

4 ICC cultivation in a multiform course mode

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Abstract

 \mathbf{T} ith the present situation of economic globalization, simple inter-flows of information within and between countries have become standard to meet the development needs of college and university students, who now require and demand intercultural communication to improve their understanding of the globalized world. In recent years, online platforms have dramatically changed the traditional face-to-face communication methods and provide a learning environment without time and place restrictions. With the construction of international online platforms, real intercultural communication conditions have been provided for students to improve their Intercultural Communication Competence (ICC) and English skills where they were not available before. This study outlines an online teaching method and design of a new multiform course mode that consists of two online platforms. Eleven random classes of 330 university students were observed in this study. All of them were enrolled in a four-month course of intercultural communication in the spring semester of 2017 at a science and technology university in China. Students were divided into two groups, Group A had five classes of students who participated in the new course mode and Group B was the other group which had six classes under the traditional classroom teaching mode. This study aims to find if the special course mode would help develop ICC among college students who stay in a domestic context, through an analysis of the variation of

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the two groups' ICC before and after the course. This research adopts a mixed methods approach that includes questionnaires, online platform observations, and students' reflective journals to test students' cultural intelligence before and after they have had the intercultural communication course. The findings provide a basis and reference for future ICC cultivation, especially regarding the construction of online ICC cultivating platforms.

Keywords: college students, intercultural communication competence, online learning platform, cultural intelligence.

1. Introduction

1.1. Cultivation of ICC

Traditionally in college English courses in China, the most important thing for students was to pass different tests and get certificates. Cultivation of ICC was not taken seriously. Students could only learn from books and teachers, that is, without being in a real intercultural environment. Such English language learning would lead to cultural mistakes when they really interacted with people from another culture. Therefore, the mode needed to be changed urgently and many Chinese scholars have begun to try.

As new teaching methods in language courses emerged, application of network technologies became widespread. E-teaching is now a major trend and has become increasingly popular. Colleges and universities have already built some online learning platforms to change students' traditional learning methods and help teachers gain access to more teaching resources. As a part of language learning, ICC cultivation is the same. Network teaching platforms provide teachers and students with a virtual communication means where teachers are able to attain information and feedback efficiently. Students have no limitations of time or space when studying in online courses. They can choose when and

what to learn. Additionally, teachers can make full use of the network teaching platform, utilizing multimedia learning resources on the Internet and creating different courseware for learners. Younos (2012) considers the main goal of online teaching platforms as being to create social interactions to motivate students. Kuo, Walker, Schroder, and Belland (2014) indicate that in online programs, "interaction is a critical indicator of student satisfaction" (p. 36). The main aim of an ICC platform should therefore be to provide students with a real intercultural communication space to improve their ICC.

In China, Internet teaching platforms are still a new emerging teaching media. Many online platforms have been constructed by the government to reform the education system. This research is based on a multiform course mode consisting of two online platforms, one is the *Zhejiang Institutions of Higher Learning Online Open Course Sharing Platform* which contains various online courses. The other is an online intercultural exchange platform sponsored by the ministry of education in Japan, named the *International Virtual Exchange (IVE) project*. The two platforms are inseparably interconnected in the course mode of this research.

1.2. Main models of ICC

In cultivating students' ICC, studies on the constituent elements of ICC occupy an important position. For example, Deardorff (2006) has proposed the *Process Orientation* model to measure an individual's ICC. This model is divided into four dimensions, *Attitudes, Knowledge and Comprehension, Internal Outcome*, and *External Outcome*. The first thing to consider is *Attitudes*. Concretely, it contains three aspects, *Respect, Openness and Curiosity*, and *Discovery*. The embrace of these attitudes is critical for good intercultural communication. Once these attitudes have been acquired, an intercultural process can occur.

In 2003, Earley and Ang formed the CQ (cultural intelligence) theory with four dimensions, metacognitive, cognitive, motivational, and behavioral based on Sternberg and Detterman's (1986) framework. In that framework, Sternberg and Detterman (1986) collected varied opinions of CQ to complement the CQ theory on individual level: (1) metacognitive intelligence is how individuals acquire

information and obtain knowledge subconsciously; (2) cognitive intelligence is how knowledge structured individually; (3) the intelligence that motivates individuals to focus and learn is regarded as motivational intelligence; and (4) behavioral intelligence underlined individuals' capabilities to behave.

