping (2017) pointed out that "one distinctive feature of China's socialist road of rule of law is to adhere to the rule of law and rule of virtue, emphasizing the rule of law and rule of virtue, and both hands must be hard". It is also an important principle of contemporary China's rule of law strategy and an important content of the construction system of China's rule of law.

In traditional China, since the Western Zhou Dynasty, it has been advocated that "rites, music, politics and punishment should be integrated for governance". The book of rites of the Zhou Dynasty contains the following six virtues: "knowledge, benevolence, holiness, righteousness, loyalty and harmony" (Zhou Li· Di guan· Dasitu), which were used to teach the people. Confucius also said that "guide them by virtue and unify them with rites". The ancient sages expounded the theory of "rule by virtue and law" so that it became more and more perfect. All dynasties also practiced the strategy of "rule by virtue and law". The traditional Chinese "morality and law complement each other and govern together" is constant and cyclical. "It reflects the distinctive moral and legal views of ancient China, and also highlights a unique legal tradition" (Zhang, 2019). The idea of" mutual complementation of morality and law and common governance "can be reflected in the legal practice of "adhering to the combination of rule of law and rule of virtue ". While respecting the law and relying on the law to adjust social relations, it is also necessary to strengthen the function of moral persuading good and punishing evil, and constantly improve people's moral quality and self-control through external norms and internal constraints to achieve interpersonal harmony.

In terms of the current practice of "combining the rule of law with the rule of virtue", on the one hand, we should realize the coincidence and difference between law and morality. Morality and law are two different social norms, both of which can play a role in regulating human behavior. They have their own unique functions and limitations. However, the compulsion of law and the spontaneity

of morality enlighten us that "we should adhere to the combination of rule of law and rule of virtue" to achieve "the combination of hardness and softness". On the other hand, the authority of law and morality lies in practice, that is, only when the public consciously abide by them, can they play an effective role in governing the country. The traditional Chinese practice of "guiding rites into punishments" appropriately shows that law-abiding embodies the minimum moral limit. In the compilation of "general regulations" for marriage and family advocate good family style, family virtue and civilized family relations, which is a strong appeal to Chinese people to improve their virtue. As we all know, the higher the moral level of a society, the stronger the awareness of abiding by law, the higher the degree of realization of the rule of law, and the greater the possibility of building a society ruled of law. In addition, law and morality will also change with the development of history. When facing new problems, old morality and old law must be transformed in a timely manner or thoroughly reformed to achieve the effect of good national governance. While advocating for the modernization of national governance capacity and governance system, how to deal with the relationship between rule of virtue and rule of law is not only the task of building a country ruled of law, but also a challenge to realize the great rejuvenation of the Chinese nation. Only by establishing a good moral standard system and a complete legal system, and improving the operational mechanisms of morality and law, can we truly realize good law and good governance. Therefore, in the practice of comprehensively promoting the rule of law, our country should always emphasize the relationship between the rule of law and the rule of virtue, and strive to make the rule of law embody morality, nourish the legal system, and promote the close combination of the rule of law and the rule of virtue. We should promote the rule of law and morality and realize national governance.

4.2 Paying attention to problems in the process of modernization transformation of traditional resources

Of course, while drawing lessons from the best of traditional Chinese culture, we should also treat the traditional Chinese "rule by virtue and law" dialectically. First of all, the idea of "rule by virtue and law" is to restrain people with the ethics and morality advocated by Confucianism, and the dross in Confucianism should be discarded in the learning process, such as the maintenance of the three principles of traditional family rules. Secondly, there are consistency and conflicts between traditional Chinese family rules and the country law, and in the context of contemporary rule of law, we should deal with the relationship between the two norms. Thirdly, traditionally in China morality and law were regarded as the means of governing the country, and this kind of instrumental values are also incompatible with the practice of contemporary rule of law. Dr. Sun Yat Sen has long asserted that the rule of law should be the quality of the country and the characteristics of the times. Only when we truly regard the rule of law as the proper meaning in the socialist context, should the rule of law become the quality of the country and the characteristics of the times, Only then can we truly become a country ruled of law.

5. Conclusion

The advocacy provisions of establishing good family style, carrying forward family virtues and attaching importance to the construction of civilized family relations in marriage and family composition reflect the response of the civil code to the combination of rule of law and rule of virtue and the promotion of socialist core values. In a sense, it is a transcendence of the traditional family rules. The purpose is to make the family as a social cell unbreakable and realize the great rejuvenation of the Chinese nation. However, the social nature of traditional China is totally different from contemporary China. There is consensus and many differences in the treatment of morality and law relations. The traditional family is not comparable to today's nuclear family, and the traditional family rules cannot be mechanically copied. On the one hand, we should pay attention to carry forward the traditional virtues and maintain public order and good customs; on the other hand, we should have an eye on the overall coordination of the rule of law and the rule of virtue, improve the comprehensive application of the two to the greatest theoretical level for the construction of the rule of law and the modernization of national governance, and earnestly practice this principle.

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Perspective of the Current Situation of the One-Village-One-Legal -Advisor System: A Case Study

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Abstract: The one-village-one-legal-advisor system is a judicial system with Chinese characteristics, which aims to effectively solve the practical problem of the relative shortage of legal resources below the county level and meet the increasing demands of village people for legal services. A case study was undertaken to explore the operational status of the one-village-one-legal-advisor system in Xiangtan City, Hunan Province, China. It was found that the system has made considerable improvements such as using government-led mechanisms to reduce the risk of supply and demand imbalance. But some problems still exist in the supervision and assessment mechanisms and insufficient publicity leads to a lack of awareness. The authors argue that it is necessary to complete a legal consultant system based on multiple thinking and multiple perspectives; only by strengthening legal systematization and flexibility, refining the supervision and examination mechanisms, and improving the publicity, can the system fully function in its application.

Key words: One-village-one-legal-advisor system, legal services, legal needs, case study

1. Introduction

The rule of law at the grass-roots level in rural China is a hot topic that has been discussed for a long time. From "sending the law to the countryside" to "welcoming the law to the countryside", the Chinese government has made an concerted effort to solve the problem of the lack of legal resources in rural areas and building a country ruled by law (Cao, 2017). Since the Ministry of Justice issued "Opinions on Promoting the Construction of Public Legal Service Platforms" in August 2017, the one-village-one-legal-advisory system has been promoted throughout the country as a new system with Chinese characteristics, which aims to meet the actual legal needs of the people and encourage the implementation of rural revitalization strategies (Ministry of Justice, 2017).

For a long time, when the term legal consultant is mentioned, people often think of corporate legal consultants, government legal consultants, but rarely mention village legal consultants. Even when talking about village legal consultants, people often take for granted that village legal consultants are just for the village committee. However, for the one-village-one-legal-advisory system, practicing lawyers serving as village legal counsel and providing legal services to villagers and village committees for free, seems to be a very weak concept and phenomenon in the public's imagination. This phenomenon interested the authors and prompted them to investigate the effect of the implementation of this system and to find the problems with the implementation of the system.

Chinese scholars (e.g. Shao, 2019; Chao, 2017; Feng, 2017) conducted research on the issues related to the one-village-one-legal-advisory system. Some scholars discussed the main obstacles of the system based on relevant government documents and reported cases in various provinces including insufficient allocation of funds, insufficient attention from local governments and villages, and believed that it should be improved at the national level (Cao, 2017). Some scholars (e.g. Shao, 2019) reflected on the system based on the system's operating model and values. Established to investigate the status quo of rural legal services in the certain area, some scholars (e.g. Feng, 2017) insisted on a government-led establishment of a public legal service system. However, these discussions did not examine the opinions of the four types of groups most closely related to the system. In particular, it examined villagers as recipients, participants and beneficiaries of the system, but few researchers surveyed whether the government-led system really satisfied the villagers' legal service needs, and thus it cannot really explore the functional effectiveness and implementation difficulties of the one-village-one-legal-advisory system.

2. A Brief Note on the Research Method

This article is a report of a case study taking Xiangtan City, Hunan Province as an example of the one-village-one-legal-advisory system. The authors conducted document reviews and a field investigation on the implementation status of the one village and one legal consultant system in the area. They adopted questionnaire surveys and visited villagers, so that investigate the acceptance of the system and collect and feedback the opinions of the masses. By combining interviews with legal consultants, village officials, and grassroots judicial staff, they tried to understand it from the perspective of the four stakeholders, to see the current status of the

implementation of the system, and put forward some new analyses, especially the operating mechanisms, supervision mechanisms, and evaluation mechanisms of the one-village-one-legal-advisory system.

3. The Preliminary Results of the Case Study of Xiangtan City

3.1 Document reviews of the one-village-one-legal-advisory system

According to the Constitution, laws, regulatory documents and policies, the current one-village-one-legal advisory system in China is a way of top-down funding by the government, guiding village legal consultants to sign contracts with villages, and the legal consultants providing legal services to villagers. The function of the system is to solve the practical problem of the relative lack of legal resources in areas below the county level, so as to meet the growing demand for legal services by village people.

At the constitutional level, on the one hand, it stipulates that the state is obliged to establish a social security system and provide social public services in the corresponding fields; on the other hand, it substantially stipulates the basic rights of citizens, thereby clarifying the state's obligation to provide public services and ensuring the basic rights of citizens. However, for a long time, rural public legal services have remained absent, since the demand for legal services in rural areas in China is relatively small, and far less than that in urban areas. With the rapid development of economic construction, the shortage of public services, especially the shortage of legal services, has gradually exposed social problems. The report of the 19th National Congress of the Communist Party of China, President Xi (2017) pointed out that "the main contradiction in our country has been transformed into a contradiction between the people's growing need for a better life and unbalanced and inadequate development." In response to the changes in the country's national conditions, it is indeed necessary to change the associated functions of public services from "survival care" to "security and development". (Chen & Xun, 2019). In January 2017, the "Thirteenth Five-Year Plan for Promoting Equalization of Basic Public Services" (promulgated by the State Council) clearly stated that "by the end of 2018, the full coverage of village (residential) legal consultants will be basically achieved nationwide" (Xinhua, 2017). The report of the 19th National Congress of the Communist Party of China further pointed out that it aims to "strengthen the construction of community governance systems, promote the downward shift of social governance to the grassroots level, play the role of social organization, and realize the benign interaction between government governance and social regulation, and residents' autonomy" (Xi, 2017).

