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Cultivating Cultural Intelligence (CQ) through Experiential learning-based English Instruction at Beijing Polytechnic

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Abstract

The study aims to cultivate students' cultural intelligence (CQ) through experiential learning-based English instruction. The author used convenience sampling of her 2 teaching classes 53 students as the participants of the study. One class with 26 students was assigned to the experimental group and the other class consisting of 27 students was assigned to the control group. The author used quantitative methods: the Cultural Intelligence Scale (CQS) and a semi-structured interview (20 items) based on the CQS to collect data. The Scale's creators had done the validity test of the CQS, therefore, the author only did the reliability test of the whole Scale consisting of four parts of the four dimensions of the CQ , and got Cronbach α of 0.886, 0.837, 0.742, 0.777, and 0.824 respectively. Data collected from the experimental group were analysed after OD intervention and compared with the control group, which showed that the CQ development of the experimental group was higher than the control group. Since the pre-ODI and post-ODI data of the experimental group was not normally distributed, so the author used Wilcoxon Signed-rank test which required to use median to analyse the data. Since the data was not normally distributed, the author used the mean (average) of the media to compare the increase range of CQ in the experimental and the control class. Data showed that he experiential-learning based English instruction helped cultivate the 4 dimensions of CQ, more in the experimental class than those in the control class.

Keywords: cultural intelligence, experiential learning-based English instruction

Introduction

China's economy has taken off since the reform and opening-up policy in 1978. When a country's economy develops to a certain level, it will attach great importance to the

international communication of its culture, which is a common rule observed by countries on their way to rising (Bao, 2013).

As time goes by, the competition in international politics, the economy, and the military is gradually giving way to that of the soft power of culture and civilization (Jiang, 2013). Compared with China's economic ranks and political roles in the international community, its culture's international influence still needs improvement (Hong & Yan, 2014). According to *the 2018 Report of Global Survey and Analysis of China's National Image* published by the Academy of Contemporary China and World Studies, the respondents' average impression of China's international image was only 6.2 points. A good international image is a prerequisite for China to promote Chinese culture's international influence (Wei, 2020).

China has been paying a lot of attention to the communication of the Chinese culture to the world, however, the result is not satisfactory. Here are some reasons. First, cultures vary. As a result, there will be severe cognitive dissonance ranging from ideas and philosophy to Chinese cultural products and cultural symbols (Bao, 2013). Second, people who go abroad also have a lot to do with successful international communication of Chinese culture because, in most cases, culture is represented by people's words and behaviours (Bao, 2013). As a result, to communicate the Chinese culture abroad, it is more effective if Chinese people have intercultural communication knowledge, motivation and behave appropriately. Third, in China, the number of intercultural communication talents is far from enough. Take translators and interpreters, who are usually capable of communicating cultures due to the nature of their work, for example. According to statistics provided by the Translators Association of China, the number of professional translators and interpreters is only 60,000. There is a shortage of 100,000 high-level professional translators and interpreters (Zhang, 2011).

All in all, China suffers from an urgent need of intercultural communication talents who not only know a lot about different cultures but are also willing to put what they know into practise and are aware of cultural cues that remind them they are in another culture and need to act properly. This problem needs to be solved right away. This leads to the research objectives, i.e. to decide on a construct that involves intercultural awareness, willingness, knowledge, and behaviour as one that benefits the cultivation of intercultural communication talent as a whole; to decide on a scale that can test students' intercultural awareness, willingness, knowledge, and behaviour; to have a general idea of the current development level of students' intercultural awareness, willingness, knowledge, and behaviour; to design a new kind of English instruction that helps cultivate students' intercultural awareness, expands their

knowledge of different cultures, strengthens their willingness to translate knowledge into intercultural behaviour, and enables them to behave appropriately in different cultures, and to analyze if the new English instruction makes any difference in cultivating students' intercultural awareness, expanding their cultural knowledge, strengthening their willingness to translate knowledge into intercultural behaviour, and behaving appropriately in different cultures. The research questions are:

1. What is the possible construct that involves intercultural awareness, willingness, knowledge and behaviour as one?
2. What is the possible scale like that can be used to test intercultural awareness, willingness, knowledge and behaviour?
3. What is the current situation of the students' intercultural awareness, willingness, knowledge, and behaviour?
4. What is the new English instruction like that helps cultivate the students' intercultural awareness, willingness, knowledge, and behaviour?
5. How does the new English instruction cultivate students' intercultural awareness, willingness, knowledge, and behaviour?

Literature Review

When one country's culture spreads or transmits to another country's culture, inter-culture occurs (Wei, 2020). Therefore, the international communication of Chinese culture involves intercultural communication.

Development of intercultural communication

The concept of "intercultural communication" was first introduced by Hall in his book *The Silent Language* (Hall, 1959). There have been different definitions of intercultural communication. For example, according to Gudykunst and Kim (1994), it is a mutual and symbolic process that concerns meaning attribution between individuals belonging to different cultural backgrounds. It has also been defined by Samovar, et al. (1981). as producing, transmitting, and interpreting symbols through verbal and non-verbal channels between people of different national cultures. Although there are differences in specific definitions, they all focus on communicative encounters between people or groups with different cultural backgrounds. The communicative encounters include both verbal and non-verbal forms. According to the definitions, people who are good at intercultural communication must be

familiar with their own and other cultures. Usually, in intercultural encounters, someone or some people speak a language that is not their mother tongue (Baldwin & Hunt, 2002; San Antonio, 1987). This indicates that culture and language influence intercultural communication effectiveness, which again shows the significance of this study.

Key research areas and theories in intercultural communication

Cultures in the world are complex with different characteristics, hence provide a lot of research perspectives for intercultural communication. However, there are three key research areas that have been the focus of intercultural researchers : identity, intercultural communication competence, and adaptation (Croucher, et al., 2015).

Identity

In intercultural communication, there are two approaches to studying identity, namely the traditional approach and the modern approach (Banks & Banks, 1995). The former takes communication as an internal source of conflict and identity stress during which the communicators try to reduce anxiety and fear (Hall, 1992). Identity consists of several dimensions, including psychological and social factors (Merino & Tileagâ, 2001). Communicators' identities will be set up until they arrive at a mutual understanding and agreement on identity (Ting-Toomey, 1993). In contrast, the latter treats identity as animated and dynamic and will vary according to social context and time (Hoffman, 1989). Some popular theories about identity include:

Social Identity Theory (SIT) studies both personal and social identity. The former includes identity characteristics that are personal and not connected with cultural or social groups. The latter states that people keep and stress the identity that links them to a group and strengthens their self-image (Tajifel & Turner, 1979) .