This study takes Earley and Ang's (2003) CQ Scale (CQS) as the measurement, who state that the above four dimensions are effective and functional under various cultural backgrounds and aims to do a comprehensive study of students' ICC learning processes and to determine if the new course mode helps them improve ICC.

2. Research methodology

2.1. Research questions

The fundamental objective of this research is to examine the effects of the online learning platform on students' ICC improvement using the CQS to examine any change. Hence this study is going to answer the following main questions:

- Is there any change in students' ICC if they participate in the new multiform course mode?
- Depending on the findings above, what are the characteristics of the changes?
- If there were any changes, what suggestions could be extracted to build future intercultural network learning platforms in China?

2.2. Research design

The study is based on students' participation in a multiform course mode. The mode is a combination of classroom teaching and two online learning platforms which allowed students to interact with others both domestically and internationally. It also included an interview task that was carried out from the course beginning to end. The two online platforms are the *Zhejiang Institutions* of Higher Learning Online Open Course Sharing Platform (Zhejiang Sharing Platform) and the *IVE project*.

For the quantitative research, the CQ survey instrument was used and given to both groups of 330 students before they started the intercultural communication course. As for the quantitative research, observation of how Group A of 150 students acted in the two platforms was needed. An analysis of each of their reflective reports on the course was carried out.

2.3. The different platforms

2.3.1. Zhejiang Sharing platform

Zhejiang Sharing Platform is an online platform launched by the government of Zhejiang Province, China. The platform consists of courses from a number of colleges and universities. For Group A students, in this platform they can access content from an *intercultural communication course* that adds to the classroom content. The advantage of this online course is the clear guidance for students: they can see the course outline, know the exact content of each unit and finish tasks and homework using their personal computer. There are a large number of books, audio, and video resources offered on this platform and students can also watch short video courses of their teacher.

2.3.2. The IVE project

To assist with the interview task, another online exchange platform, the *IVE project* was considered suitable for the new course mode. The *IVE project* was created by Eric Hagley and his team. It was created with assistance from a Japanese government Kaken grant. In the spring semester of 2017, students from Japan, China, and Columbia, in addition to a lesser number of students from the United Arab Emirates and Thailand, took part in the platform. It is like an open forum where students can socialize with each other under the supervision of

their teachers. The main aim of putting Group A students in this platform was to help them find a person from a different culture but with similar interests so they can build a relationship with each other and Group A students can launch their interview task better.

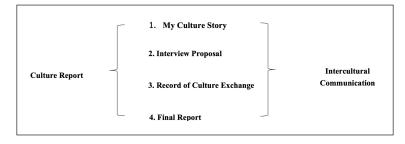
There were five sections in the platform that provided students a place to discuss the topics 'self-introduction', 'about my hometown', 'events in our lives', 'future plans', and one open forum. During the period of this research, the Chinese students were interacting with students from the other countries. Most of the students were just beginners of cultural learning, so the above simple topics could arouse their interest, making their integration into the platform easy and quick.

2.4. The intercultural interview

An important part of the study was the interview task that was assigned to Group A students to guide them toward building connections with the foreign students through the *IVE project*. It is a special interview task of this multiform course mode. At the beginning of the course, the task was assigned to Group A students (students who participated in the new mode) which acted as a guideline in their ICC learning. Each of them was asked to interview a person from a different culture (nation, country, social background). It was a long-term task that required students to submit their schedule and rate of progress at different learning phases during the whole semester.

The interview was divided into four parts: *My Culture Story, Interview Proposal, Record of Culture Exchange,* and *Final Report.* Figure 1 below is the clear steps of the interview. *My Culture Story* was the first step, which asked students to outline their basic cultural background including their basic information (name, gender, age, hometown, etc.) and many other aspects about their life. It is worth noting that the *intercultural communication course* is an optional course that students can choose based on their interests. Since the majority of the students are interested in cultural knowledge, the culture stories they wrote often had substantial content and expressed their basic understanding of culture.

Figure 1. Interview steps



Creation of the interview proposal was the second step of the interview task. In this part, students give a brief introduction about the interview they intend to do and the basic information of the interviewee. The basic format of the proposal is as follows (Table 1).

