Web-Based Videoconferencing in Investigation in TCFL: Taking Foreign International Students in China as an Example

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Abstract. Primarily motivated by the practical question of what kind of assessments should be adopted to evaluate Chinese language proficiency in the epidemic prevention and control stage, this study outlined a web-based videoconferencing DCT (Discourse Completion Task) as the measurement to test the pragmatic competence of foreign international students, who go to China to study Chinese. Through the ZOOM online platform, researchers form a VDCT to collect data from students. The task is designed based on politeness strategies when expressing disagreement in Chinese within the academic context. 33 foreign international students from different institutions are voluntary to join in the investigation. The results show that the web-based VDCT can better help researchers distinguish the stances and attitudes of the participants. This research provides a reference for teaching Chinese as a foreign language from the technical and application levels.

Keywords: DCT; TCFL; videoconferencing.

1. Introduction

As the Chinese mania continues to heat up, more and more foreign international students come to China to learn Chinese. On July 7, 2021, Foreign Ministry Spokesperson Wang Wenbin articulated that by the end of 2020, more than 180 countries and regions in the world have carried out Chinese language education, and more than 70 countries have incorporated Chinese into their national education systems. More than 20 million foreign people are learning Chinese worldwide, and the cumulative number of people learning and using Chinese is close to 200 million [1].

The level test for foreign international Chinese learners is called the HSK (Hanyu Shuiping Kaoshi, 汉语水平考试), which can provide the representation of language proficiency.

Although the oral test of HSK had been put into practice since January of 2023, there is a need to find a practical methodology for classroom quizzes or unit tests, orally and written.

DCT (Discourse Completion Task) or usually WDCT (Written DCT) are conventional tools to test language acquisition, especially in the test of pragmatic competence. What this tool shares in common with other tools is to create scenarios for learners to prepare reactive discourse accordingly, then the discourse will be collected and analyzed by the teacher to illustrate the pragmatic competence of language learners.

Traditional (W)DCT has the advantage of great efficiency in collecting discourses, but in the context of the epidemic, teachers and students are difficult to meet in many cases. DCT questionnaire has been used in VR classrooms [2], then few researchers mentioned its adaption in videoconferencing platforms. Therefore, principally impelled by the practical pedagogical question of what kind of methodology of assessment should be adopted to evaluate the pragmatic competence of foreign international students besides HSK during a pandemic or quarantine, the study creates a new method, VDCT (Videoconferencing Discourse Completion Task), to answer the research question:

RQ: How does web-based videoconferencing facilitate DCT tests?

2. Literature review

2.1 Videoconferencing

As a synchronous platform of collaboration with instant feedback, Videoconferencing enables two or more groups of people to communicate in real-time from different physical locations, supporting the communication of interactive voice, video, and data, avoiding the lower level of interaction and engagement caused by delayed feedback in asynchronous communication [3, 4].

Its significance has got a chance to be explored, thanks to the development of multimedia technology, the popularization of remote classrooms, the decline in the cost of equipment and the outbreak of worldwide COVID-19. The advantages of videoconferencing, such as the reduction of time and costs between remote locations, the gaps filling in teaching services, and the increment of training productivity, enable meetings that would not be possible due to prohibitive travel costs be held and improves access to learning [5, 6]. Moreover, due to the multimedia capabilities of web-based videoconferencing technology, ambiguity caused by text-only communication reduces and psychological engagement enhances [7].

Videoconferencing as a tool for collecting data has already been considered a feasible and acceptable platform, especially with potential usefulness in certain contributions to the collection of interview data [5]. Take one of the online platforms, Zoom, as an example. Between February and April 2020, and in terms of number of users, Zoom had 300 million daily meeting participants [8]. A key advantage of Zoom is its ability to securely record and store sessions without recourse to third-party software.

How the instructional experience is reflected in our lives is in part a production of the approach we engaged to learn through cyber technology, and in turn, of course, videoconferencing can shape our understanding of embodiment and interaction in social

activities as the information and insights we find behind the screen help us to construct our world in new ways [9].

2.2 (W)DCT

(W)DCT is one of the most efficient tools for collecting discursive data in language investigation.

During the DCT test, a questionnaire will be designed as several separate scenarios for participants to give a reactive discourse. This data-collecting process can be phased within a short period when researchers are doing oral DCT face-to-face with each participant or can be finished after a while after the researcher's handing out WDCT to all the participants. In a word, (W)DCT is helpful and effective in the data collection of language tests.

Just take the investigation of disagreement as an example, most scholars have adopted DCT as their tool [10-17].