At present, as a legal system with Chinese characteristics, the one legal adviser per village system is based on the constitution, laws and policies, is always rooted in Chinese national conditions and is produced and developed in accordance with China's social and economic changes.

3.2 The preliminary results of the case study in Xiangtan City

In July 2018, Xiangtan City issued the "Implementation Opinions on Carrying out the Work of 'One Village (Community) One Legal Consultant'". Through government funding lawyers signing contracts with each village (community), the city's valuable lawyer resources were coordinated. As at the end of October 2018, 966 villages (communities) in Xiangtan City had signed legal advisory contracts with 30 law firms, and 330 lawyers formed a legal service WeChat group, which was the first city to realize the "One Village (Community) One Legal Consultant" system in Hunan Province (Xiangtan Justice Bureau, 2019). According to the statistics, since the signing of the contract in late October, the city's village (community) legal advisers had answered more than 7,000 inquiries, drafted and revised more than 300 contracts, handled more than 50 legal aid cases, and participated in the discussion and mediation of more than 300 case disputes (Hunan Provincial Department of Justice, 2019). Based on these data, it was found that Xiangtan City has made a great effort to promote the system.

To undertake a field work, the authors met Law Firms, Judicial Bureaus, and Villages in Xiangtan County, Hunan Province. When discussing the dispute resolution by legal consultants, the practicing lawyers who served as legal consultants from Qinrenpo Law Firm mentioned that in response to conflicts and disputes that have not been resolved for many years, the participation of legal consultants provided solutions that had obvious effects, and its biggest advantage lay in professionalism. Although the impressions of several legal consultants were not universal, they can still serve as a microcosm of the experience of practicing lawyers as village legal consultants participating in the implementation of the system. The village directors of Fancheng Village and Hongxing Village, the staff of Wanlou Street Judicial Office, and the person in charge of the Legal Aid Center of the Yuhu District Judicial Bureau agreed they were not as professional as practicing lawyers in providing certain legal consulting services and resolving disputes. Especially when dealing with land acquisition and demolition disputes and land contracting and management disputes, it was often necessary to cooperate with practicing lawyers. This was also confirmed by the law firm's village committee, judicial office, and judicial bureau cooperating with each other, highlighting the professional advantages of practicing lawyers as legal consultants and achieving certain results.

Based on the above analysis, it was found that since the implementation of the one-village-one-legal advisory system, the Xiangtan law firm cooperated with the village committee, the judicial office, and the judicial bureau. The practice has achieved certain results, mainly reflected in the following: Firstly, it has promoted the harmony and stability of the rural grassroots society. The village legal counsel provided legal advice for major, sensitive disputes and mass cases, and successfully resolved a series of

disputes such as land acquisition and demolition, land contracting, etc. It also resolved the rural grassroots conflicts and disputes and reduced the petition rate and the incidence of mass incidents. Secondly, it has strengthened the legal awareness of the grassroots cadres. Legal consultants regularly entered the village and the community every month to provide legal services, provide legal consultations, hold lectures on the rule of law, etc. Therefore, the grassroots people cadres' awareness of "seek legal counsel first if they have legal problems" is gradually forming.

4.Difficulties Encountered in the System

North (1994) puts forward the basic concept of systems in the opening chapter of his book "Systems, System Changes and Economic Performance": "Systems are the rules of a society's game, or to be more standardized, they are designed by some people to shape the interaction between people. Therefore, the system constructs incentives for people to exchange in the political, social, or economic fields." According to mainstream game theory, in the process of system construction, all stakeholders will strive to maximize their interests. As a relatively systematic example, the one-village-one-legal-advisory system is directly involved in the constructive interaction of four main stakeholders including the village legal consultant, villagers, village cadres, and judicial staff. Among them, the villagers are the basic consumers. It can be said that this system is "tailored" for the villagers. What interested the authors was how the villagers, as recipients and beneficiaries of this system, reacted to this government-led system? Does this system meet the actual needs of the villagers? The wishes and behaviors of stakeholders are often overlooked in the analysis of the one-village-one-legal-advisory system, but it is a critical part. Therefore, the personal feelings of the four types of groups participating in the implementation of the system are integrated, especially the supply and demand relationship between the government and the villagers, which may shed light on the difficulties in the implementation of the system in Xiangtan City.

4.1The risk of imbalance between supply and demand

The essential feature of the one-village-one-legal-advisory system lies in being government-led, whether it is the government's funding to purchase legal services for villagers, guiding the village committee and counterpart professional lawyers to signing the employment contracts for village legal consultants, or the government supervising the village legal consultants to perform their duties. The operation of these systems all reflects the overall planning and dispatch of the government. Undoubtedly, the government-led advantage is that it can quickly promote the system, save time and cost, and encourage the villagers to enjoy legal services more conveniently. But the government-led model also faces embarrassing practical dilemmas, the most difficult of which is the risk of an imbalance between supply and demand. According to institutional economics, the government-led model may cause deviations between the legal services provided by the government

and the needs of villagers in practice (Liang, 2012). Although the one-village-one-legal consultants system is a system based on real problems, it is not spontaneously generated by the village, not a product of villagers' self-government, but is designed by the state and its enforced implementation by the state. No matter how the government stays close to the people, it cannot fully understand the real needs and cannot meet the requirements in all respects. And the government needs to maintain its authority and guarantee its enforced implementation, so there may be a distance between the government and the people. Especially in rural areas, due to the entrenched rural order, local legal culture and other reasons, villagers tend to be closer to the village committee, and more or less resist the legal culture under the leadership of the government, and there is a more distant relationship with the government. Alienation by such distance is highly likely to lead to an imbalance between supply and demand. Moreover, the top-down implementation mechanisms are often not flexible enough, rigidly copying the content of the higher-level government and ignoring the inherent habits and customs of the local villages. Even constructive suggestions often evolve into mandatory regulations, leaving villagers and legal advisers with little room for innovation. Coupled with a speed of implementation that is too fast, the villagers' ability to accept and an insufficient degree of acceptance, and the legal system itself having the characteristics of being conservative and authoritative, so the implementation of the legal system will also be unsettled. In addition, the survey found that many lawyers serving as legal consultants participated in the local legal-aid work at the same time. Although they belonged to each project, they belonged to the same department or were even managed by the same person. Based on this fact, it meant the duplication and increased complexity of work content, and the waste of human resources, resulting in inefficient implementation of the system. Combined with other projects found in the survey, it was learned that the village legal counsel are relatively young compared with other legal support, and there were no other projects in terms of specific matters that made it clear at a glance. Starting from the overall level of building and improving the legal system, the village legal advisers did make up for the shortcomings in the field, but compared to other parts of the system, the implementation year is not long enough, and it is not the focus of publicity.

4.2The imperfect supervision and assessment mechanisms

The second point that affects the effectiveness of the system is the supervision and evaluation mechanisms. The imperfect supervision and assessment mechanisms in procedures and systems seems to be a long-standing "difficult and miscellaneous disease." During the on-site investigations, the villagers expressed their concerns and distrust of the legal advisers. Some villagers reported to us that some village legal advisers were inadequate in their work such as perfunctory legal consultations and prevarication with the villagers. Although Xiangtan City established supervision, assessment, and evaluation mechanisms, they are not yet sufficient and specific. There are considerable ambiguities, and its rationality

and effectiveness need to be further improved.

Firstly, although the "Implementation Opinions on Carrying out the Work of 'One Village (Community) One Legal Counsel'" issued by the Xiangtan Municipal Party Committee and the Xiangtan Municipal Government pointed out that the judicial bureau and basic judicial offices have the responsibility for the management and supervision of the work of the legal consultants. But how to manage the work of consultants in a specific way needs further guidance from decision-makers, and there is currently no municipal-level assessment, reward and punishment mechanism (Xiangtan MPGO, 2018). Secondly, in accordance with the "Implementation Opinions on Carrying out the Work of 'One Village (Community) One Legal Consultant'" issued by the Xiangtan Municipal Party Committee and the Municipal Government, the legal consultants will serve in the village no less than 8 hours per month (Xiangtan MPGO, 2018). Effectively, the village legal counsel and the village committee agreed in the service contract for the lawyer's monthly service time to be at least eight hours (Xiangtan MPGO, 2018). In interviews with several village legal advisers, they all believed that the contract agreement lacked rationality and ignored the work characteristics of the lawyers themselves. When interviewing a staff member of the Bureau of Justice, he admitted that the hard and fast rules about lawyers' working hours in the documents were open to question. Indeed, lawyers have strong work mobility and flexible working hours. The requirement of fixed time periods and continuous residence in the village may not meet this characteristic but may lead to a decrease in the work efficiency of professional lawyers themselves. Thirdly, regarding work on the establishment of WeChat groups. The publicity of content may be more convenient internally, but after all, it is not a formal publicity channel, and this situation may be difficult to match the current situation of the elderly and left-behind children in rural China. The elderly and children do not use WeChat functions everywhere. As a result, it is difficult for this system to play a substantive role; fourthly, during the investigation, it was found that due to the differences in geographic location of the villages, there were also certain regional differences in related legal issues, which greatly increased the probability of occurrence of similar cases. Most of the systems involve administrative planning issues, which puts forward higher requirements on the professional level of lawyers, and compared with grassroots organizations such as village committees, lawyers are weak in individual power and cannot grasp the initiative, which undoubtedly increases the difficulty of work .