Table 1. The interview proposal

The interview proposal	
1) Information of the Interviewer:	(name, gender, age, religious belief,
2) Information of the Interviewee:	hometown, etc., language)
3) The way you found your partner:	(how you choose them from the platforms)
4) The reason you chose that partner:	(why are you interested in them, is it relevant to your interview theme? etc.)
5) Interview method:	(virtual exchange platform discussion, other chatting tools)
6) The theme of your interview:	(the main topic you designed to discuss)

Step 3 was the interview journal. In this part, students give some details about their current interviewee. On the platform they can freely discuss any topic they are interested in and can also expand on it using additional video chat or texts through other tools based on their needs, thus deepening communication. Both sides are able to express their thoughts sincerely over the period of communication. The students have some basic thoughts prepared for the interview and also participate in intercultural communication. In this step, teachers do not interfere in student communication unless students need some extra help to ensure they have an experience of intercultural communication.

Step 4 is the final report on the interview. In this part, students sum up the whole interview and give a conclusion about the topic they chose for discussion. They write about their experiences on the platform with screenshots and describe their individual feelings (such as culture shock, cultural exchanges, misunderstandings, and what they think were the most interesting cultural interactions). After hopefully acquiring some cultural knowledge and participating in the platform for one semester, they would have a variety of related ideas about cultural differences and possessing intercultural sensitivity which would help in doing the post-research.

Together, these four sections make up the whole interview task of the multiform course mode and it also serves as a necessary part to make students focus on the learning of cultural knowledge. The final cultural report they hand in at the end of the semester which contains the four sections also serves as the reflective journal of this study.

2.5. Research subjects

To show a clear comparison of ICC changes and/or a systematic learning of culture, this study observed two groups of students. Group A had 150 students in five classes that took part in this online learning platform and Group B had 180 students in six classes that did not participate in the project but rather learned in a traditional classroom.

Group A was taught by two teachers and Group B was taught by one teacher. All three teachers were from the same course group, in the same science and technology university in China. Before teachers started the *intercultural communication course* teaching, they had set teaching plans and had made the teaching program together. All of them are experienced teachers. There were not many differences in the classroom teaching aspects of the two groups. This study considers the variable as the new multiform course mode.

All students were non-English majors, sophomores, and junior students (Table 2). Both groups were selected randomly. The participants they communicated with on the platform were same-age students from Japan and Columbia who also participated in one of the platforms, the *IVE project*.

Students	Grade		Number	Gender		Major
	Sophomore	Junior		Male	Female	
Joined the project	128	22	150	60.7%	39.3%	Non-
Didn't join the project	171	19	180	66.7%	33.3%	English Majors

Table 2. Two groups of students

2.6. Research instrument and procedures

As mentioned above, this survey study is a combination of both quantitative and qualitative research approaches which uses a questionnaire and reflective journals to discover if the networked teaching and learning platform has an effect on the ICC of college students and the characteristics of any changes. Therefore, questionnaires and students' reflective journals are served as the instruments of this study. In addition, the students' interactions on the platform were also observed for qualitative reference.

2.6.1. Questionnaire

This study adopted Earley and Ang's (2003) CQS. They produced the self-testing scale to gauge changes brought about due to globalization as this needed to be examined. They discovered people's behavior and working performance were different under different cultural conditions, which could not be explained by *Emotional Intelligence* (Salovey & Mayer, 1990). CQ can be deemed as an individual's capability of information collection and processing in a different cultural background and take effective actions to adapt to the new environment. The CQS was produced to measure this.

As mentioned above, metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ, the four dimensions of CQs, work together to affect the

individual's level of CQ. In the CQS, there are 20 items corresponding to the four dimensions mentioned above. The questionnaire uses a Likert scale score, from one to seven, one indicating 'strongly disagree' and seven indicating 'strongly agree'. The subjects who take the survey report on themselves according to their actual situation. The original questionnaire of CQS can be found in Ang and Van Dyne (2008, p. 389).

As this research aimed to study the effectiveness of a multiform course mode on ICC where cultural interactions between students occurred through the Internet, the final questionnaire of CQS given to students had some minor modifications to suit the online nature of the study. It maintained the four dimensions but had a total of 21 items.

All 330 students were non-English majors. To ensure they could thoroughly understand the questionnaire and to keep the accuracy of the data, the questionnaire given to students was in English and Chinese. To prevent students falling into formulaic replies, the items were randomly disorganized. Table 3 is the English version of the questionnaire, and the bilingual version students received is in the supplementary materials.