Cultural identity is the stress people put on their emotional attachment or affiliation to a culture (Moriizumi, 2011). The more an individual is a core member of a culture, the more he/she understands the culture, including its beliefs, norms, symbols, etc.

Intercultural Communication competence (ICC)

It is generally defined as the knowledge, motivation, and skills to interact effectively and appropriately with members of a host culture (Chen, 1989; Spitzberg & Changnon, 2009; Wiseman, 2003). Today, more and more researchers agree that intercultural communication competence is made up of cognitive, affective, and behavioral attributes (Bennett, 2009).

The cognitive attribute refers to individuals' ability to perceive and accurately interpret verbal and non-verbal messages. Chen (2010, 2013) conceptualized the cognitive attribute as intercultural awareness. The measurement of it is culture-specific (Chen & Young, 2012). The affective attribute means the ability and motivation to appreciate, respect, and respond to the emotional and aesthetic experiences of host-culture members and accept cultural differences. Chen and Starosta (2000) conceptualized it as intercultural sensitivity. The measurement is cultural in general and includes self-monitoring, open-mindedness, etc. The behavioral attribute emphasizes the ability to function in the host society. It means whether individuals are perceived as socially normal or healthy (Kim, 2001). The measurement is a culture-general intercultural adroitness scale measuring flexibility, interaction relaxation, verbal and nonverbal message, skills, identity maintenance, and interaction management (Portalla & Chen, 2010).

Adaptation

Cultural adaptation is a process. In intercultural communication, there are two models that arouse the most attention: Berry's (2003) acculturation strategies and Kim's (1998, 2001) cross-cultural adaptation model.

Berry's model has four strategies that a newcomer to the culture can have: assimilation, separation, marginalization, and integration. In assimilation, the individual reduces the importance of his/her original culture and attempts to identify with the new culture; in separation, the newcomer keeps the original culture and tries to avoid interaction with the new culture; in marginalization, the individual is not interested in either the culture; or in integration, the newcomer is interested in keeping the original culture and learning the new culture at the same time. People can choose a strategy based on whether they want to keep their original culture or adopt the dominant culture.

Kim's cross-cultural adaptation model (1988, 2001) refers to adaptation as the dynamic process by which individuals, upon relocating to new, unfamiliar, or changed environments, establish (or reestablish) and maintain relatively stable, reciprocal, and functional relationships with those environments. It consists of several steps, including enculturation, deculturation, and acculturation of newcomers to the culture, and the final goal is assimilation into the new culture.

Reflections on the above-mentioned theories

The Social Identity Theory and Cultural Identity Theory cannot support the cultivation of talent for successful intercultural communication since it has not touched on cultural awareness,

willingness, knowledge, and behavior, which are what a successful talent needs in the intercultural communication field. The ICC was not treated as a whole in ICC theories. Even though more and more consensus has been reached about the affective, cognitive, and behavioral attributes as the three constituents of ICC, it seems the three attributes just exist separately. The measurement tools to test the three attributes are different. Berry's model is a dichotomous choice, which indicates that in research, equal numbers of participants would be put in each category, which means not all the categories may exist as expressed (Rudmin, 2003; Schwartz & Zamboanga, 2008). Besides, it is also doubtful that a person would like to lose his/her original culture and not adopt a new culture at the same time to be a person without a culture. There is no culture of free behavior (Berry & Ward, 2006). The problem of Kim's model is that the final goal is to assimilate into the new culture. There has been research showing how immigrants to a new culture cannot or are unwilling to culturally adapt to the new culture (Croucher, 2013a, 2009, 2008; Croucher & Cronn-Mills, 2011; Kramer, 2000; Sandel & Liang, 2010).

To sum up, the author needs to find some theories that not only cultivate individuals' original and host cultures so as to keep their original identity and communicate the Chinese culture at the same time but also focus on treating knowledge, awareness, willingness, and behavior together as a whole. Moreover, it would be better if there was an instrument to measure it as a whole.

Cultural intelligence

The concept of cultural intelligence (CQ) was first presented by Earley and Ang （2003）. Earley and Ang （2003） define it as an individual's capacity to work and effectively manage social interactions in different cultural settings. It focuses on the ability to learn, evaluate, and behave effectively in a different situation characterized by cultural diversity (Ang, e*t al.,* 2007) and helps people to learn continuously and better co-exist with individuals of different cultures. It consists of four dimensions: metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ.

Metacognitive CQ is a mental process that people use to acquire and understand cultural knowledge and accomplish cognitive tasks like planning, monitoring, and adjusting mental models of cultural norms. It occupies a central position in this conceptualization of cultural intelligence (Liao & Thomas, 2020). Thomas, et. al. (2008) propose that it is this element that allows the emergence of cultural intelligence from the interaction of its three constituent elements. Cognitive CQ refers to knowledge such as rules, norms, habits, and conventions that

can be acquired through educational and personal experiences. It requires adjusting pre-existing concepts like why and how individuals perform in the way they do. Motivational CQ is the motivation that individuals have to learn and act effectively in various situations (Templer, et. al., 2006). It shows the willingness or internal motivation to take part in intercultural experiences and learn how to handle the subtleties. Behavioral CQ is the ability to demonstrate appropriate behaviors in interactions with different cultures. It includes both verbal and non-verbal behaviors. According to Earley and Peterson (2004), a high-CQ person is able to figure out where new behaviors are needed and how to behave effectively.