4.3Insufficient publicity

The lack of promotion by the government and village committees restricts the promotion of the system. Firstly, the publicity method is too limited (The Research Team, 2019). The survey data shows the kind of publicity methods the village used to publicize the system and that most villages have adopted such methods as providing and distributing the rule of law publicity manuals and using oral publicity. And another related question is

how villagers are used to receiving legal information. The survey data shows that with the development of information networks, the way that villagers receive legal information tends to be legal columns and news reports on TV or network platforms, and the way that villagers accept the rule of law propaganda is more dependent on network platforms or TV programs. From this, it is found that the village committee, as the main propagator of the system, its propaganda method is not equivalent to the villagers' acceptance of propaganda. Mere verbal publicity or the issuance of rule of law publicity manuals do not meet the villagers' perceptions of the law and there is a need for publicity and popularization of the law.

In addition, the survey data (The Research Team, 2019) shows that out of the 75 questionnaires distributed to villagers in three villages, only 36 questionnaires indicated that they understood the system. Nearly one-third of the villagers in the three villages visited said that they had not even heard of the system; only eleven villager families said that they had consulted the village legal counsel. During the investigation process, most villagers indicated that they have a sense of distance from legal counsel, and when disputes arise, they are more willing to trust their long-lived village cadres to resolve disputes. When interviewing the director of the village mediation committee, he also mentioned that most villagers are more willing to seek their help. It was found that the propaganda of the one-village-one-legal advisory system is still insufficient. There is a greater sense of distance between the villagers and the village legal consultants. The villagers do not really trust the village legal consultants, so how can they actively seek the help of the legal consultants? Of course, there are objective reasons such as the implementation of the system for less than one year, and the village legal counsel and the villagers not living together, but there are other reasons that need to be resolved. Firstly, the system does not have sufficient publicity funds. The legal advisory work is of a semi-public welfare nature. Although the government finances the bill and hires senior lawyers to serve as consultants, the annual special income is still weak. At present, each village is given considerable money each year. The funding support of 5,000 yuan, especially the investment in publicity, is a drop in the bucket, causing judicial staff and village officials to not adequately explain and publicize the system in detail to the villagers and their lack of enthusiasm. Secondly, there are many "urban villages" in Xiangtan City, and the residences of "urban villages" are too scattered, causing difficulties with publicity.

Looking at the villages visited by the authors, most of the home residents were women, children, and the elderly, indicating that it is common for young and middle-aged people to go out to work, and the villagers left behind are generally less educated and their legal awareness is rather weak. In fact, in many cases, it is not that the contradiction has not reached the serious level, but because the parties are not satisfied with the legal awareness, they inadvertently "drag" the problem into a "stubborn illness". Based on the fact that the effect of prevention beforehand is far greater than that of remedy

afterwards, starting from the concept, starting from the level of awareness, guiding the people to discover and solve legal problems themselves is the ultimate goal of the "rule by law" policy. Law popularization is not the work of individual legal advisers, but the common work direction of all legal workers. Even beyond legal affairs, to the education field related to the quality of the people, education solves the problems of awareness. Not only must the practical aspects be in place, but also the awareness level. It is even more fundamental.

5. Discussion of Specific Measures to Improve the System

While the one-village-one-legal-advisory system has achieved some intended outcomes, but due to the short implementation time, and the increasing demand for legal services, it is inevitable that there exist some practical difficulties in the process of system construction.

5.1 Strengthening legal systematization and flexibility

While implementing the next step by one legal consultant in one village, it should be considered from a more macro level, integrated into a larger legal system, coordinated with other projects and forming an organic combination to avoid duplication of labor and a waste of resources. At the same time as the main project, the sub-projects can also be popularized. The village legal counsel system started in October 2018. It is still less than a year and in its infancy. This period is the most difficult and will last for several years. Before entering the mature period, the expected results of this system will be to increase the enthusiasm of lawyers to implement this system. Infancy is a dangerous period. If satisfactory results are not achieved, the worst result will be the death of the system. Then the previous work can only be turned into the experience of exploring the road ahead. Systematization is not a "big family" of the "one village (community) legal adviser" system, but the result of coordination among multiple departments. The proposed systematization enables the organic integration of legal work and provides a direction for system development.

At the micro level, the system should pay more attention to flexibility. To avoid an imbalance between the legal services provided by the government and the needs of the villagers, the government should try its best to adopt advocacy suggestions and apply mandatory regulations only in areas that really involve the vital interests of the villagers. While the government promotes the system, it tries its best to reserve sufficient innovation space for villagers' self-government and village legal consultants to provide legal services, clarify the boundary between state governance and villagers' self-government, and give full play to the advantages of villagers' self-government and the professional advantages of village legal consultants. The advancement of the system is more in line with the actual needs of the villagers and is more stable. First, legal issues that can be resolved through mediation, negotiation, etc., and can be properly resolved in the village through the intervention of third parties such as village cadres and legal consultants; or the

village legal consultants can improve the village attitudes through understanding local legal knowledge and mediation methods. Increasing the legal quality of cadres and villagers and their ability to resolve disputes, allows villagers to resolve legal issues spontaneously, meet their actual needs, and save various resources. Second, if the local customs and the measures already taken are not compatible with the implemented measures and systems, but do not conflict with the mandatory provisions of laws and regulations, local governments and legal consultants should first communicate with the village committee and put forward suggestions. If the village committee agrees, then communicate with the villagers together with the village cadres; if the villagers insist on not making changes, local governments and legal advisers should respect them. Third, adjust measures to local conditions, time conditions, and determine whether it is necessary to implement the system according to the specific conditions of the village. This can save fiscal expenditure and prevent the legal system from becoming unstable. For relatively wealthy villages, if they can hire legal counsel, their choice should be respected.

5.2 Improving the supervision and assessment mechanism

Regarding the issue of supervision and assessment, the first thought is to further specify and clarify the supervision and assessment mechanisms and refine the supervision and assessment plan.

In response to the issue of the supervision, specific measures include the following: First, there is a need to clarify the supervision responsibilities of judicial offices, judicial bureaus, and judicial departments at all levels. The higher level should make clear the supervision responsibilities of the lower level. For example, the district justice bureau should announce the district justice bureau, the supervision responsibilities of the judicial offices of the towns (streets) and the village (resident) committees encouraging them to play their supervisory role, and at the same time, to truly achieve the purpose of supervising the village legal consultants to perform their legitimate functions and improving the efficiency of the village legal consultants. Second, the supervision responsibility is truly placed in the daily work of the village legal adviser. The district justice bureau and the town and street justice office can check the work ledger and the village log of the village legal adviser from time to time and conduct an immediate investigation of problems. For legal consultants who fail to perform their work functions in accordance with regulations and cause adverse effects in the village, specific punishment measures should be specified, such as warnings, withholding of subsidies, and removal of village legal consultant positions, etc., in order to achieve a warning effect, and urge village legal consultants to actively participate in the job. At the end of each working year, it is recommended that the village no longer hire legal counsel lawyers who are deemed to be ineffective in performing their duties after evaluation and poor feedback from the masses. Third, there is a need to clarify the supervision role of the villagers, publicize the supervision rights of the villagers, encourage the

villagers to supervise the legal consultants to perform their duties, and reward villagers who faithfully supervise the legal consultants to perform their professional duties. However, it is necessary to establish and improve the villager reporting mechanisms to prevent malicious supervision and reporting.

In response to the problem of the assessment system, specific measures should be undertaken. First, since the allocation of legal consultants in villages and communities is divided between various law firms, each law firm determines the specific personnel. It is recommended that the village legal consultants of the law firm form a team to be jointly responsible for the work within the jurisdiction. In addition to the requirement to reserve service hours, an appointment system is added at the same time, so that an initial contact can be formed between the parties and the lawyers, which will lay a good foundation for direct access to the key issues and rapid resolution of conflicts. If the number of appointments is saturated, it uses a time-limited presentation mechanism so that multiple appeals can be listened to. Second, WeChat groups can be used as the main work communication channel, but the publicity channel must be re-established, which can be combined with the existing network platform and the information disclosure column. An online appointment link should be set up under this column to make it convenient for the masses to make appointments with lawyers when they understand their daily work. It is also necessary to establish offline publicity channels to facilitate the elderly and children to access the corresponding information. Third, combining the actual situation of the village and the main daily work of the legal adviser need to be make it clear that the focus of his work should be the "difficult and miscellaneous diseases" of the people in the village, so as to make the legal adviser work more purposeful and improve efficiency. Fourth, regarding the types of cases that arise due to geographical differences, because they involve a wide range of cases, the case is complex, and the environmental impact on the society is more prominent, it should be the focus of the legal adviser's work. But the intervention of the legal adviser is lagging, and it may be irreversible when passively involved. In addition, the village committee and the masses dominate the participation of legal advisers. Considering that the legal advisers are external third parties after all, and the identity of the lawyer may cause certain pressures on the parties and the relationship between the lawyers and the villagers. Therefore, there is a sense of distance between the villagers and villagers often resistant to the intervention of the legal adviser in the early stages, although there are clauses in the contract that "the legal adviser must be present at the conclusion of major contracts in the village and the handling of matters". Another way of thinking is that the lawyer should intervene, but at the beginning of the intervention, so it is not necessary to provide professional opinions. Instead, it is up to the lawyer to judge whether there is a need for in-depth participation. This will not only avoid the client's anxiety, but also prevent the situation from developing in an unfavorable direction. Fifth, refine and quantify the effects of legal services provided by legal consultants, and clarify the methods for evaluating the effects of providing legal services. Considering the number of disputes resolved by legal consultants each month, the recognition and satisfaction of the parties, and the district justice bureau, need to be implemented by the judicial offices of all towns.