To make it more salient and logical, Table 4 shows the final form of the CQS for this study and the corresponding numbers for items in the four dimensions.

CQ Factor	Corresponding Questionnaire Items			
cQ	MC1/Q6	I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.		
MC2 / Q11 MC3 / Q15		I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.		
		I am conscious of the cultural knowledge I apply to cross-cultural interactions.		
	MC4 / Q9	I check the accuracy of my cultural knowledge as I interact with people from different cultures.		

Table 3. Modified CQS

	COG1 / Q24	I know the education system of other cultures.
	COG2 / Q8	I know the rules (e.g. vocabulary, grammar, how to use language politely and appropriately) of other languages.
e CQ	COG3 / Q16	I know the cultural values and religious beliefs of other cultures.
Cognitive CQ	COG4 / Q10	I know the norms of dealing with interpersonal relationships (e.g. friendship, kinship) in different cultures.
	COG5 / Q17	I know the arts (e.g. music, painting, movies) of other cultures.
	COG6 / Q13	I know the rules for expressing nonverbal behaviors (e.g. smile, gesture) in other cultures.
	MOT1/Q14	I enjoy interacting with people from different cultures.
al CQ	MOT2 / Q4	I am confident that I can socialize with local people in a culture that is unfamiliar to me.
Motivational CQ	MOT3 / Q 18	I am sure I can deal with the stresses of adjusting to a culture that is new to me.
Motiv	MOT4 / Q20	I am sure I can deal with miscommunications and problems in intercultural interactions arising from cultural differences.
	BEH1/Q 19	I change my verbal behavior (e.g. accent, tone) when a cross-cultural interaction requires it.
	BEH2 / Q 22	I use pause and silence differently to suit different cross-cultural situations.
Behavioral CQ	BEH3 / Q21	I change my nonverbal behavior (e.g. facial expression, smile) when an intercultural situation requires it.
havior	BEH4/Q7	I vary the rate of my speaking when a cross-cultural situation requires it.
Bel	BEH5 / Q 23	I change my communication styles (e.g. direct vs. indirect) when an intercultural interaction requires it.
	BEH6 / Q12	I try to rephrase or explain when problems arise from intercultural communication.
	BEH7 / Q6	I use pictures, photos, and emoji to express myself when an intercultural situation requires it.

Table 4. Correspondence classification of four dimensions

Metacognitive CQ	Q6, Q11, Q15, Q9
Cognitive CQ	Q24, Q8, Q16, Q10, Q17, Q13
Motivational CQ	Q4, Q14, Q8, Q20
Behavioral CQ	Q19, Q22, Q21, Q7, Q23, Q12, Q6

2.6.2. Reflective journals

As already stated above, both groups of students were assigned with a cultural report task, which functioned as a reflective journal of the subjects. In the report, students recorded the process of intercultural communication and gave comments about themselves and how their thoughts have changed after the virtual exchange communication with people from different cultural backgrounds. The journals which reflect students' inner viewpoints were completed at the end of the course. Therefore, their journals were fresh and valid.

2.7. Data analytical approaches

Quantitative and qualitative statistics were collected to support the research with the process of data collection lasting from March to July, and through the spring semester of 2017 of the sample science and technology university.

2.7.1. Quantitative data collection

The CQS used for the research was given as a pre- and post-study. The prestudy wanted to ascertain if different groups' CQ was obvious in different levels. The same CQS questionnaire was used as the post-study which measured any changes. The post-survey was given to students in the last class of the course. Considerations of privacy and data authenticity of the self-test were taken into consideration. This survey was administered as an online questionnaire which students could do using their cell phone too. The pre- and post-study were both taken in the classroom. The pre- and post-study of Group A (150 students who participated in the online platform) had 139 and 144 valid questionnaires recovered. As for Group B, there were 166 and 132 valid questionnaires recovered from the pre- and post-surveys.

2.7.2. Qualitative data collection

For students who participated in the new multiform course mode, the final culture reports they wrote served as qualitative data in this research. There were

four sections to the journal, *My Culture Story, Interview Proposal, Record of Culture Exchanging*, and *Final Report*. The journal, being one task of the course, was taken seriously by students. A total of 149 journals were collected both in electronic form and printed form.