In this study, VDCT is a perfect solution to reach participants when they are grounded during quarantine or dispersed because of the scale of multi-institutional research, particularly, when the study focuses on the reactive discourse of disagreement.

2.3 TCFL

Among the research on TCFL, almost all the aspects related to pedagogy have been studied. However, merely the studies on classroom teaching Chinese [18-20], the concerns about teaching materials [21, 22] and strategies on vocabulary acquisition [23, 24] do provide insights that it is necessary to face the crucial situation of TCFL, which has to be combined with M-learning or U-learning.

Hence, they apply computer science, APPs, and web-based tools to facilitate students' learning. Guo [25] adopts Hellotalk as an extracurricular learning tool and has got very good implementation. Jiang [26] analyzes the practical value of the ZOOM platform in Chinese and foreign educational institutions at home and abroad or Confucius institutes. Tseng and Geng [27] discuss the effectiveness of Virtual Reality in TCFL. Tang [28] has empirical research on TCFL teaching with the assistance of new media technology under the new crown epidemic. Scholars try to explore a new route to cultivate TCFL during the epidemic isolation period.

Unfortunately, the dilemma between classroom and online teaching can not be solved easily. When students enjoy remote learning with the assistance of technology or online platform, their learning experience with real-time tests would be reduced. Teachers can not administer the learning process effectively, adjust their teaching plan according to the student's reactions and students cannot get immediate feedback. Scholars try to get insights from assessments, which do help to cultivate students' Morphology learning [29], independent learning [30], or vocabulary output.

Therefore, VDCT has to be created to give tests to students to offer a positive backwash effect to classroom teaching and remote learning.

3. Methodology

This study is multi-institutional research. Foreign international students from Jilin International Studies University, Hainan University, Hebei Normal University, and Guangxi Normal University are invited to fill out the DCT questionnaire through online platforms orally, as well as the written form through Questionnaire Star (wenjuanxin). There are 200 students get invited as participants. However, because of the floor effect, most of them quit. It seems that foreign international students are not that confident about their language competence.

The tool used to collect data is called VDCT, which is a newly synthesized tool for language assessment during the pandemic. It sets up scenarios for students to give reactive answers accordingly when disagreements are required in academic contexts.

This set of VDCT, which was composed based on the WDCT of Blum-Kulka and Olshtain [31] and Guodong and Jing [32], contains 8 scenarios in the academic context. Foreign international students would have to give reactive discourse according to the scenarios and the characters involved. Details of the VDCT have been listed in Table 1. The tasks in the VDCT have been illustrated in Chinese with English annotations. The coders analyze their discourse and decide their language competence according to what politeness strategies they have adopted.

Table 1. The Detailed Information on Scenarios of the VDCT

	Character	Social status	Social distance
Scenario A	lecturer	high	distant
Scenario B	supervisor	high	distant
Scenario C	instructor	high	close
Scenario D	schoolfellow	equal	distant
Scenario E	friend	equal	close
Scenario F	classmates	equal	close
Scenario G	student	low	distant
Scenario H	colleague	low	close

The interview has also been adopted as a qualitative method to triangulate the research questions. At the end of the questionnaire of Questionnaire Star, the researchers asked the students to give comments and join in the interview. 8 students responded and showed their willingness to further contact. The interview is held through ZOOM two weeks after the questionnaire.

4. Data analysis

4.1 Detailed Information of the Participants

Among the 33 foreign international students, there are 15 males, 17 females and 1 other gender. A majority of them study Tourism related majors, which can be illustrated through the following word cloud. See fig. 1.

Fig. 1. The Word Cloud of the Participants' Majors

22 out of 33 foreign international students have been learning Chinese for more than 2 years and 9 of them have learned for 1 or 2 years (Figure 2). 93.94% of the participants have more than one year of Chinese learning experience, which has been confirmed through interviews. Although all the participants, who have taken part in the interview, stated that they are glad to join the research, they complained about the difficulty of the VDCT questionnaire.
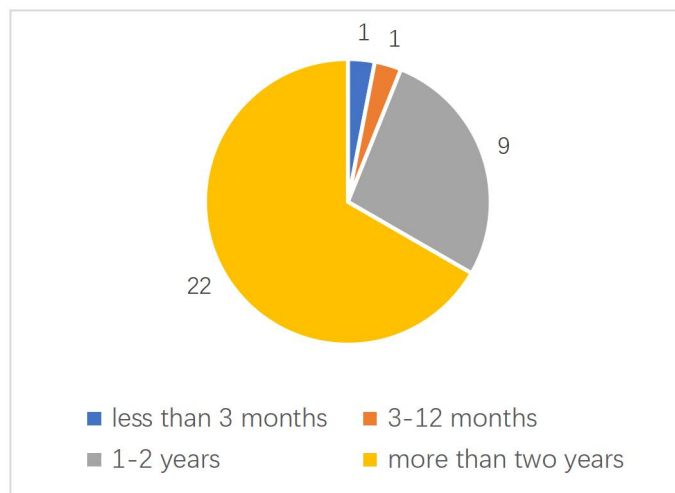