5.3 Strengthening publicity work and raising awareness

In response to the lack of publicity, the following suggestions are made: First, there is need to increase the awareness and enthusiasm of village cadres. It is suggested that the village committee should effectively to include the work of a village legal consultant on the agenda, and the village-level person in charge publicizes the law at the party meetings or lectures and advisers increase publicity about the rule of law. Second, allocate sufficient publicity funds. It is also recommended that the government issue the village legal consultant a fund management method, which will give a detailed description of the allocation of funds in each link. At the same time, it is recommended that the judicial administrative department directly pay the funds to ensure the use of the special funds. Third, adopt multi-form and multi-channel publicity methods. The subjects of propaganda and law popularization are diverse, and their methods are also diverse. With the development of modern media, information dissemination methods are no longer limited to oral propaganda. Therefore, make full use of the town (street) government's WeChat official account, broadcasts, cable TV, electronic display screens, publicity columns, or QR codes set up in prominent locations in the village, to publish the names, photos, contact numbers, and services of legal advisers. The content, etc., timely summing up of the successful experiences and advanced models of the legal consultants at the site to expand the awareness and influence of the village legal consultants and enhance the good image and social popularity of lawyers at the grassroots level. Further expand public awareness and social visibility and create a good environment and conditions for the in-depth and solid progress of the work. Diversified and flexible propaganda methods can enhance the people's understanding and confidence in the system and help solve the defects in their awareness.

6. Conclusion

With the continuous development of China's society and economy, the concept of the legal system has gradually taken root in the hearts of the people. However, the problem of the lack of legal resources at the grassroots level in rural areas is still unresolved. Most of the legal resources are concentrated in urban areas. There is a serious shortage of legal resources in counties and county-level cities. As a new system, the one-village-one-legal-advisor system attempts to solve this practical problem, in the process of system construction and operation, but the interaction of the four types of interest groups reflects a real dilemma. This article describes the current situation of the implementation of the one-village-one-legal-advisory system in Xiangtan City and provides some suggestions for the improvement of the system. Its deeper intention lies in the

perspective of the difficulties in the implementation of the system and the outlook for the future of the system. In this article, the discussion on the system is still quite preliminary, and further research is expected, especially on how to better balance the relationship between supply and demand in order to better promote rural governance.

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A Review on Data-driven Online Water Diagnosis Methods for Vehicle-mounted Fuel Cells

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Abstract: Proton Exchange Membrane Fuel Cell (PEMFC) is an ideal clean vehicle-mounted energy source and has attracted increasing attention. The fuel cell uses hydrogen and oxygen to generate water inside the stack and generate electricity. The humidity inside the stack will seriously affect the stack performance. Excessive humidity or excessive dryness will damage the life of the stack, so the water fault diagnosis of the fuel cell is particularly useful. This paper conducts a qualitative analysis of the fuel cell water status and summarizes the data-driven fuel cell water status diagnosis to provide guidance for the reliable on-board operation of the fuel cell.

Key words: Proton Exchange Membrane Fuel Cell, diagnosis of water fault, data-driven

1. Introduction

The proton exchange membrane fuel cell (PEMFC) converts chemical energy into electrical energy. It possesses the characteristics of low operating temperature, high power density, fast response, fast startup, good stability, and little environmental pollution. It is an incredibly attractive vehicle-mounted power generation device [1-3].

Fuel cell water fault diagnosis methods can be divided into model-based methods and data-driven methods. Model-based methods mainly include methods based on Bernoulli's equation, which only consider single-phase flow[4].; methods based on Multiplier, which can model the two-phase flow[5].; methods based on Darcy's law, which have a good modeling effect for cross-type channel[6].. Model-based methods require mechanism calculations and complex structural parameters inside the stack. For vehicle-mounted high-power fuel cells, it is difficult to calculate online.

The data-driven method uses data characteristics that can reflect the state of the fuel cell to model the water state of the fuel cell, including cell voltage, flow-to-pressure difference, and AC impedance. This type of method relies on data mining and has a small amount of calculation, which is suitable for vehicle-mounted applications, but requires a large number of experimental measurements and requires higher experimental requirements.

2. Water Transport in Fuel Cell

2.1 Mechanism of water transport

Although the amount of water generated is only related to current, the phases of water generated are affected by temperature, humidity and pressure. If relative humidity is less than 100%, the water generated is in gas phase and is used to continue to humidify the stack and move to the outlet; if the relative humidity has reached 100%, the water generated will transport in liquid phase.

Water transport inside proton membrane includes Electro-Osmotic Drag (EOD) effect, Back Diffusion (BD) effect and Thermal-Osmotic Drag (TOD) effect. Main factors impacting these effects are temperature, humidity, and pressure etc.

Water transport inside proton membrane includes Electro-Osmotic Drag (EOD) effect, Back Diffusion (BD) effect and Thermal-Osmotic Drag (TOD) effect. Main factors impacting these effects are temperature, humidity, and pressure etc.

Considerable visual experiments have conducted to research on the water formation, agglomeration and its state flowing along with the gas. Through these experiments it is proved that the accumulation of liquid water in flow channel goes through four stages: stray droplets, stable droplets, liquid film, and water slug. Fig.1 shows that liquid water accumulation in the flow field will result in higher auxiliary power from the BOP components [7].

2.2 The influence of water state on fuel cell

Proton Exchange Membrane has good proton conductivity only in fully humidified condition. Water transport inside the membrane is an important process to humidify the membrane and is also a major way of water redistribution between Anode and Cathode. Flooding and dehydration will cause fuel cell stack to malfunction; therefore, it is vital to find method to avoid a fuel cell system to fail caused by water and meanwhile to monitor its status. Good water management is key to improve performance and durability of a fuel cell system [8].

3. Data-driven Fuel Cell Water Fault Diagnosis

3.1 Water fault diagnosis of fuel cell based on pressure difference model

The differential pressure model is an important model in fuel cell water fault diagnosis. As shown in Figure 2, the literature [9] believes that the cathode pressure difference is more obvious than the anode pressure difference, and it is easier to reflect the water state of the fuel cell.

The diagnostic methods based on differential pressure analysis are:

a. Based on the neural network method, the equipment detects the water state of the fuel cell, and then the input data and output data form a training pair to train the neural network [10].

b. Water fault diagnosis based on the ratio of pressure drop to flow rate and use the 3-sigma principle to classify the data [11].

c. Water fault diagnosis based on the frequency of pressure drop, Which performs frequency spectrum analysis on the pressure drop of the fuel flow channel, and diagnose the water state of the fuel cell based on the results of the spectrum analysis [11-13]。

3.2 Water fault diagnosis of fuel cell based on pressure difference model

The cell voltage contains a lot of information about the fuel cell, so in theory the state of the fuel cell can be modeled by the cell voltage. This idea relies more on data-driven algorithms. However, there are a large number of fuel cell stack monomers, and dimensionality reduction methods need to be used to reduce the dimensionality of the fuel cell voltage input. The main dimensionality reduction methods are Principal Component Analysis (PCA), Fisher Discrimination Analysis (FDA), Kernel Principal Component and Analysis (KPCA), Kernel Fisher Discrimination Analysis (KFDA) [14].

After the data is reduced in dimensionality, the classic classifier design method can be used to classify the water status of the fuel cell. For example, the literature 15 uses the SVM classifier to classify the dry and wet status of the fuel cell [15].

4. Conclusion

The water content of the fuel cell proton exchange membrane is very important to its performance and durability, but no sensor can directly measure the water state of the fuel cell, and a diagnostic algorithm is required for modeling and diagnosis.

In vehicle applications, the internal water transmission of the fuel cell is very complicated, and the computing power of the vehicle controller is limited, so it is difficult to deal with complex mechanism models. The data-driven algorithm avoids complex mechanism modeling, and can be trained offline, and can be run online after proper optimization. It is of great practical significance for the diagnosis of fuel cell water status.
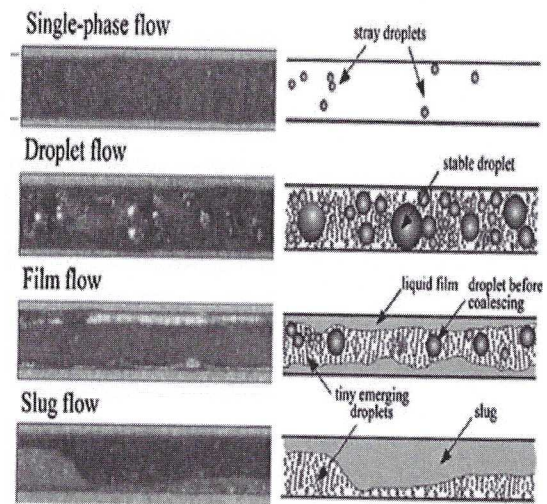

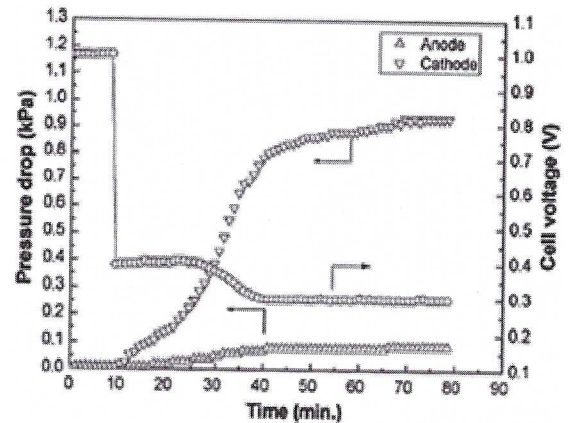**Fig 1 The state of water in the fuel cell flow channel**