2.8. Data analysis

In this study, qualitative and quantitative research was conducted using different methods simultaneously with the adaptation of the four dimensions of the CQS. Both results are used in the discussion of the research.

2.8.1. Quantitative data analysis

Results from the surveys were exported and IBM SPSS 23.0 used as the analytic tool to compute the exact numerical value of mean, standard deviation, and Standard Error of Mean (SEM) of both groups' pre- and post-tests. As for independent samples, this study used Levene's test for equality of variances and the *t*-test for equality of means to examine the data dependency and differences between pre- and post-data.

2.8.2. Qualitative data analysis

As mentioned above, there are four dimensions on the CQS. Through analyzing any changes in CQ of the students who participated in the online learning platform, results on how the four dimensions of CQS are also shown in their reflective journals and summarize the characteristics of the changes. Further, some suggestions for the future construction of networked teaching and learning platforms is offered as well.

3. Results and discussions

Using the data collected and analysis results outlined above, this section now turns to the following aspects: (1) a contrast of the pre- and post-study outcome

of the two groups; (2) the characteristics of changes in Group A students; and (3) for college students in China, what constitutes an ideal online intercultural communication learning and teaching platform.

3.1. Changes between the groups

As stated above, this research included both pre- and post-studies to test the level of students' CQ before and after they participated in the intercultural communication course. Table 6-1 (in supplementary materials) shows the results of both students before they started the intercultural communication course.

Tables 6.1 and 6.2 (in supplementary materials) are the statistics of the pre-study of the two groups of students. From the column of 'Mean', the average score of each item is similar between the two groups. The column 'SIG (2-tailed)' showing results from the *t-test for equality of means*, shows the exact difference. If the *p*-value is less than 0.05, it illustrates that there are significant differences between the two groups' data, otherwise there are not. It is thus clear that p-values in the tables are greater than or equal to 0.05 (only Q11 equals 0.05, other items are greater than 0.05), which means there are no significant differences between the two groups. Before they started the *intercultural communication course*, the students of the two groups had nearly the same level of CQ.

The post-survey was conducted after both groups of students had finished their one-semester *intercultural communication course*. Group A students had also participated in the *IVE project* and interacted with foreign students through this online learning platform, while Group B students had not. The following data shows the results of the post-study. Tables 6-3 and 6-4 (in supplementary materials) note the statistics from the post-study for the two groups of students. In Table 6-3, the column 'Mean' shows great differences between the average scores. It is visible that Group A students who joined the *IVE project* have relatively higher average scores. The exact differences can be examined using the *t*-test for equality of means in Table 6-4, with column 'SIG (2-tailed)' giving the *p*-values (p<0.05). If the *p*-value is smaller than 0.05, it illustrates that there are great differences between the two groups' data, otherwise there are not. From

Table 6-4 (in supplementary materials), nearly all *p*-values of the items are less than 0.05 except Q24 which means, compared with the non-participating Group B, Group A had significant improvement.

3.2. Characteristics of the improvement

To make the comparison clearer, Table 5 below lists the average scores broken down into the four dimensions of both the pre- and post-tests of the two groups.

	Total (pre)	Total (post)
Group B	94.51	94.26
Group A	95.34	102.81
	Cognitive (pre)	Cognitive (post)
Group B	25.67	25.83
Group A	25.38	28.39
	Behavioral (pre)	Behavioral (post)
Group B	32.30	31.75
Group A	32.81	34.57
	Metacognitive (pre)	Metacognitive (post)
Group B	18.07	18.09
Group A	18.55	19.32
	Motivational (pre)	Motivational (post)
Group B	17.42	17.70
Group A	17.46	19.66

Table 5. Improvement of Group A students

Table 5 above shows an improvement in Group A students who participated in the online platform, and for Group B students, their total score basically had no change and there were few improvements in the cognitive, motivational, or behavioral CQ dimensions.

As displayed in Table 6-4 (in supplementary materials), the statistics of the poststudy showed the improvement of Group A students. In the following items: Q4, Q8, Q10, Q12, Q17, Q18, and Q23 (p<0.05) are approximately equal to zero, thus these six items could be considered as the items with the greatest degree of improvement. The *p*-values of Q13, Q14, Q19, Q20, Q22 were no higher than 0.02, which means the development in these items was relatively obvious. Since the following section is going to analyze the improvement of the four dimensions of CQS, Table 6 outlines the classifications of the above items and the corresponding numbers of the four dimensions of CQS.