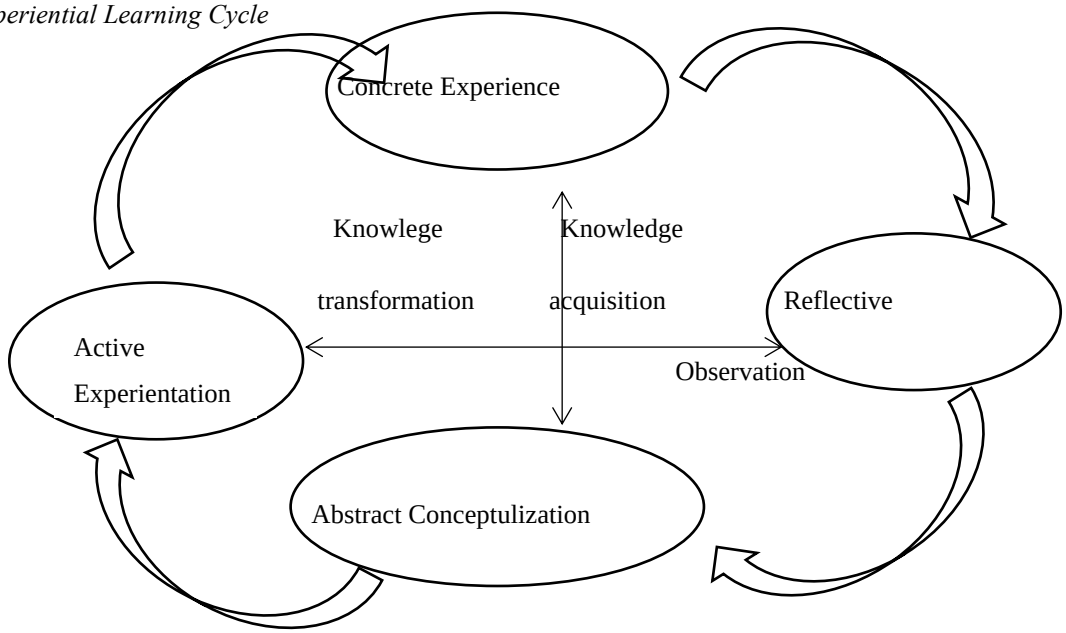
The Experiential Learning theory

Cultural intelligence can be developed (Earley & Ang, 2003; Ng, et al., 2009; Tan & Chua, 2003) . CQ development is viewed as an ongoing process of developing metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ (MacNab, 2012). This requires a process-oriented teaching and learning approach. Many articles in the fields of psychology, management, and education have proposed ways to develop cultural intelligence (Earley & Peterson, 2004; Ng & Earley, 2006; Tan & Chua, 2003; Thomas, et al., 2008; Thomas & Inkson, 2004). Of all the approaches mentioned in these articles, experiential approaches have been acknowledged as particularly effective (Rosenblatt, Worthley, & Macnab, 2013; Ng, et. al., 2009). Besides, experiential approaches have the potential to bridge the gap between thought and action, moving from a pure cognitive focus to a stronger inclusion of behavioral aspects (Foster, 2000).

The Experiential Learning Theory was proposed by Kolb (1976, 1984). It believes that learning is a continuous process grounded in experiences, and occurs through a sequence of four steps that create a learning cycle, as is shown in Figure 1. The four steps are: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Figure 1

Experiential Learning Cycle



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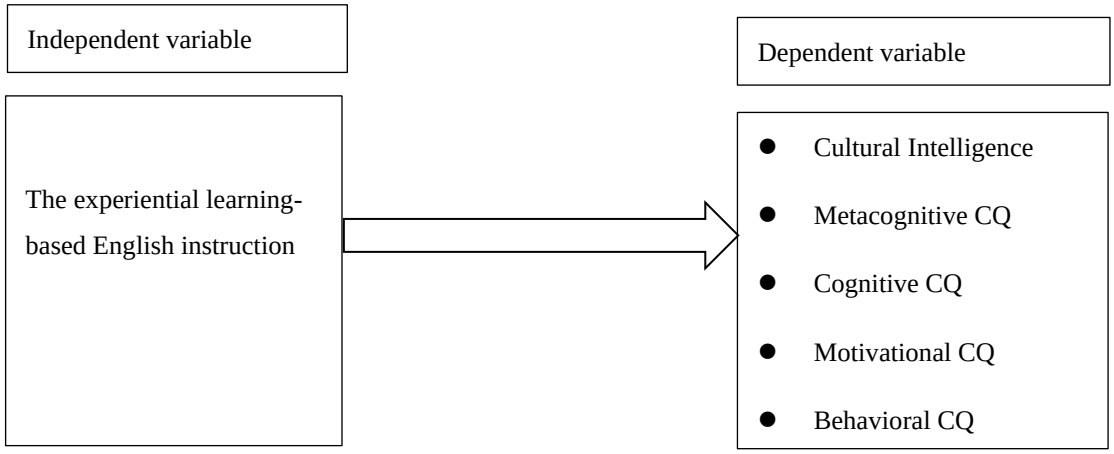
Concrete experiences refer to knowledge acquisition through sensory perception and direct practical experiences, namely experiential activities (Young, et al., 2008). It is the basis of the learning process. "The more personally relevant the experience, the more likely the students' minds and emotions will be engaged." Activities providing students with concrete experiences include cases, simulations, in-class demonstrations, lectures with anecdotes, videos, and current news article.

Reflective observation is the intentional consideration of particular learning objectives. It creates meaning through observation and inward reflection. Careful objective reflection enables learners to objectively analyze their experiences, how to relate to other experiences, and how the experiences can be integrated into further learning stages. Activities in this regard are personal journals, directed writing, structured classroom discussion, and self-assessment.

In the abstract conceptualization stage, learners widen their learning by integrating theories and concepts in the process, and they can transform concrete experience into a symbolic representation through model-building assignments, critique of models and theories, and concept mapping.

Active experimentation involves testing or applying concepts in practice through the “real world”. Activities include fieldwork, projects, "active" case studies, simulations, labs, and consulting projects. It emphasizes “doing”.

Although experiential learning is acknowledged as effective in developing cultural intelligence, cultural intelligence is new in China and needs research and practice. The author designed a new English instruction based on experiential learning to develop students’ cultural intelligence. The conceptual framework is as follows.



The research hypotheses are listed as follows:

H_{10} There is no difference in Chinese students’ cultural intelligence between the beginning and the end of the term.

H_{1a} There is a difference in Chinese students’ CQ between the beginning and the end of the term.

H_{20} The experiential learning-based English instruction doesn’t have a significant difference cultivating students’ metacognitive CQ.

H_{2a} The experiential learning-based English instruction has a significant difference in cultivating students’ metacognitive CQ.

H_{30} The experiential learning-based English instruction does not have a significant difference in cultivating students’ cognitive CQ.

H_{3a} The experiential learning-based English instruction has a significant difference in cultivating students’ cognitive CQ.

H_{40} The experiential learning-based English instruction does not have a significant difference in cultivating students' motivational CQ.

H_{4a} The experiential learning-based English instruction has a significant difference in cultivating students' motivational CQ.

H_{50} The experiential learning-based English instruction does not have a significant difference in cultivating students' behavioral CQ.

H_{5a} The experiential learning-based English instruction has a significant difference in cultivating students' behavioral CQ.

Research Methodology

The Model of the Study

The research was a quantitative one and took one term of 16 weeks of 24 sessions. Each session took 2 class periods of 90 minutes. The author chose two classes with one as the experimental class and the other the control class and used the 7-point Likert Cultural Intelligence Scale (with 1 standing for strongly disagreeing and 7 for strongly agreeing) to collect quantitative data from both classes about the four dimensions of cultural intelligence at the beginning and the end of the term and see if the experiential learning-based English instruction makes a difference in students' overall cultural intelligence and its four dimensions as well.