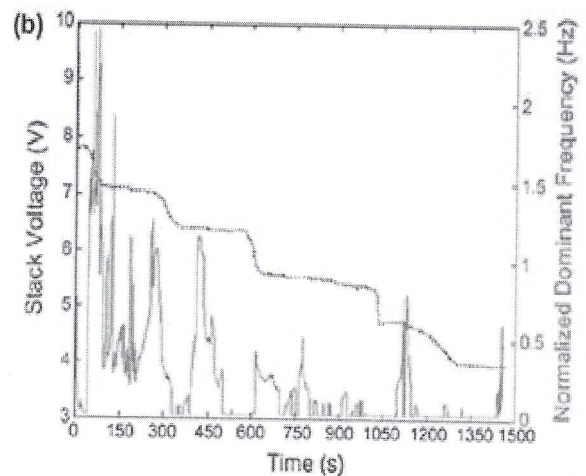Fig.2 The relationship between pressure drop and the flooding

Fig.3 The pressure drops of the cathode collected during the experiment

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A Non-dualistic View on Second Quantization

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Abstract: The abstract fundamental concepts and principles of second quantization in the course of advanced quantum mechanics are normally difficult to be understood for students from the conventional phenomenal and dualistic view. In this paper, a non-dualistic view for creation/annihilation operator and vacuum state is proposed for helping to understand these ideas. It is argued that from the non-dualistic view, the vacuum state can be well and naturally understood as invariable background, and the conventional understandings of phenomenal variations and differences in single particle and multi-particle states from the dualistic view may also be suitably contained as the superficially manifesting images inside the background.

Key words: Second quantization, advanced quantum mechanics, ontology, nonduality, emptiness

1. Introduction

As an important part of advanced quantum mechanics, second quantization establishes the particle number representation in terms of creation and annihilation operators. In this representation, all the states and mechanical quantities (including single and double particle operators) can be conveniently described as the combinations of creation and annihilation operators which are quite useful for many-particle systems (Schwabl, 2012; Liu, et al., 2009). However, the abstract fundamental concepts and principles of second quantization (e.g., creation and annihilation operators, vacuum state, particle number representation, representations of single- and double- particle operators in terms of creation and annihilation operators, etc.) are normally difficult to be understood for students, since these ideas and concepts are quite different from the conventional and familiar representations of the specific mechanical quantities such as coordinate, momentum, angular momentum.

Unlike the concrete states and mechanical quantities in terms of wave functions and Hermitian operators under certain representations for a single particle system, the states and mechanical quantities for a multi-particle system should be expressed in terms of creation and annihilation operators which are somewhat difficult to be apprehended. Further, creation and annihilation operators are also defined as the effects of creating a particle from vacuum state and annihilating a particle into vacuum state, respectively. As regards the above concepts and definitions, students would always wonder how a particle is created or annihilated from or into vacuum state, although they can use creation and annihilation operators as tools to deal with some exercises. As a result, the students confined to the above confusion for the fundamental concepts and principles in second quantization would forfeit the chance to experience the novel beauty of this course, and their interest in advanced quantum mechanics may also be depressed. At this circumstance, it is quite necessary to establish a completer and more inclusive scheme for the students to grasp the main ideas of second quantization and to build the sound insight into this point with their own experiences.

For the above-mentioned difficulties in the understandings for the fundamental concepts and principles of second quantization, the main reason may lie in the dual thoughts about these problems, e.g., either existence or non-existence, either wave or particle. It is well known that the concept of wave-particle duality almost perfectly overcame the difficulties in the understandings of the nature of a particle by exceeding the traditional solid contrariety between wave and particle (Schwabl, 2012; Liu, et al. 2009), and also enhanced the understanding for ontology. Similarly, a new non-dualistic view (Sobottka, 2009; Ramanasramam, 2008) could transcend the gap between existence and non-existence and would be helpful for the further understanding of the concepts and principles in second quantization such as vacuum state and creation/annihilation operator.

To help the students apprehend these abstract concepts and principles of second quantization, in this paper, a new non-dualistic view transcending the conventional dualism is tentatively adopted for the sake of the complete insight into these ideas, by proposing a new view for vacuum state as well as creation and annihilation operators.

2. Functions of creation and annihilation operators

For a multi-particle system, creation and annihilation operators are usually defined as follows (Schwabl, 2012):

$$|\alpha> = a_\alpha^+ | >, \quad <\alpha| = <| a_\alpha, \quad (1a)$$
$$\text{Or } |n_\alpha> = (a_\alpha^+)^{n_\alpha} | >, \quad <n_\alpha| = <| (a_\alpha)^{n_\alpha}. \quad (1b)$$

Here a_α^+ and a_α are the creation and annihilation operators for the αth single particle state $|\alpha>$. $| >$ represents vacuum state. n_α is the particle number of this single particle state. Under the non-relativistic assumption or particle conservation, particles can be located in different single particle states and contribute to distinct total state of the system:

$$| n_1 n_2 \cdots n_\alpha \cdots> = (\textstyle\prod_{i=1} n_\alpha!)^{-1/2} (a_1)^{n_1} (a_2)^{n_2} \cdots (a_\alpha)^{n_\alpha} \cdots | >. \quad (2)$$

In essence, the variability of the total state in terms of the particle numbers for various single particle states is merely phenomenal or superficial in view of the natural identicality. This means that the identical particles have the same intrinsic properties such as mass, charge, spin and magnetic momentum etc. with only temporary differences in some peripheral features (e.g., energy).

In consideration of the superficial difference between the αth single particle state with one or n_α particles and vacuum state, the effects of creation and annihilation operators on vacuum state in Eq. (1) can be expressed in form of unity operator with distinct expansion coefficients c_k:

$$a_\alpha^+ = \textstyle\sum_k c_k |k><k|, \quad a_\alpha = \textstyle\sum_k c_k^* |k><k|. \quad (3)$$

Here the basis $|k>$ can be taken as the eigenfunctions of a Hermitian operator. Since the coefficients c_k are usually dissimilar to one, the effects of creation and annihilation operators indeed lead to some variations with respect to vacuum state, so called creation and annihilation, respectively. Thus, creation and annihilation operators can be understood as the partial (incomplete) projection of identity operator.

3. Nature of vacuum state: from the non-dualistic view

With combination of special theory of relativity and quantum mechanics, vacuum state may not be regarded as nothing but sea of full states of negative energy, which can be further described by quantum field theory (Srednicki, 2010). Thus, one may not simply treat vacuum state as the state without particles, and the contrariety between existence and non-existence should be transcended so as to achieve a deeper insight into this problem. Along this line, in this section, a new view from nonduality (Wei, 2009; Srednicki, 2010) is introduced to establish a new scheme for vacuum state.

3.1 Vacuum state as the origin of particles

From the definitions of creation and annihilation operators in Eq. (1), vacuum state could be understood as the original of particles, able to create and annihilate particles subject to the corresponding operators. Even upon creation and annihilation of particles, vacuum state as the origin never changes at all, despite the superficial

creation and annihilation from this bodiless background or container. This point is similar to the fact that space never varies when adding or moving some object and that the screen of movie never alters with the ever changing pictures inside. So, vacuum state as the origin is formless, timeless, spaceless, complete, absolute oneness. It is neither the state of non-existence nor the opposite side of existence, beyond dualistic judgment, definition or even description. This origin can be tentatively comprehended as nature of empty, i.e., emptiness, transcending all relative and dualistic concepts.

3.2 Non-substantiality of vacuum state as the origin

In spite of the tentative name and convenient expression of $| >$, vacuum state as the origin is not a body, nor has substantiality. Dissimilar to phenomenal existence, this origin is beyond logic and rationality as well as conventional thinking such as concepts, judgment and reasoning, since it could not be intentionally thought or described as an object with mind and brain. Instead, this origin could only manifest itself naturally as soon as mind and brain cease and unconventional thinking such as intuition and inspiration is active. This is because the limited mind and brain can only recognize limited objects, while the boundless origin could merely be comprehended by complete and integrate soul. Not having substantiality, the absolute origin could not been known, understood, thought or spoken about as an object with the limited and incomplete mind. Of course, the above sentences are merely used for convenience, since the origin cannot be "recognized" as an object at all. Therefore, vacuum state as the origin of particles can only be comprehended as an integrated, complete, non-dualistic ontological "term".

3.3 Infinite creativity of vacuum state as the origin

Owing to the non-substantiality of vacuum state as the origin, it shows infinite creativity to bring out identical particles in all kinds of single particle states and hence distinct total multi-particle states, as described in Eq. (2). All particles occupying the corresponding single particle states and also the total states of the system are created from vacuum state as the origin due to emptiness. Obviously, if vacuum state as the origin had substantiality or were not of emptiness, it could not possess the infinite creativity due to the limitation of the substantiality. Phenomenally, the various single particle states containing certain numbers of particles are different from vacuum state and also different from each other. In fact, particles emerging in all sorts of single particle states actually have no essential difference from vacuum state as the origin, since the latter could not create anything essentially different from itself. If one confuses the superficial and phenomenal differences between the various single particle states or the total multi-particle states and vacuum state and also those between each other as the solid substantial ones, the truth would be concealed by the dense fog of the above misunderstanding and the real comprehension could be detained. Even though, oneness of vacuum state as the origin would never be disturbed.

4. Nature of creation and annihilation operators

Based on nature of vacuum state as the origin, nature of creation and annihilation operators and also other operators can be further discussed here from the non-dualistic view.