	Most improved items		Relatively improved items	
Cognitive CQ	COG2	Q8	COG6	Q13
	COG4	Q10		
	COG5	Q17		
Motivational CQ	MOT2	Q4	MOT1	Q14
	MOT3	Q18	MOT4	Q20
Behavioral CQ	BEH6	Q12	BEH1	Q19
	BEH5	Q23	BEH2	Q22

Table 6. Improved items

The following sections analyze Group A students' improvement in ICC showing both the improved items and their cultural reports (reflective journals). As stated above, Group A and Group B students were all assigned the task of writing a *cultural report*. With regard to their cultural reports, as connections between Group A students and foreign students had been developed through the IVE project, they were able to finish the task carefully with details of interactions with their foreign partner. However Group B students were perfunctory with regard to their cultural report. For Group B students, they did not have a serious cultural interview with people from other cultures.

Since this study focuses on the improvements in students who participated in the online platform, the following section looks at details from Group A students' reports.

3.3. Improvement in metacognitive CQ

Metacognitive CQ refers to "an individual's cultural consciousness through cross-cultural interactions" (Ang & Van Dyne, 2008, p. 5). Flavell (1979) and Nelson (1996) consider metacognitive CQ as a high individual capability to

explore higher-level strategies in fresh cultural environments by deepening information recognition.

Those with higher levels of metacognitive ability CQ can more clearly know what knowledge to use when interacting with foreigners and it also helps them revise their communication strategies. It is a mental process that incorporates cultural knowledge, understanding, and acquirement thereof.

For both Groups A and B students who participated in the intercultural communication courses, the cultural knowledge they acquired has no doubt improved through learning from their teacher and books. But for students who took part in the online platform, the improvement is through actual practices. Therefore, as illustrated by the statistics above, compared with the non-participating Group B, Group A's level of CQ improved more in this area than in the other three dimensions.

3.4. Improvement in cognitive CQ

Cognitive CQ is the knowledge that is acquired from learning and practicing in different cultural backgrounds, it can be cultural norms, conventions, etc. (Ang & Van Dyne, 2008, p. 5). In simple terms, Cognitive CQ is the basic cultural knowledge that affects people's ideas and behaviors. As Ang and Van Dyne (2008) note, "cultural knowledge includes knowledge of oneself as embedded in the cultural context of the environment" (p. 5). For students, when they are in a 'real' environment, this ability can be improved more easily. The IVE project is such a platform. The most improved items of cognitive CQ are as follows (see Table 7).

Both Groups A and B students are non-English majors. For Group A students, on the online platform all students from the different countries used English as the lingua franca to communicate with each other. Many of them mentioned it was their first time to use English to communicate with a foreigner. To keep the communication going fluently, they needed to learn more rules of English.

Table 7. Improved items on cognitive CQ

	Q8	I know the rules (e.g., vocabulary, grammar, how to use language politely and appropriately) of other languages.	
Cognitive CQ	Q10	I know the norms of dealing with interpersonal relationships (e.g., friendship, kinship) in different cultures.	Most improved items
	Q17	I know the arts (e.g., music, painting, movies) of other cultures.	
	Q13	I know the rules for expressing nonverbal behaviors (e.g., smile, gesture) in other cultures.	Relatively improved item

Here are some words from their reflective journals (numbers are used to protect individual's anonymity):

"This course not only helped me improve my English, but also made me use English to communicate with a foreigner for the first time which has great significance to me. Communicating with a real English user is quite different from the usual exams and various English exercises" (150632290).

"This interview was my first cross-culture communication with a foreigner. I firstly found that to communicate with a foreigner is so interesting and wonderful" (15141511).

As for the improvement noted due to changes in response to Q10, after real interaction with foreign students, most students in Group A learned more basic norms of dealing with interpersonal relationships than they had known. The students they communicated with were the best samples for them to learn those norms.

"Japanese show great respect for seniority. The junior must use honorifics when speaking to the elders no matter in their families, schools or companies. But in China, we do not pay special attention to such typical honorifics" (15063314). "I think it is general in China and Japan to not talk too much about privacy things at the beginning of communication" (15081612).