The Design of the Intervention

The English instruction in this research was based on Kolb's Experiential Learning Theory (1984) with the 4 learning steps of concrete experiences, reflective observation, abstract conceptualization, active experimentation. Under each step, there were different activities. The concrete experiences were in the form of cases, simulations, in-class demonstrations, lectures with anecdotes, videos, and discussion of experiences and current news articles. Reflective observation includes the activities of personal journals, directed writing, structured classroom discussion, and self-assessment. Abstract conceptualization took the form of model-building assignments, critiques of models and theories, and concept mapping. Active experimentation includes fieldwork, projects, "active" case studies, simulations, labs, and consulting projects.

The instruction content covered the following modules: cultures and values; attitudes and psychology in intercultural communication; intercultural verbal communication; intercultural nonverbal communication; intercultural adaptation; and intercultural personal relationships.

Table 1

OD Intervention Design

Session No.	Teaching content	Teaching procedures and activities
1	Cultural values – individualism and collectivism	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of the hidden values behind cases and personal experiences Step 3 Abstract Conceptualization: concept of individualism and collectivism Step 4 Active experimentation: simulations (role-play) in different cultural context Step 5 Teacher's feedback: feedback on whether students' behavior in the role-play part is appropriate
2	Cultural values – relationship specificity and diffusion	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of the hidden values behind cases and personal experiences Step 3 Abstract Conceptualization: Concept of relationship specificity and diffusion Step 4 Active experimentation: Act out the same situation in different cultural context Step 5 Teacher's feedback: feedback on whether students' behavior in the role-play part is appropriate
3	Cultural values – gender	Step 1 Concrete experiences: teacher's case introduction and related news articles Step 2 Reflective Observation: students' writing a personal journal of their opinion of gender Step 3 Abstract Conceptualization: concept of feminism and masculinism Step 4 Active experimentation: group-students' interview of males and females from the same country at different age and write a

		short report on the development of gender equality in China or in other countries Step 5 Teacher's feedback: feedback on students' report
4	Cultural values – power distance	Step 1 Concrete experiences: T's case introduction and students' similar personal experiences sharing Step 2 Reflective Observation: structured classroom discussion of the hidden values behind cases and personal experiences Step 3 Abstract Conceptualization: a critique of the concept of power distance in different cultures Step 4 Active experimentation: students' role-play of relationship between the employer and the employee in different cultures Step 5 Teacher's feedback: feedback on the appropriateness of students' behavior
5	Cultural values – uncertainty avoidance	Step 1 Concrete experiences: T's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: directed writings of self-assessment of their uncertainty avoidance Step 3 Abstract Conceptualization: critique of uncertainty avoidance Step 4 Active experimentation: act out people's uncertainty avoidance intention in different cultures Step 5 Teacher's feedback: feedback on the appropriateness of students' behavior
6	Cultural values – long-term and short-term orientation	Step 1 Concrete experiences: T's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of the hidden values behind cases and personal experiences Step 3 Abstract Conceptualization: critique of long-term and short-term orientation of different cultures Step 4 Active experimentation: act out long-term or short-term intention in different cultures

		Step 5 Teacher's feedback: feedback on the appropriateness of students' behavior
7	Cultural values – Time and work/study	Step 1 Concrete experiences: T's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of the hidden values behind cases and personal experiences Step 3 Abstract Conceptualization: T's lecture of values on time and work/study in different cultures Step 4 Active experimentation: Act out people's values on time and work/study through a play Step 5 Teacher's feedback: feedback on the appropriateness of students' behavior
8	Intercultural communication psychology and attitude – stereotype	Step 1 Concrete experiences: Teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of stereotype behind cases and personal experiences Step 3 Abstract Conceptualization: critique of stereotype Step 4 Active experimentation: group interview of people in different cultures about what they think of China and share the result with the whole class Step 5 Teacher's feedback: feedback on students' achievement from the interview
9	Intercultural communication psychology and attitude – prejudice	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of the reason for prejudice in different cultures Step 3 Abstract Conceptualization: a critique of prejudice Step 4 Active experimentation: analyze the group interview of people in different cultures about what they think of China conducted in the last class and see if there is prejudice against China.

		Step 5 Teacher's feedback: feedback on students' achievement from the interview
10	Intercultural communication psychology and attitude – birth-giving policy and attitude	Step 1 Concrete experiences: teacher's case introduction Step 2 Reflective Observation: structured classroom discussion of birth-giving policy in different cultures Step 3 Abstract Conceptualization: personal experience and inter-cultural communication ability Step 4 Active experimentation: students' group interview of people's attitude toward birth-giving in different cultures and write a report Step 5 Teacher's feedback: feedback on students' report
11	Intercultural communication psychology and attitude – ethnocentrism and racism	Step 1 Concrete experiences: videos of famous speech or film related to race equality Step 2 Reflective Observation: structured classroom discussion of the reasons for racism Step 3 Abstract Conceptualization: teacher's lecture of race equality Step 4 Active experimentation: students' critique of racist Step 5 Teacher's feedback: feedback on students' critique
12	Intercultural communication psychology and attitude – religion and culture	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of culture and religion Step 3 Abstract Conceptualization: Case analysis Step 4 Active experimentation: act out appropriate behavior in different religious cultures Step 5 Teacher's feedback: feedback on the appropriateness of students' behavior in the play
13	Intercultural verbal communication – taboos	Step 1 Concrete experiences: teacher's case introduction and student's similar personal appearance sharing

		Step 2 Reflective Observation: structured classroom discussion of different taboos Step 3 Abstract Conceptualization: concept of taboo in different cultures Step 4 Active experimentation: role-play for other students to find out the taboos in the play Step 5 Teacher's feedback: feedback on the accuracy of taboos in the play
14	Intercultural verbal communication – salute	Step 1 Concrete experiences: teacher's case introduction and students' sharing of how to salute in different cultures Step 2 Reflective Observation: structured classroom discussion of ways of salute Step 3 Abstract Conceptualization: the concept of empathy Step 4 Active experimentation: students' acting out different ways of salute Step 5 Teacher's feedback: feedback on the appropriateness of salute
15	Intercultural verbal communication – power of language	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing / video clip of famous speeches Step 2 Reflective Observation: Step 3 Abstract Conceptualization: intercultural communicative competence model Step 4 Active experimentation: act out the power of language in different situations Step 5 Teacher's feedback: feedback on students' play
16	Intercultural nonverbal communication – arms-crossing	Step 1 Concrete experiences: teacher's case introduction Step 2 Reflective Observation: directed writing of the meaning of arms-crossing in different cultures Step 3 Abstract Conceptualization: concept mapping of socialization