4.1 Nature of creation and annihilation operators

As mentioned above, the phenomenal differences between the single particle state $|\alpha>$ and vacuum state $|>$ are merely based on the dualistic view. Recall Eq. (3), creation and annihilation operators can be phenomenally regarded as the partial projection of identical operator. From the non-dualistic view, they can be actually identical. Thus, we have from Eq. (1a)

$$a_\alpha^+ \equiv a_\alpha \equiv I. \quad (4)$$

This means that from the non-dualistic view creation and annihilation operators are essentially identical operator. In detail, creation is actually birthlessness, and annihilation denotes actually deathlessness. The superficial and illusory creation and annihilation in phenomenal world essentially reveal eternal truth behind these phenomena, indicating that all actions are eventually inaction. Obviously, other mechanical quantities (operators) than creation and annihilation operators also have the same nature, which exhibit infinite effects of vacuum state in terms of phenomenal reflections. During all processes and actions, there is no doer or things done, merely spontaneous energy flows within the background of vacuum state.

4.2 Mirror metaphor for vacuum state and creation/annihilation operator

Mirror metaphor can be applied here for the relationship between vacuum state and creation/annihilation operator. Mirror represents the noumenon, which reflects and emerges all kinds of changing images inside. Despite frequent appearance and disappearance of these images within the mirror, the latter never alters even a bit. It would never feel happy upon the image of a beauty, nor get dissatisfied with the image of cow chip, nor become hot or cold with the image of fire or ice. Similarly, vacuum state and creation/annihilation operator have the same nature. Vacuum state as the origin creates and witnesses all particles inside, regardless of these particles occupying different single particle states and showing distinct total multi-particle states. Phenomenal changes from the dualistic view never stir the essential invariability of the origin from the non-dualistic view. In fact, dualistic and non-dualistic views actually do not show conflict but suitably merge with each other. When one knows a certain single particle state $|\alpha>$, he actually simultaneously apprehends both the phenomenal existence of this single particle state from the dualistic view and the substantial reality of vacuum state as the origin from the non-dualistic view. At this circumstance, he has assimilated into the complete scheme of these concepts of second quantization.

Of course, the above mirror metaphor could be treated as not exactly the true reality but merely a tentative comparison. First, mirror has form and boundary, whereas vacuum state as the origin is formless and boundless. Second, the images inside the mirror are induced by the corresponding objects outside. However, both the stimulation as certain condition and the response as the result are inside vacuum state, like a formless and boundless "mirror" containing both objects and images. Thus, all phenomenal variations are not only being witnessed by the origin but also essentially the origin itself, and all effects are actually actions with inaction by itself.

4.3 Practice of internal observation based on creation and annihilation operators

As students grasp the main ideas of second quantization from the non-dualistic view, they can further make some practice during studies and daily lives. There are largely two methods of passive observation or self enquiry (Sobottka, 2009; Ramanasramam, 2008), i.e., approaching and exceeding methods.

Approaching method can be used for beginners still with partial dualistic view. Upon the phenomenal appearance and disappearance within illusory space and time arising from creation and annihilation operators, the students may keep deep and delicate passive observation, without any definition, judgment, greedy or repulsion. Nor may they fall into habitual responses. Not clinging to the phenomenal differences among the single particle or multi-particle states, comprehending can be achieved through subtraction of the dense fog over truth step by step. As soon as the illusory wrong cognitions melt, truth can suddenly manifest itself entirely. Then the students can know fully the nature of vacuum state and creation/annihilation operator, as one who really knows the mirror could ignore the ever changing images inside, or as one who sees the true moon would forget the finger pointing to it.

Exceeding method directly leads to truth without gradual practice, by understanding that the phenomenally changing states in present are actually immutable vacuum state and can naturally melt into the origin without any effort. Despite wrong understandings for truth of vacuum state and creation/annihilation operator, truth itself or the origin never changes a little, which is always complete and perfect, in no need of improvement by practice. At this moment, images what one sees are actually identical to the mirror, and events what happen do not differ essentially from truth.

5. Conclusion

In order to prompt understandings for the abstract concepts and principles of second quantization, the non-dualistic view for vacuum state and creation/annihilation operator is proposed to manifest the deep ontological meaning. From this view, vacuum state can be comprehended as the formless, boundless, spaceless and timeless origin, and creation/annihilation operator which produces definite phenomenal differences among various single particle and multi-particle states from the conventional dualistic view may actually act as identical operator to manifest the origin itself inside.

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Effects of Matrine on Apoptosis and Autophagy in Gastric Cancer MGC-803 Cells

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Abstract: Aim: This research aims to study the effect of matrine (MAT) on apoptosis and autophagy of gastric cancer MGC-803 cells and its possible mechanisms. **METHODS:** MGC-803 cells were cultured in vitro and treated with different concentrations of MAT. The MTT assay was used to determine the optimal time and concentration of drug on cell proliferation. The effect of MAT on the formation of apoptotic bodies in MGC-803 cells was determined by Hoechest33342 staining; and LC3 protein expression by immunofluorescence staining of MGC-803 cells. Western blotting was used to detect the expression of autophagy and apoptosis-related proteins. **RESULTS:** The 0 g/L, 0.5 g/L, 1.0 g/L and 1.5 g/L significantly inhibited the proliferation of MGC-803 cells ($P<0.01$ or $P<0.05$), and the best drug-action time was 48 hours. After Hoechst33342 staining, bright blue apoptotic bodies in MGC-803 cells significantly increased after MAT treatment at 0.5 g/L, 1.0 g/L and 1.5 g/L. The number of apoptotic cells increased significantly compared with the control group ($P<0.01$). Immunofluorescence results showed that the expression of LC3-increased significantly with the increase in drug concentration. Western blotting results showed that MAT significantly up-regulated the expression of LC3-and Beclin-1 in MGC-803 cells, down-regulated the expression of Bcl-2 protein while the expression of Bax did not change significantly. **CONCLUSION:** MAT can significantly inhibit the proliferation of gastric cancer MGC-803 cells, induce autophagy and promote apoptosis of cancer cells, while MAT is positively correlated in regulating apoptosis and autophagy of gastric cancer cells.

Key words: Matrine; MGC-803Cell; proliferation; apoptosis; autophagy

1. Introduction

Currently, gastric cancer is the most common gastrointestinal malignant tumor with high morbidity and mortality in the world [1]. According to the statistics, there are approximately one million new gastric cancer cases worldwide each year, and nearly 88% of the cases occur in developing countries, especially those in East Asia such as China. Studies have shown that the occurrence of gastric cancer is the result of a series of stages such as inflammation, atrophy, and intestinal metaplasia caused by long-term helicobacter pylori infection [2]. In East Asia, surgery is still the basic strategy for the treatment of gastric cancer. Most gastric cancers are diagnosed as advanced or have distant metastases, and the recurrence rate of gastric cancer is remarkably high, and the five-year survival rate is extremely low [3]. At present, chemotherapy is still the main method for the treatment of gastric cancer after surgery and for advanced gastric cancer. The side effects of chemotherapy drugs are large, and

the poor efficacy is getting more and more attention [4]. Molecular targeted therapy is a new type of gastric cancer treatment that has developed rapidly in recent years. Therefore, improving the early diagnosis rate of gastric cancer and finding effective drugs and molecular targets are important goals for the treatment of gastric cancer.

It is recognized that numerous compounds extracted from traditional Chinese medicine can effectively reverse tumor growth in vitro, but the specific principles and mechanisms are still not clear, and their use in clinical practice is significantly limited. Matrine (MAT) is the main active ingredient extracted by organic solvents such as ethanol from the dried roots, plants and fruits of sophora flavescens, a traditional Chinese medicinal legume. It has been used clinically to treat viral hepatitis, arrhythmia, and skin inflammation, etc. [5]. Studies have found that MAT can combat tumor cell proliferation such as in retinoblastoma, lung cancer, cervical cancer, and leukemia [6]. There are many anti-tumor mechanisms of MAT,

which mainly include inhibiting tumor cell proliferation, promoting apoptosis, inhibiting migration, and inducing tumor cell autophagy and cytotoxicity [7].

These mechanisms may regulate proliferation of apoptosis-related genes, such as the nuclear gene c-myc, apoptotic protein factors, members of the Bcl-2 family, and caspases. The research of Hua et al. also confirmed that MAT can induce apoptosis of liver cancer cells through the caspase pathway [5].

In the study and treatment of cancer, more and more researchers are paying attention to apoptosis and autophagy. Since MAT is closely related to cancer cell proliferation, apoptosis, migration and cancer occurrence, metastasis and prognosis, an in-depth study of the molecular mechanism of MAT in the occurrence and development of gastric cancer is of great significance for the clinical diagnosis and treatment of gastric cancer [8]. Studies have established that MAT can induce apoptosis and autophagy in Bel7402 and HepG2 cells [9]. However, the mechanisms of MAT for inducing apoptosis and autophagy in gastric cancer MGC-803 cells is rarely studied. In this study, different concentrations of MAT were applied to gastric cancer cell MGC-803 to observe its effect on cell proliferation, apoptosis and autophagy, and to explore the effect of MAT on apoptosis and autophagy in the gastric cancer cell MGC-803, which may provide a new theoretical basis for the clinical anti-tumor effect of matrine.

2. Materials and Methods

2.1 Materials

2.1.1 Cells: MGC-803 cells were purchased from the American Model Strain Conservation Center and preserved by the Cancer Research Center at Yanbian University.

2.1.2 Reagents: Streptomycin, penicillin, and Hoechst33324 were purchased from Biyuntian Institute of Biotechnology; fetal bovine serum, RPMI 1640 culture medium, and 0.25% Trypsin-EDTA were purchased from Gibco, USA; matrine was purchased from Xi'an Haotian Biotechnology Co., Ltd. Company (HPLC 98%), which prepared the required concentration with culture solution; MTT, DMSO, and DAPI-containing quenching silver mounting tablets were purchased from Solebold Technology Co., Ltd.; mouse anti-LC3 antibody, goat anti-mouse IgG (H+L) Secondary antibody 488 (1:200) was purchased from Invitrogen, USA; rabbit anti-Beclin-1, Bcl-2, and Bax antibodies were purchased from Cell Signaling; Flow cytometry kit was purchased from BD.