Art was a common topic and nearly everyone talked about the music and movies of their own culture. There were a lot of students from Japan, so many Group A students started their communication talking about Japanese manga and anime.

"I have learned that in Japan, there is an art form called *Haiku* which is similar to ancient Chinese poetry" (15031325).

"I saw the official trailer of the Tokyo Olympic Games. At that time, I didn't know why so many comic and animation elements were put in it. But in fact, all aspects of Japan's social life and mental state are displayed in their anime. Different kinds of animation are created for all ages. Animation culture can be one of the symbols of Japan and it's an important point for us to know about Japan" (14051318).

Though not fluent in English, both sides of students communicated in a relaxed and happy manner.

"There were several times that we did not understand each other in words, but with a smile, the embarrassment seems to have been resolved. Even the most intelligent person can not learn all the languages of the world. However, this does not mean that we have lost opportunities for communication. We still have body gestures" (15031325).

"When we facetime with each other, there were many times that she folded her hands in front and said 'a li ga to u' (thank you) which made me feel she is so polite. But Yoko told me it is common in Japan" (15141511).

3.5. Improvement on motivational CQ

Motivational CQ is the intelligence that drives individuals to focus and learn under cultural interactions (Ang & Van Dyne, 2008, p. 5). Deci and Ryan (1985) consider students with high motivational CQ are those who have intrinsic interests and are active in cross-cultural situations (Table 8). Bandura (2002) also thinks such active students are also confident in intercultural communication.

Motivational CQ	Q4 Q18	I am confident that I can socialize with local people in a culture that is unfamiliar to me. I am sure I can deal with the stresses of	Most improved items
	Q14	adjusting to a culture that is new to me. I enjoy interacting with people from different cultures.	Relatively
	Q20	I am sure I can deal with miscommunications and problems in intercultural interactions arising from cultural differences.	improved items

Table 8. Improved items on motivational CQ

For Q4 and Q18, the average scores of Group A students was 4.39 and 4.47 respectively, but after the course, the score had reached 5.01 and 4.99. Group B students' scores of the two items improved from 4.30 and 4.40 to 4.43 and 4.52 respectively. From the statistics and journals of Group A students, this study shows that for Group A students, there is an obvious improvement in motivational CQ as shown by their answers to Q4 and Q18. This was derived from their real interactions with foreign students. Through the intercultural communication practice, they gained experiences about how to socialize with people from different cultural backgrounds, adjust to their habits, and learn from the new culture. As many of them made friends with the foreign students, it gave them the courage and confidence to have good communication problems but solved them well.

"Sometimes I could not understand what he wanted to express, and my English was not fluent. But the biggest harvest for me is I have learned the efficient way to communicate. I would pay attention to details to avoid cultural misunderstandings. Interacting with foreigners has changed me and my communication style which will be a great help in the future" (15063231).

"There were many language and cultural barriers in the conversation between Akiko and I, but we were communicating with our hearts. An affable will can easily conquer cultural difficulties" (15031325).

"Not until I participated in the platform did I learn that there are great differences due to 'cultural difference'. But luckily I also had the chance to learn how to deal with them through my own experiences" (15141537).

3.6. Improvement in behavioral CQ

The behavioral dimension refers to the level of how an individual adopts new verbal and nonverbal behaviors in a cross-cultural situation (see Table 9). "Behavioral CQ is a critical component of CQ, because verbal and nonverbal behaviors are the most salient features of social interactions" (Ang & Van Dyne, 2008, p. 7). As Hall (1959) underlined, nonverbal behaviors are even serious because they pass on meaning subtly as a 'silent language'.

	Q12	I try to rephrase or explain when problems arise from intercultural communication.	Most
Behavioral CQ	Q23	I change my communication styles (e.g. direct vs. indirect).	improved items
	Q19	I change my verbal behavior (e.g., accent, tone) when a cross- cultural interaction requires it.	Relatively improved
	Q22	I use pause and silence differently to suit different cross-cultural situations.	items

Table 9. Improved items on behavioral CQ

The above four items are very precise behaviors when communicating across cultures. For Group A students, through their intercultural communication, Q12, Q23, Q19, and Q22 are related to all the items mentioned in Table 6 and

Table 7 above. To maintain smooth communication, students have tried their best to understand their foreign friends and be understood. In this research, it was speculated that most students would merely communicate as necessary to complete the task. However, from the results, it is palpable that most of them have made friends and gained a lot from the communication and also indicates they have expressed themselves commendably.