Fig. 2. The Learning Experience of the Participants

The VDCT questionnaire helps to collect foreign international students' reactive discourse when expressing disagreement. Teachers, who teach TCFL (Teaching Chinese as a Foreign Language), can mark students' progress through the coding of the politeness strategies adopted by every single student. The distribution of the specific adoption of politeness strategies, which can also be a rubric for students' language proficiency, will be listed in the next section.

4.2 Data Analysis

The data has been collected, transcribed and coded carefully to guarantee the success of research. The digital data, including the VDCT and the interview through ZOOM, has been recorded, and coded with the help of ATLAS.ti 22. And the questionnaire collected through Questionnaire Star has been exported to Excel and coded manually. The three coders are from different Chinese universities. They do the coding respectively first and discuss the final version of the coding through ZOOM. The coding results of the VDCT among 3 researchers have been imported to SPSS 23 to have the Kappa test. The result of the Kappa test has been showed in the following Table 2.

Table 2. The Values of the Fleiss Kappa

scenario	A	B	C	D	E	F	G	H
Fleiss Kappa	0.829	0.627	0.889	0.462	0.410	0.313	0.656	0.487

Fleiss Kappa<0.2 indicates low consistency; 0.2~0.4 indicates moderate consistency; 0.4~0.6 indicates a high degree of consistency; 0.8~1.0 indicates an extremely high consistency.

Among all the coding, 1 out of 8 has moderate consistency, and others all have high or extremely high consistency.

4.3 The Significance of Videoconferencing in Coding

In the process of coding, sometimes, the researchers cannot decide which politeness strategy has been used according to the written version of DCT. So, the video of VDCT helps them to make the decision.

For example, in scenario D. The analysis of the written discourse will just provide the literal meaning which sounds quite like the positive politeness strategy, however, if we take the student's rolling his eyes and ironic tone into consideration, the code will become the politeness strategy of do the FTAs bald on record. The detailed information has been listed in Table 3. Analyzing the sentence from the literal perspective, it is academic communication between students to explore the truth. But the explanation associated with body language and intonation will make it have implied meaning, for example, "Do you think so? Why don't I believe it? The description I heard about this course is positive, while the description you heard is negative. If you don't explain it clearly, you must be slandering this course!" In these two situations, the results of coding based on politeness strategies will be completely different.

Table 3. The Demonstration of Student 10's Reactive Discourse in Scenario D

Scenario D	你在参加汉语角时，提到下学期想选的课程。在座的某位你不认识的人，说，"哎呀！我知道那门课，又难学又枯燥。谁	At Chinese Corner, you mention that you are thinking of taking a certain course the next semester. Someone unfamiliar says, "Ah, I've heard of that course. It's difficult and boring.

	建议你选，你都不要选。"但是，你的老师告诉过你，这门课有挑战又很有趣，并且你很相信你老师的评价。为了让同学们破除对这门课的误解，你会发表不同意见，说：	Whoever suggests you, deny!" However, you have learned from a lecturer that the course is very challenging and interesting, and you believe in your teacher. To clear the misunderstanding on this course, you will disagree with her/him: "................"
Disagreement	"是吗？我听说这门课有挑战又很有趣，为什么你觉得又难学又鼓噪呢，可以分享一下吗？"	"Really? I heard that this course is challenging and interesting. Why do you think it's difficult and noisy? Can you share it?"

Another example is provided by another female student in the same scenario (see Table 4). When the student's reaction is *I still want to see and express my opinion on this course*. There are also two kinds of meanings of this sentence. One is, "But I won't listen to your suggestions. I just want to see what this course is like", and the other is, "(I respect your suggestions, however,) I still want to see whether this course is difficult or not.". When coding according to politeness strategies, the first way of understanding will become the politeness strategy of doing the FTAs on record, and the second way is negative politeness. Hence, the assistance of VDCT is crucial to the research. After all the coders have seen her sincere eyes and the calm voice in the video of VDCT, they can predict that this student accurately has chosen a negative politeness strategy.