		Step 4 Active experimentation: act out different ways of greetings Step 5 Teacher's feedback: feedback about the appropriates of students' behavior in the play
17	Intercultural nonverbal communication – bowing	Step 1 Concrete experiences: teacher's case introduction Step 2 Reflective Observation: structured classroom discussion of bowing Step 3 Abstract Conceptualization: concept mapping of body language Step 4 Active experimentation: act out different body posture and explain its meaning Step 5 Teacher's feedback: feedback about the appropriates of students' behavior in the play
18	Intercultural nonverbal communication – personal space	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of the importance of personal space and the hidden value behind Step 3 Abstract Conceptualization: teacher's lecture on personal space Step 4 Active experimentation: act out the appropriate personal space in different cultures Step 5 Teacher's feedback: feedback about students' performance in the ply
19	Intercultural nonverbal communication – body contact	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of different opinion of body contact Step 3 Abstract Conceptualization: concept mapping of body contact Step 4 Active experimentation: act out appropriate body contact behavior in different cultures Step 5 Teacher's feedback: feedback about students' behavior in the play

20	Cultural adaptation - appearance	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of Chinese and other clothing cultures Step 3 Abstract Conceptualization: group interview of Chinese clothing teachers to know the hidden values behind the Chinese clothing culture Step 4 Active experimentation: students' designing a piece of Chinese clothes based on the Chinese culture Step 5 Teacher's feedback: feedback on students' design work
21	Cultural adaptation – face-negotiation	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: directed writing of "face" in China Step 3 Abstract Conceptualization: the face negotiation theory Step 4 Active experimentation: act out how people in different cultures behave in the same situation Step 5 Teacher's feedback: feedback about students' performance
22	Cultural adaptation – praise	Step 1 Concrete experiences: teacher's case introduction and students' similar personal experience sharing Step 2 Reflective Observation: structured classroom discussion of praise culture Step 3 Abstract Conceptualization: the high- and low- context culture Step 4 Active experimentation: act out how people in different cultures respond to praises Step 5 Teacher's feedback: feedback on students' behavior in the play
23	Cultural adaptation – foods and drinks	Step 1 Concrete experiences: teacher's case introduction Step 2 Reflective Observation: structured classroom discussion of China's cuisine culture and table manners Step 3 Abstract Conceptualization: 3 levels of culture

		Step 4 Active experimentation: experience Chinese and western table manners Step 5 Teacher's feedback: feedback on students' behavior in having Chinese and western dinner
24	Cultural adaptation – family	Step 1 Concrete experiences: teacher's case introduction Step 2 Reflection Observation: students' directed writing of what they think of family Step 3 Abstract Conceptualization: Step 4 Active experimentation: act out family culture in different countries Step 5 Teacher's feedback: feedback on students' performance

Population and Sample

The population consists of 1295 students in Beijing Polytechnic. This author used convenience sampling to form an experimental class and a control class, respectively. This author was an English teacher and taught the English course of the two classes using the same curriculum with one of the two classes being the experimental class of 26 students and the other the control class of 27 students.

Table 2

Population and sample

Population	Sample Size	Sampling Method
1295 students	53 students	Convenience Sampling

The implementation of the intervention

The English instruction was implemented in the experimental class for one whole term of 16 weeks of 24 sessions with each session of 2 class periods of 90 minutes, while the control group was instructed in the traditional lecturing way. At the beginning of the term, all students from the two classes were tested with the CQS. Besides, an interview was conducted with the

experiment so that the author had a whole picture of their cultural intelligence development before the intervention.

In class, the author followed the ODI Intervention Design (Table 1) step by step in detail. During each session, the concrete experience took about 10-15 minutes. The reflective observations took 15-20 minutes. The abstract conceptualization took about 15-20 minutes. The active experimentation period took 20-30 minutes, and teacher's feedback took about 10-15 minutes.

Data Collection Tools

Cultural Intelligence Scale (CQS) and a semi-structured interview protocol based on the CQS were used in the research.

The Cultural Intelligence Scale (CQS) was proposed and developed by Ang, et. al. It consisted of 4 dimensions of cultural intelligence and had 20 items. It was in a 7-point Likert form with 1 standing for strongly disagreeing and 7 for strongly agreeing.

Table 3

Items and Corresponding CQ of the CQS

Item No.	Corresponding CQ	Item No.	Corresponding CQ	Item No.	Corresponding CQ	Item No.	Corresponding CQ
1	Metacognitive CQ	5	Cognitive CQ	11	Motivational CQ	16	Behavioral CQ
2		6		12		17	
3		7		13		18	
4		8		14		19	
		9		15		20	
		10					

The creator of the CQS did the validity test. The following table showed that there were strong relationships between the items and their scales, which supported the fact that the test was internally consistent.

Table 4

Internal Consistency Test Result of the 4 Factors of the CQS

X2 (164df)	NNFI	CFI	SRMR	RMSEA
822.26	*0.91*	*0.92*	*0.06*	0.08 ($p < 0.05$)
Inter-correlations	*Acceptable Variances*	*Item-to-total Correlations*	*Standardized factor loadings*	
0.21-0.45	*0.75-1.03*	*0.47-0.71*	*0.52-0.8*	

Table 5

Cross-Validation of the CQS across Samples

CFA	N	X2 (164df)	NNFI	*CFI*	*SRMR*	*RMSEA*
	447	381.28	0.96	0.96	0.04	0.05 ($p < 0.05$)

Standardized loadings	Correlations between factors	Acceptable variances	Item-to-total correlations
0.50-0.79	0.23-0.37	0.87-1.05	0.46-0.66

Generalizability of the Cultural Intelligence Scale (CQS) across time. A subset of respondents from the Singapore cross-validation sample (N = 204, 76% female, mean age of 20) took the CQS again four months later. The author examined T1–T2 longitudinal measurement invariance using CFA and an augmented covariance matrix as input (rather than a multi-sample approach) to account for time-wise correlated errors (Vandenberg and Lance, 2000). The CQS author used a 20-item by two-measurement occasion matrix and specified eight latent variables (four T1 CQ factors and four T2 CQ factors), with unique variances of identical items correlated across time. Following the procedure suggested by Vandenberg and Lance (2000), they began with a correlated four-factor model with no constraints (parameters at T1 and T2 freely estimated). Results demonstrated acceptable fit.

Table 6

Generalizability of the CQS across Time

Model A	X2 (692df)
	981.18
X^2difference between Models A and B	X^2 difference between Models B and C
$\triangle X^2$（16df）=22.79, p = ns	$\triangle X^2$ (14df) = 17.59, p = ns

The X^2difference between Models A and B (factor loadings constrained to be invariant) failed to reach significance ($\triangle X^2$（16df）=22.79, p = ns), providing strong support for invariance in factor loadings across T1 and T2. The X^2 difference between Models B and C (item intercepts constrained to be invariant) also failed to reach significance ($\triangle X^2$ (14df) = 17.59, p = ns), providing support for item intercept invariance.