"In our continuous communication, from typing to voice messages, we have improved the efficiency of communication. It not only improved our oral English, but also the ability to understand people from a different culture" (15141516).

"Because we are facing people from other nations and cultures, and they are different to us in ways of living, thinking and acting, cultural clashes are unavoidable. But we should try to change our fixed way of talking and thinking, to adapt to the new culture and understand others in order to communicate effectively" (15071105).

"The most important thing is not to use one's own communication mode and take so many things for granted. Both sides should try to understand each other through changing communication styles" (15031236).

4. Suggestions for future online ICC platform construction in China

As the statistics show, Group A students' showed improvements in aspects of cognitive CQ, motivational CQ, and behavioral CQ. This research attempted to find out if those improvements were due to students' participation in the online learning platform and whether it helped students improve their ICC. The online platform provides communication chances for students from different cultures and their improvement in the three dimensions is due to the real practice they were able to have therein. Therefore, in the future construction of network platforms to cultivate students' ICC, this study suggests teachers improve

and perfect the aspect of metacognitive CQ. In such online learning websites, sections of special cultural knowledge could be added with the starting point of stimulating students' participation. For instance, there could be different ICC tests and knowledge competitions which encourage students to learn more cultural knowledge.

Furthermore, in addition to the content of the online learning platform, the form of it could also have some improvement. Summing up from students' feedback, the construction of the online exchange platform's system could be improved in the following aspects: (1) instead of the IVE project's post and reply asynchronous mode, students prefer real time communication through the platform – for the online exchange platform, the convenience of communication should be of vital importance; and (2) for students from different cultural backgrounds, long-term communication could help them find more cultural phenomena and understand a different culture deeper. Maintaining students' follow-up communication is also an area to be considered in the construction of future online ICC cultivating platforms.

As a final addition, from the reflections in students' cultural reports, the multiform course mode also helps in the promotion of English communication ability. In the future construction of network learning platforms, sections such as "English corner" can be added for students to communicate orally in English.

5. Summary and implications

It is clearly visible from the statistics and students' pleasure reflected in their journals that the multiform ICC course mode is worth popularizing to cultivate students' ICC in China.

From the results of this study, we can see that students who have real interaction with people from another culture are more interested in intercultural communication. To cultivate students' ICC, real practice with people from another cultural background can arouse students' learning interest and make

course teaching more efficient. Many of the Group A students mentioned in their journals that the online platform made them communicate with foreigners for the first time. It is common for college students in China that only a few of them have the opportunity to communicate with people from other cultures. Therefore, it is particularly significant to establish more online platforms to create an intercultural context for them.

The formulation of a multiform course mode is an innovative method of education. From the extracts of students' journals above, it is obvious they have had a good learning experience using this multiform mode. Many researches have tried promoting ICC cultivation domestically and this multiform course mode integrates some of these previous studies in this field. From the research findings and students' feedback, this mode is worth making standard in educational settings where ICC should be included such as foreign language classes and other culture based classes.

6. Limitations of the present study and implications for future study

Through the current research, the effectiveness of online learning platforms on developing students' ICC has been shown and this mode of education is worthy of being advocated. However there are limitations in this research. As the teaching mode incorporates an online learning platform which is not popularized at the moment, the study is limited to the 330 non-English majors of a science and technology university. Thus this research is based on the statistics of the involved Chinese students only, but with no study of the ICC changes in the foreign students that they communicated with. For future studies, research could be carried out with students from different countries.

The focus of this study was on whether the online platform had helped students cultivate their ICC. Future studies could also examine students' communication processes and feedback reports to analyze many other questions such as how ethnography might be embodied in cross-cultural communication.

Lastly, for a more comprehensive understanding of the changes brought about by this multimode method, multiple effective procedures could be carried out rather than single measures. This research adopted a mixed methods approach that included questionnaires, online platform observations and students' reflective journals. For future studies, researchers could also use many other research techniques such as face-to-face interviews to make the research more detailed.

7. Supplementary materials

https://research-publishing.box.com/s/xiospc4byknu1j5gi04fpw7f2742adhm

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