2.1.3 Instruments: The biological inverted optical microscope and the biological inverted optical microscope were purchased from Olympus; the microplate reader was purchased from Thermo; the electrophoresis apparatus, vertical electrophoresis tank, and wet transfer film tank were purchased from Bio-Rad.

2.2 Cell culture: MGC-803 was cultured with RPMI1640 culture medium containing 10% fetal bovine serum, 100 U/ml penicillin and 100 U/ml streptomycin, was placed in a cell incubator at 37°C and 5% CO_2 volume fraction.

2.3 Pharmaceutical preparation: MAT was diluted with 0.5% normal saline, and the concentrations used were 0.25 g/L, 0.5 g/L, 1.0 g/L, 1.5 g/L, 2.0 g/L. MTT solution: MTT powder was diluted with PBS buffer to a 5 g/L solution, and stored at -20°C in the dark.

2.4 MTT assay: Inoculated MGC-803 cells (in the logarithmic growth phase) were put onto 96-well culture plates (5×10^3 cells/well) for culturing, and the next day were treated with 0.25 g/L, 0.5 g/L, and 1.0 g/L and 2.0 g/L matrine; the untreated cells were used as the control group, and each group was set up with five multiple wells. After the cells were cultured for 12 h, 24 h and 48 h, 20 μL MTT (5 g/L) was added to each well, and placed in a 37°C, 5% CO_2 incubator for 4 hours, the supernatant was discarded to stop the reaction, 100 μl/well DMSO was added, shaken to dissolve the crystals, and placed in an enzyme-linked immunoassay (Tecan M200), The absorbance (OD) value of each well at the wavelength of 490 nm was measured on TECAN, Switzerland, and the cell proliferation rate was calculated. Cell proliferation rate (%) =D value of the experimental group/D value of the control group×100%.

2.5 Observed cell apoptosis by Hoechst33342 staining: The coverslips soaked in alcohol were put in UV light for 30 min on a 6-well culture plate, the MGC-803 cells digested in the logarithmic phase, and each well inoculated in the 6-well plate after centrifuging 2×10^4 cells. After the cells adhered to the wall, 0.5 g/L, 1.0 g/L, and 1.5 g/L of MAT were added. After 48 hours of treatment, the culture medium was discarded and rinsed with PBS 3 times for 5 minutes each, with 1 μg/ml Hoechest33342, 2 ml of staining solution was added to each well, protected from light at 37°C for 30 min, twice rinsed with PBS, mounted on slides with nail polish, and pictures taken under a fluorescent microscope.

2.6 The immunofluorescence method: The coverslips were immersed in alcohol in UV light for 30 min on a 6-well culture plate, and logarithmic growth phase MGC-803 cells were collected and inoculated on the coverslips (1×10^4 cells/well) for preparation. After the cells had adhered to the cell slide, the cells were treated with 0.5 g/L and 1.0 g/L MAT. The untreated group served as the control group. After 48 h of MAT treatment of the cells, the supernatant was discarded, washed with cold PBS three times for 3 minutes, 4% paraformaldehyde added and fixed in a refrigerator at 4°C for 25 minutes. After discarding the solution, the cells were twice washed with PBS twice for 3 minutes. 0.1% Triton-100 was placed at room temperature for 10 minutes, washed with cold PBS 3 times for 3 minutes, 0.3% BSA 4°C blocking reaction for 30 minutes, and washed with cold PBS 3 times for 3 minutes. Mouse anti-human LC3 monoclonal antibody (dilution ratio 1:200) was added, reacted overnight at 4°C; the antibody discarded, washed 3 times with PBS, and Alexa488 goat anti-mouse IgG (secondary antibody) (volume dilution ratio 1:500) added , Reaction time was 30 min at 37°C in the dark, discarded the antibody and it was washed with PBS for 3 times, and fixed it with a solid solution containing DAPI fluorescence quenching, and the protein expression of LC3 observed under a laser confocal microscope.

2.7 Western Blotting experiment: Gastric cancer MGC-803 cells were treated with different concentrations of MAT to extract protein, quantify, after denature, load, electrophoresis, transfer membrane, block, incubate the primary antibody, refrigerator overnight at 4°C, incubate the secondary antibody after washing the next day After cleaning, Image Lab software was used for data analysis after exposure to gel imager.

2.8 Statistical methods: The experiments in this study were independently repeated 3 times. SPSS17.0 and GraphPad Prism 5 software were used to perform statistical analysis of the experimental results. The measurement data was expressed as x+s; the comparison of data between multiple groups used analysis of variance, the pairwise comparison within the group used a LDS-t test; the comparison between two independent samples used a t test. P<0.05 was set to establish that the difference between treatment groups was statistically significant.

3. Results

3.1 MAT inhibits the proliferation of gastric cancer MGC-803 cells

MAT inhibited the proliferation of gastric cancer MGC-803 cells in a time- and concentration-dependent manner. 0.5 g/L, 1.0 g/L and 1.5 g/L MAT treated MGC-803 cells for 12 h, 24 h and 48 h, and the MTT method was used to detect the cells. The results (See Appendix 1: Fig1) show that MAT inhibited the proliferation of MGC-803 cells in a time- and concentration-dependent manner (P<0.05 or P<0.01). The drug concentration had the best effect at 48 h.

3.2 MAT induces apoptosis of MGC-803 cells

MGC-803 cells were treated with different concentrations of MAT (0.5 g/L, 1.0 g/L, 1.5 g/L) for 48 hours for Hoechst 33342 staining. The results showed that with the increase of MAT concentration, the number of blue bright apoptotic cells increased significantly (see Appendix 2: Fig 2 and the Figure below), the white arrows show apoptotic cells), which was statistically significant compared with the control group (p<0.01).
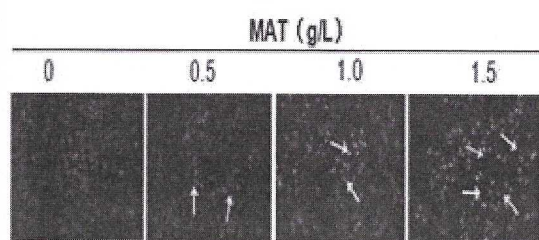
Apoptotic cells at different MAT concentrations

3.3 MAT can promote autophagy in MGC-803 cells

After treating MGC-803 cells with MAT concentrations of 0.5 g/L and 1.0 g/L for 24 h, immunofluorescence was used to detect the expression of LC-3 protein in each group of cells. The results (See Appendix3: Fig3) showed that Alexa fluorescence 488 Goat anti-rabbit IgG (secondary antibody) turns green after reaction. The expression level of LC-3 protein in the cells of the MAT treatment

group was higher than that of the control. This result suggests that MAT may play an anti-tumor effect by promoting autophagy in MGC-803 cells.

3.4 Changes of autophagy-related proteins in MGC-803 cells by MAT

After MGC-803 cells were treated with different concentrations of MAT (0.5 g/L, 1.0 g/L, 1.5 g/L) for 48 hours, the Western Blotting results showed (See Appendix4: Fig4), LC-3Ⅱ/LC-3Ⅰ increased with the concentration of the drug. The ratio increased significantly, and the expression of Bcelin-1 also increased, which was statistically significant compared with the control group (p<0.5 or p<0.01).

3.5 Effects of MAT on the changes of apoptosis-related proteins in MGC-803 cells

MGC-803 cells were treated with different concentrations of MAT (0.5 g/L, 1.0 g/L, 1.5 g/L) for 48 h and the Western Blot results are shown (see Appendix 5: Fig5). The results showed that the Bcl-2 protein expression level of MGC-803 cells was inhibited after MAT treatment and showed a downward trend as the drug concentration increased. There was no significant difference in the expression level of Bax protein, but the ratio of Bax/Bcl-2 apoptotic protein was significantly increased, which was dose-dependent, and was statistically significant compared with the control group (all P<0.01).

4. Discussion and Conclusion

Gastric cancer is a common malignant tumor in the digestive system. Its occurrence and development are related to the dysfunction of many tumor-related genes, such as promoting cell proliferation, inhibiting cell apoptosis, and inducing migration and metastasis. Apoptosis is the programmed death of cells, and it is an important part of organism growth, development, heredity and maintaining homeostasis. Unlike necrosis, apoptosis can produce apoptotic bodies. Apoptosis includes endogenous apoptotic pathways and exogenous apoptotic pathways, while the Bcl-2 family belongs to the endogenous apoptotic pathways. The proteins encoded by genes mainly inhibit or promote cell apoptosis through the mitochondrial pathway. It has two Sub-families: anti-apoptotic proteins (Bcl-2, Bcl-XL, Bcl-w, Bfl-1, Brag-1 and Mcl-1), pro-apoptotic proteins (Bax, Bak, Bcl-Xs, Bad, Big and Hrk) [10]. The coordination of apoptotic proteins and anti-apoptotic proteins is an important key component in maintaining the growth and development of the body. The abnormal expression of apoptosis-related genes can not only promote the development and metastasis of tumors, but also enhance the resistance of cancer cells to chemotherapy. Studies have found that apoptotic bodies are produced by endogenous transfer pathways and are used to represent cell apoptosis [11]. This study found that compared with the control group, as the concentration of MAT increased, the number of apoptotic bodies and the number of apoptotic cells increased significantly. From the perspective of molecular biology, the balance mechanism between apoptotic proteins and anti-apoptotic proteins was broken, which promoted apoptosis.