Cultural Intelligence is new to the Chinese, so is the CQS. To make sure the data gathered from the CQS was trustworthy, the author conducted a reliability test of the CQS. To make sure the scale could be understood well in the reliability test, the author, an English major passing the National Test for English Majors Level 8 by the Ministry of Education and awarded the International Conference Interpreter Certificate by the European Commission, translated the English version of the scale into Chinese, and then the author asked another translation major colleague, who was awarded China Accreditation Test for Translators and Interpreters Level 2 by Ministry of Human Resources and Social Security, to translate the Chinese version into the English version. The author asked an English native speaker who worked for Beijing Polytechnic to see if the translated English version of the scale and the original English version of the sale were equivalent in meaning. The native speaker gave a positive answer, which meant the translated Chinese version of the scale could be applied to the potential Chinese respondents. The Cronbach alpha of the Scale as a whole and its four subscales corresponding to the four dimensions of the CQ shows the Scale was reliable.

Figure 2

The Cronbach α of the Whole Scale

Case Processing Summary

		N	%
Cases	Valid	295	100
	Excluded[a]	0	0
	Total	295	100

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.886	0.887	20

Figure 3

The Cronbach α of the metacognitive cultural intelligence

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.837	0.841	4

Figure 4

The Cronbach α of the cognitive cultural intelligence

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.742	0.748	6

Figure 5

The Cronbach α of the motivational cultural intelligence

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.777	0.782	5

Figure 6

The Cronbach α of the behavioral cultural intelligence

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.824	0.822	5

The semi-structure interview was based on the Scale with 20 questions. The validity and the reliability of the Scale has been tested and the interview was given to the students to have a general idea of the then-development of their CQ.

Data Analysis

Data analysis of CQ development of the experimental class at the beginning and the end of the term

The author first did the normality distribution test, finding that both data collected through the CQS at the beginning and the end of the term were not normally distributed. Considering that the sample size in the experimental class was less than 30, the author used Wilcoxon Signed- rank Test to analyze the data. The *p* value is 0.000, and the T (negative ranks) is also 0.00.

Figure 7

The Normality Test Result of Pre-ODI Phase (Shaprio-Wilktest)

Tests of Normality

Item No. in CQS	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
1	0.215	25	0.004	0.864	25	0.003
2	0.17	25	0.061	0.915	25	0.04
3	0.213	25	0.005	0.909	25	0.029
4	0.157	25	0.112	0.915	25	0.039
5	0.211	25	0.005	0.924	25	0.063
6	0.249	25	0	0.909	25	0.029
7	0.16	25	0.098	0.949	25	0.238
8	0.209	25	0.006	0.918	25	0.046
9	0.256	25	0	0.866	25	0.004
10	0.273	25	0	0.889	25	0.01
11	0.152	25	0.139	0.888	25	0.01

12	0.189	25	0.022	0.931	25	0.092
13	0.227	25	0.002	0.896	25	0.015
14	0.196	25	0.015	0.928	25	0.078
15	0.194	25	0.016	0.935	25	0.115
16	0.239	25	0.001	0.872	25	0.005
17	0.184	25	0.028	0.924	25	0.063
18	0.18	25	0.036	0.922	25	0.057
19	0.236	25	0.001	0.883	25	0.008
20	0.195	25	0.015	0.918	25	0.046

Figure 8

The Normality Test Result of Post-ODI Phase (Shaprio-Wilktest)

Tests of Normality

Item No. in CQS	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
1	0.233	25	0.001	0.78	25	0
2	0.258	25	0	0.72	25	0
3	0.21	25	0.006	0.807	25	0
4	0.276	25	0	0.778	25	0
5	0.196	25	0.014	0.857	25	0.002
6	0.195	25	0.015	0.88	25	0.007
7	0.215	25	0.004	0.858	25	0.003
8	0.209	25	0.006	0.864	25	0.003

9	0.214	25	0.005	0.864	25	0.003
10	0.185	25	0.027	0.877	25	0.006
11	0.207	25	0.007	0.864	25	0.003
12	0.198	25	0.013	0.871	25	0.005
13	0.217	25	0.004	0.861	25	0.003
14	0.192	25	0.019	0.819	25	0
15	0.153	25	0.133	0.897	25	0.016
16	0.232	25	0.001	0.848	25	0.002
17	0.24	25	0.001	0.799	25	0
18	0.19	25	0.021	0.877	25	0.006
19	0.262	25	0	0.812	25	0
20	0.194	25	0.016	0.88	25	0.007

Figure 9

Wilcoxon Signed-ranked Test Result

Ranks

		N	Mean Rank	Sum of Ranks
VAR00002 - VAR00001	Negative Ranks	0[a]	0	0
	Positive Ranks	16[b]	8.5	136
	Ties	4[c]		
	Total	20		

a. VAR00002 < VAR00001

b. VAR00002 > VAR00001

c. VAR00002 = VAR00001

Test Statistics[a]

	VAR00002 - VAR00001
Z	-3.666[b]
Asymp. Sig. (2-tailed)	0

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Figure 10

The Pre- and Post-ODI Median of the Experimental Class

CQ dimension	Item No.	Experiment class		
		Pre-ODI median	Post-ODI median	Increase (+) or decrease (-) by
Metacognitive	1	6	6	0
	2	5	6	1
	3	6	6	0
	4	5	6	1
Cognitive	5	4	6	2
	6	4	6	2
	7	4	6	2
	8	4	6	2

	9	4	6	2
Motivational	10	4	5	1
	11	5	5	0
	12	5	6	1
	13	6	6	0
	14	4	5	1
	15	4	5	1
Behavioral	16	5	6	1
	17	5	6	1
	18	5	6	1
	19	5	6	1
	20	5	6	1

Data analysis CQ development of the control class at the beginning and the end of the term

The control class used the traditional lecturing English instruction. The author calculated the median increases of each item in the CQS, finding that the median of 13 items increased, the median of 6 items remained the same, and the median of one item decreased.

Figure 11

The Median of the Control Class at the Beginning and End of the Term

CQ dimension	Item No.	Control Class		
		The median at the beginning of the term	The median at the end of the term	Increase (+)or decrease (-) by
Metacognitive	1	5	6	1
	2	4	5	1

	3	4	5	1
	4	5	5.5	0.5
Cognitive	5	3	4	1
	6	4	5	1
	7	4	4	0
	8	4	4	0
	9	4	4	0
Motivational	10	4	5	1
	11	4	5.5	1.5
	12	5	5	0
	13	4	4.5	0.5
	14	4	3.5	-0.5
	15	4	4	0
Behavioral	16	4	4	0
	17	4	5	1
	18	4	5	1
	19	4	5	1
	20	4	5	1

Data comparison CQ development between the experiment and the control class

The following data shows that the overall cultural intelligence of both the experiment and the control class improved. However, the increase was much higher in the experimental class than in the control class.

Table 7

CQ Development of the Experimental and the Control Class

	Average of the CQ medians (Pre-ODI)	Average of the CQ medians (Post-ODI)	Increase
Experimental class	4.75	5.8	+1.05
Control class	4.1	4.7	+0.6

The following table is the average of medians of each dimension of the CQ. It shows the experiential learning-based English class helped students improve their metacognitive CQ, but the improvement was less than what was seen in the control class. The students' cognitive CQ, motivational CQ and behavioral CQ increased more in the experimental class.

Table 8

Development of the 4 Factor of the CQ of the Experimental and the Control Class

	Metacognitive CQ		Cognitive CQ		Motivational CQ		Behavioral CQ	
	Pre-ODI	Post-ODI	Pre-ODI	Post-ODI	Pre-ODI	Post-ODI	Pre-ODI	Post-ODI
Experimental class	5.5	6	4	6	4.67	5.33	5	6
Control class	4.5	5.375	3.8	4.2	4.17	4.58	4	4.8

Results and Discussion

Results

The research reveals several findings. First, there was a bigger difference in Chinese students' CQ in the experimental class in the beginning and at the end of the term. Second, the experiential learning-based English instruction helped cultivate students' metacognitive CQ in the experimental group. However, compared with the control class, the experiential learning-based English instruction did not improve students' metacognitive CQ more. Third, the experiential learning-based English instruction helped cultivate students' cognitive CQ more in the experimental group. Fourth, the experiential learning-based English instruction helped cultivate students' motivational CQ more in the experimental group. Fifth, the experiential

learning-based English instruction helped cultivate students' behavioral CQ more in the experimental group.

Discussion

The experiential-learning English instruction makes a bigger difference in students' cultural intelligence (CQ) in the experimental class.

Both experiential-learning-based theory and Cultural Intelligence Theory favor a holistic approach with the learner at the center, encouraging active learning and aiming for an integrative and transformative experience (Roux, et al., 2020). Both theories support processing development (MacNab, 2012; Eisenberg et al., 2013). This made it easier to use experiential learning-based English instruction to help students develop their cultural intelligence. At the concrete experience period, the author showed cases of misunderstandings in cross-cultural communication, gave lectures about different cultures. Students grasped cross-cultural knowledge about rules, norms, and so on, which helped improve students' cognitive CQ. In reflective observation, students either wrote journals independently to reflect on the reasons for the misunderstanding based on the previous phase of concrete experience or had an in-class discussion to analyze the reasons behind the misunderstanding. In this period, cultural conflicts began to pop up. Students found what was quite different from their own culture. Learning was propelled by conflicts, differences, or disagreements. The tensions caused by the conflicts, or differences, or disagreements were resolved in the iteration of movement back and forth between opposing modes of reflection and action and feeling and thinking (Passarelli & Kolb, 2011). As a result, by self-reflecting or discussing with others, students gradually formed the awareness of cross-cultural communication deep in their minds, and their future actions in intercultural communication scenarios were also influenced, which in turn cultivated students' metacognitive and behavioral CQ. In the abstract conceptualization period, students began to do critical thinking by comparing differences between cultures in a systematic way and forming a specific cross-cultural concept and a cultural model. In this way, students deepened not only their understanding of cultural knowledge but also their cross-cultural thinking or awareness. As a result, during the model or concept forming process, both their cognitive and metacognitive CQ were improved. In the active experimentation period, students put what they learnt or reflected into action by role-playing in and after class, or by practicing with foreign friends after class, if they had some friends from other cultures. In this way, students' behavioral CQ was directly cultivated, and during the process, since they stepped out into a new world of behaving in a different culture, their motivation to engage in cross-cultural communication was also increased or boosted. Finally, the teacher gave feedback whenever

students showed their understanding, knowledge, or cultural performance. The feedback helped students to better understand their progress and weaknesses, which in turn helped students' future learning in the next learning cycle.

However, in the control group, the traditional lecturing didn't cultivate students CQ and its four parts as effectively as the experimental-learning-based English instruction did.

To sum up, the experiential-learning-based English instruction focused on the dynamic learning process during which students' whole cultural intelligence made a difference compared with that at the beginning of the term. This could be seen from the data results that were gained after the Wilcoxon Signed-rank test. According to the Wilcoxon Signed-rank Test, if the p value is less than 0.05 and if the T value absolute, be it the positive or the negative one, is smaller than the critical value, the null hypothesis will be rejected. For the experiment group, the p value is 0.000, and the T (negative) value is also 0.00 less than the critical value when the number of the matched data group is 20. This means that H_{1a} There is a difference in Chinese students' CQ between the beginning and the end of the term is supported.

The experiential-learning English instruction has a significant difference in cultivating students' metacognitive cultural intelligence.

At the beginning of each class, in the concrete experience period, the author gave students one or two cases, either in written or video form, falling into a certain cultural category, like individualism versus collectivism; relationship specificity and diffusion; gender; power distance; uncertainty avoidance; long-term versus short-term orientation; time and work/study; intercultural communication psychology and attitude; intercultural behavior (verbal or non-verbal) – religious customs, taboos, salute; cultural adaptation – appearance (clothing), extreme self-esteem and negotiation; food and drinks; and family. In some cases, students echoed the materials provided by the teacher with news articles they had read before. Such cases or the content carried in the materials always gave students some cultural shock, since what they saw or read from the cases was different from their life in China. Take the power distance, for example. In the case provided by the researcher, the young just called the elderly by the latter's given name, which was quite different from China. Students had a first impression of the cultural difference or shock during this period, which directly touched their cultural awareness. Then in the reflection observation period, with the cultural shock in their mind, students were guided to have an in-class discussion and share their thoughts and analyze the reasons for the cultural shock. During this process, they gradually formed and deepened the awareness that cultures were different. Besides, after discussing the cases, students formed the concept of

hierarchy and power distance, which was an important concept in intercultural communication. Such a concept would guide their future intercultural communication in turn, during which the concept was reinforced in their minds. As a result, their metacognitive cultural intelligence was cultivated. At the beginning of the term in the experimental class, the median of the metacognitive cultural intelligence data was 5.5, while at the end of the term, the median increased to 6. Hence H_{2a} was supported.