Autophagy has been proven to be a type 2 programmed cell death, which is a self-defence and adaptive mechanism for cells in an unfavourable environment, but too much autophagy can cause cells to undergo non-apoptotic type 2 programmed cell death It is a Caspase-dependent apoptosis process and is related to the formation of autophagosomes [12]. The process of autophagy is regulated by many autophagy-related proteins, which are involved in the formation of autophagy. LC3 protein is currently recognized as a marker of autophagy. The location of LC3 proteins in the cell can be used to determine whether the cell has autophagy. When there is no autophagy, the fusion protein LC3 diffuses in the cytoplasm, and when autophagy occurs, LC3 transfers to the phage membrane, where multiple bright green fluorescent spots are shown formed under a fluorescence microscope, and one spot is equivalent to an autophagosome. Detecting the number of LC3 localizations in the cell by fluorescence microscopy and the change in protein expression detected by Western Blotting can determine whether the cell has autophagy [13].

Beclin1 plays a key role in the initiation of autophagy, mainly promoting the degradation of cell tissue by lysosomal enzymes [14]. This study confirmed under the fluorescence microscope, that the number of bright green fluorescent autophagosomes in gastric cancer cells increased significantly with the increase of MAT concentration, while the expression levels of Beclin1 and LC3 in the Western Blotting experiments when compared with those in the control group, increased significantly.

The correlation between apoptosis and autophagy plays a vital role in chemotherapy [15]. Various anti-cancer treatments can induce autophagy but not necessarily cause cell death. Studies have shown that the induction of tumor cell autophagy during the treatment of tumors by MAT is a protective mechanism for tumor cells to avoid cell damage, rather than autophagy causing cell death [16]. Research by Yang J et al. found that Bcl-2 and Bcl-xL can combine with Beclin 1 and Bax/Bak, respectively, to inhibit cell autophagy. In matrine studies, it was also confirmed that Beclin 1 can be derived from Bcl-2/Bcl-xL. In combination with Bax/Bak, it is released to promote autophagy [9]. In this study, the difference in the number of apoptotic cells in gastric cancer MGC-803 cells with the increase of drug concentration was statistically significant compared with the control group. The possible mechanism is that the number of autophagy cells is followed by a significant increase in apoptosis.

In summary, this study suggests that with the increase of MAT concentration and drug action time, it can inhibit the proliferation of gastric cancer cells, promote cell apoptosis, and induce autophagy. This study also indicates that MAT has a certain value as a drug for the treatment of gastric cancer, and has advanced the development of new anti-cancer drugs for human beings. However, whether matrine promotes Beclin 1 under the action of gastric cancer MGC-803 can be released from the combination of Bcl-2/Bcl-xL and Bax/Bak to promote the autophagy mechanism still needs further study.

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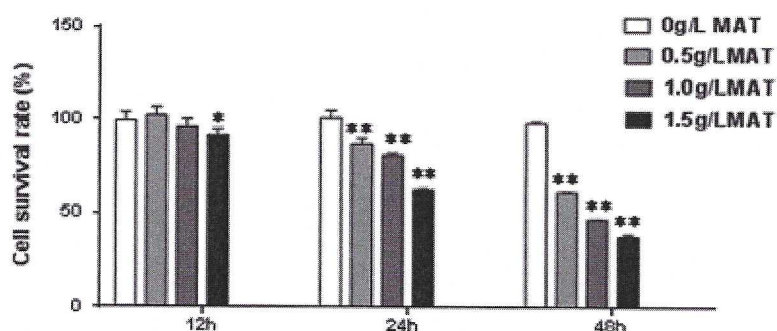
Appendix 1: Fig 1

Fig 1. The effect of matrine (MAT) on the proliferation of gastric cancer MGC-803 cells was detected by MTT assay (*$p < 0.05$, **$p < 0.01$, vs 0 g/L group; n=3).
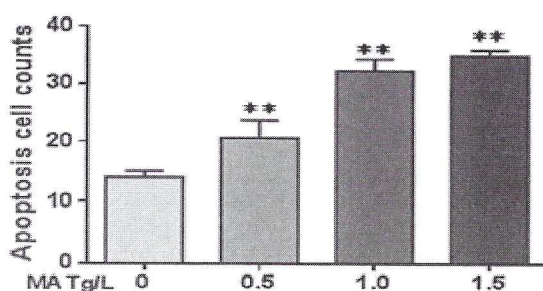
Appendix 2: Fig 2

Fig2. The effect of matrine (MAT) on the apoptosis of MGC-803 cells was detected by Hoechst staining (**$p < 0.01$, vs 0 g/L group; n=3).
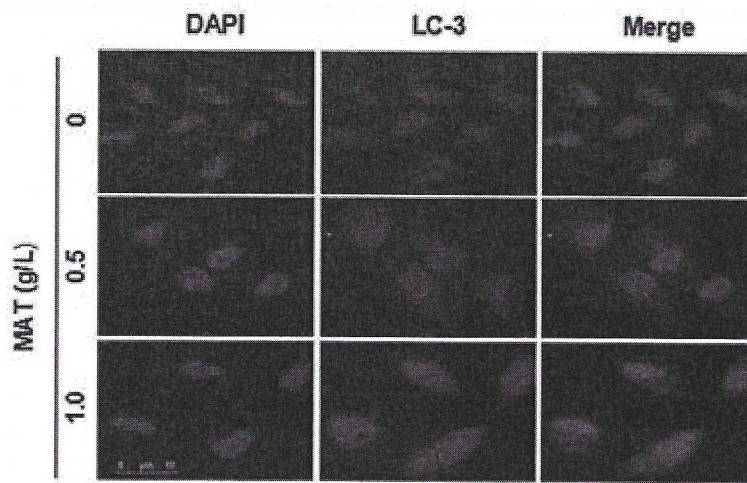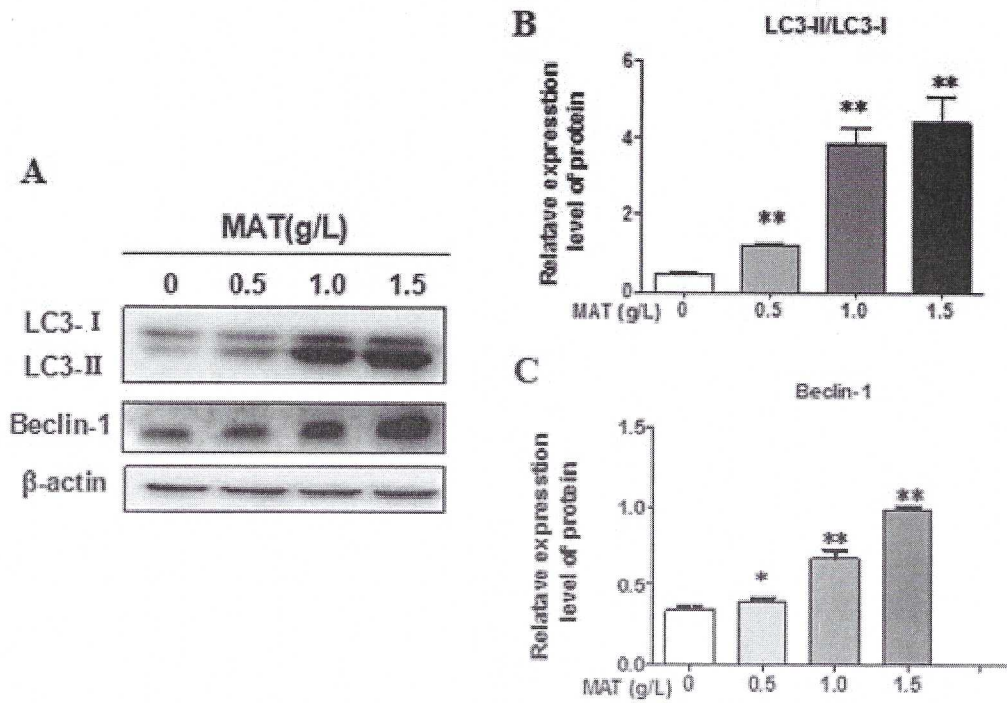
Appendix 3: Fig 3

Figure 3. The effect of MAT on the expression of LC-3 in MGC-803 cells was detected by immunofluorescence staining

Appendix 4: Fig 4

Fig. 4 The effect of matrine (MAT) on the protein expression of LC3 and Beclin-1 proteins in MGC-803 cells was detected by Western Blotting (*$p<0.05$, **$p<0.01$, vs 0 g/L group; n=3).
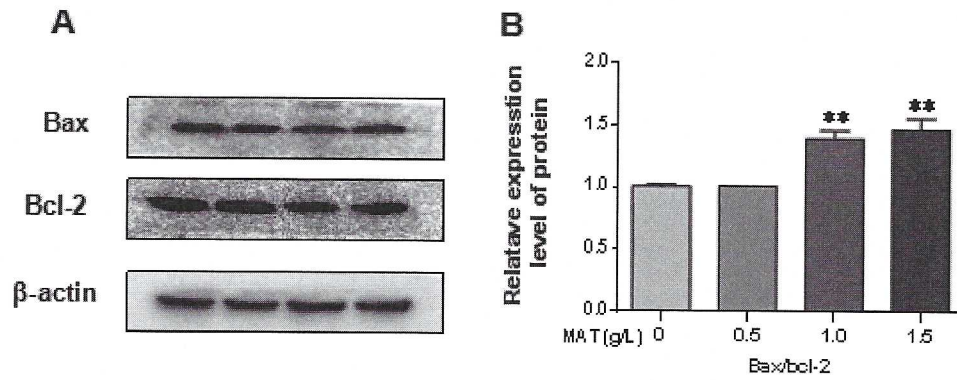
Appendix 5: Fig 5

Fig. 5 The effect of matrine (MAT) on the protein expression of apoptosis-related proteins in MGC-803 cells was detected by Western Blotting (**$p<0.01$, vs 0 g/L group; n=3).