However, one interesting finding was that compared with the control class, the increase in the metacognitive cultural intelligence of the experimental class under the experiential learning-based English instruction was not as much as that of the control class.The reason might have something to do with students' English proficiency. According to Hall (1992), communication was an internal source of conflict and identity stress during which the communicators tried to reduce anxiety and fear. As a result, their attention was drawn more to the English language quality, focusing more on how to express themselves clearly than on fully immersing themselves in thinking about the reasons for the cultural misunderstanding, which adversely impacted the development of the metacognitive cultural intelligence. Besides, according to the Social Identity Theory, the identity that decides whether people are in a group or out of a group will affect people's self-esteem, inter-group relationships, or conflicts (Roozen & Shulman, 2014). Students who were low in language proficiency felt embarrassed in a group because of their low contribution to the discussion, and this also impacted the development of metacognitive cultural intelligence. However, in the control class, students just listened to the teacher, and they need not worry about expressing themselves or discussing questions or their identity in a group. Their attention was fully drawn to the cases, and they could think about the cases fully by themselves. Such quietness or a stable mind state helped them develop more metacognitive cultural intelligence.

The experiential-learning English instruction has a significant difference in cultivating students' cognitive cultural intelligence.

In the concrete experience period, when students read the cases, they not only felt the cultural differences or cultural shock but also learnt how people in other cultures behaved verbally or non-verbally, what perspectives they were taking when treating some issues, and so on. This is a direct way of getting knowledge, too. Besides, in this phase, the author gave lectures directly about cultural knowledge, like cultural values, cultural behavior, or practice, which also broadened students' horizons. Actually, besides cases and lectures, the author also referred to other different ways to facilitate students' access to cultural experiences like watching videos, discussing personal experiences or current news articles. In this way, students

collected cultural knowledge in pieces. After having a reflective observation period where students shared thoughts or wrote journals about their thoughts, students gradually organized their thinking, and in the abstract conceptualization period, students found it easier to build cultural concepts or models or give critiques of certain cultural theories. In this process, the students' cultural knowledge was enriched. Therefore, students' cognitive cultural intelligence were cultivated. Concrete experiences are the basis of learning and reflective observation, which will be assimilated and distilled into abstract concepts (Kolb, et al., 2000). In this way, knowledge was gained.

Another point worth paying attention to was that during the abstract conceptualization, students built the cultural concepts or models or gave critiques of certain cultural theories. In this process, they inevitably compared Chinese culture with other cultures. As a result, when they absorbed foreign cultures, their own cultural identity was also reinforced. Social identity theory and cultural identity remind us that to strengthen international communication of Chinese culture, the Chinese people should have a strong identification with their own cultural identity, which is a precondition for successful international communication of Chinese culture (Bao, 2013). Therefore, the abstract conceptualization period not only helped cultivate students' cognitive cultural intelligence but also laid a sound foundation for the international communication of Chinese culture by stressing students' own cultural identity.

The development of students' cognitive and cultural intelligence could be proved by the research data. The increase in the average of medians showsv the experiential learning-based English instruction helped cultivate students' cognitive CQ. Hence, $H3_a$ was supported.

The experiential-learning English instruction has a significant difference in cultivating students' motivational and behavioral cultural intelligence.

Experiential approaches have the potential to bridge the gap between thought and action, moving from a pure cognitive focus to a stronger inclusion of behavioral aspects (Foster, 2000).

In the research, after the concrete experience, reflective observation, and abstract observation periods, students accumulated knowledge about cultural differences and what they should pay attention to when dealing with different cultures. At the same time, due to the cultivation of metacognitive cultural intelligence, they were aware of using different cultural knowledge when interacting with people from different cultures and understood the necessity to adjust cultural knowledge when interacting with people of different cultural backgrounds. In the active experimentation period, the teacher designed various activities for students to practice what they had learnt, including field work or active case studies, namely to put what

was learnt into practice in communication with foreigners. Most of the time, the author asked students to role-play the cases used in the concrete experience period. In the role-play, students were expected to behave appropriately in the situation, as shown in the cases. One thing that needs paying attention to was that, due to the influence of the Chinese extreme self-esteem culture, some students were too shy or not confident enough to participate in active experimentation. Therefore, the teacher had to use encouraging words or gestures to help students overcome their shyness or build up the confidence to act out for themselves. According to the feedback of students, they always had a sense of achievement after the field work or role-play.

The increase in the median average shows the experiential learning-based English instruction helped cultivate students' motivational CQ. Hence, H_{4a} was supported. Besides, the increase of the average of median of behavioral CQ shows the experiential learning-based English instruction helped cultivate students' behavioral CQ. Hence H_{5a} was supported.

Conclusion and Recommendations

According to the research, the experiential-learning-based English instruction made a difference in students' overall cultural intelligence. It helped cultivate students' metacognitive cultural intelligence, cognitive cultural intelligence, motivational cultural intelligence, and behavioral cultural intelligence.

However, there are several limitations to the research. First, the research was only a case study. Therefore, there is a generalization limitation. Second, the sample was conveniently chosen. All the students in both the experiment and the control class were the researcher's students. The teacher-student relationship might facilitate the research in several ways, such as better interaction and cooperation when the research is ongoing.

There are several points that have not been touched on in the research. For example, what is the relationship among the four dimensions of cultural intelligence, namely metacognitive cultural intelligence, cognitive cultural intelligence, motivational cultural intelligence, and behavioral cultural intelligence? How do they influence each other? Besides, according to the Experiential Learning Theory, learners could be divided into four categories based on their approach to obtaining knowledge, i.e., diverges, assimilators, converges, and accommodators. Diverges like learning through concrete experience and process learning by means of reflective observation. They are good at imagination and awareness of meaning and values. They are more likely to have a wide range of cultural interests and be interested in people. Accommodators are good at learning from "hands-on" experience. They like learning

knowledge through concrete experiences but prefer to process it through active experimentation. They feel good with people but can sometimes become impatient. Assimilators like learning through abstract conceptualization and processing it with reflective observation. They are good at forming theoretical models, but do not pay much attention to people. They favor ideas and abstract concepts. The converges approach knowledge through abstract conceptualization. However, they favor processing learning through active experimentation. They prefer to deal with technical tasks and problems, and they do not like to deal with interpersonal and social issues. Their strength lies in solving problems, making decisions, and the practical application of ideas. How will the different learner styles influence the cultivation and development of overall cultural intelligence and its four dimensions could be explored further? In addition, students in the research do not have strong English proficiency, which impacts their performance in different class activities. How will second-language proficiency influence students' development of overall cultural intelligence and its dimensions in second-language classes is another topic researchers could look into. Finally, in the research, several students had overseas travelling experiences before they were admitted into Beijing Polytechnic or had a foreign pal. How will international contact influence the development of cultural intelligence? The author suggested that all the questions mentioned above could be studied further and fill in the gap of the study.

All in all, the experiential-learning English instruction helped cultivate students CQ and its four parts more than the traditional lecturing. However, there is a lot to be studied in the future as mentioned above.

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