Table 4. The Demonstration of Student 5's Reactive Discourse in Scenario D

Disagreement	"我仍然想去看看并对这门课程发表自己的看法"。	"I still want to see and express my opinion on this course".

In some cases, the expressions in one's eyes help the coders to make decisions. In scenario E, when student 22 was about to present her answer, she gives a confident stare to the camera which indicates her firm belief in her Chinese proficiency. If the coders just code from the written version of the DCT questionnaire, two possible answers will be concluded "Why do you say my Chinese is not good? I am better than you. And I am sure my Chinese is very good." or "why do you say my Chinese is not good? Can you tell me? Because I think my Chinese is good." Owning to this student's long-lasting gaze and disdainful facial expression, all the coders agree to code as do the FTAs on record. The question in scenario E has been listed in Table 5.

Table 5 The Demonstration of Student 22's Reactive Discourse in Scenario E

Scenario E	你的朋友认为你的汉语发音不够标准，他/她说："你的汉语，一听就是老外说的，我觉得你平时都没有练习。"但是你经常被路人夸奖汉语讲的很好，也经常去汉语角练习。为了给自己辩解，你会发表不同观点，说：	One of your close friends makes the following comment on your Chinese pronunciation, "Ah, your Chinese is exotic. I guess you lack practice". However, Chinese passers-by will always praise your standard Chinese and you do often go to Chinese Corner to practice. To defend yourself, in response, you will make disagreements as, "................"

| Disagreement | "为什么说我不好？ 我中文很好" | "Why do you say my Chinese is not good? My Chinese is good." |

5. Discussion

5.1 Discussion

The research question has been answered. The synthesis of videoconferencing and DCT not only avoid social phobia in interaction but bridge the communication between researchers and students during the pandemic. With the help of VDCT, the data was collected more accurately. VDCT do facilitate analysis when coders can take participants' facial expressions, eyes, body language, and intonations into consideration.

5.2 Limitation

To be frank, it is a pity that the design of the DCT questionnaire doesn't include gender differences, which will bring more possibilities and problems in composing, collecting and analyzing the questionnaire.

6. Conclusion

This study is multi-institutional research, talking about the implementation and advantages of videoconferencing in classroom assessment. The participants include 33 foreign international students studying Chinese in China. The results show that videoconferencing as a synchronous platform does better facilitate teachers in the course of TCFL to understand students' pragmatic proficiency.

References

[1] Xinhua. *Over 70 countries have Chinese language in their curriculums: official*. 2020; Available from: http://www.xinhuanet.com/english/2020-12/14/c_139589148.htm.

[2] Taguchi, N., *Dispreferred speech acts in virtual reality: Analysis of tone choices and hesitations.* System, 2022. **106**: p. 102793.

[3] Gough, M., *Video conferencing over IP: Configure, secure, and troubleshoot.* 2006: Elsevier.

[4] Wiesemes, R. and R. Wang. *Video conferencing for opening classroom doors in initial teacher education: Sociocultural processes of mimicking and improvisation.* in *Seminar. net.* 2010.

[5] Archibald, M.M., et al., *Using zoom videoconferencing for qualitative data collection: perceptions and experiences of researchers and participants.* International journal of qualitative methods, 2019. **18**: p. 1609406919874596.

[6] Doggett, D. and A. Mark, *The videoconferencing classroom: What do students think?* Journal of industrial teacher education, 2008. **44**(4): p. 29.

[7] Kock, N., *Media richness or media naturalness? The evolution of our biological communication apparatus and its influence on our behavior toward e-communication tools.* IEEE transactions on professional communication, 2005. **48**(2): p. 117-130.

[8] Warren, T., *Zoom grows to 300 million meeting participants despite security backlash*, in *The Verge.* 2020.

[9] Chew, Y.W., *Performing Presence with the Teaching-Body via Videoconferencing: A Postdigital Study of the Teacher's Face and Voice.* Postdigital Science and Education, 2022. **4**(2): p. 394-421.

[10] Yan, C., *A contrastive pragmatic study of politeness strategies in disagreement between native speakers of English and Chinese EFL learners.* Chinese Journal of Applied Linguistics, 2016. **39**(2): p. 231-248.

[11] Sharqawi, M.A. and E.M. Anthony, *Analyzing the speech act of disagreement produced by Iraqi EFL learners: A gender study.* Humanities & Social Sciences Reviews, 2019. **7**(2): p. 118-134.

[12] Bavarsad, S.S., A. Eslami-Rasekh, and S. Simin, *The study of disagreement strategies to suggestions used by Iranian male and female learners.* International Letters of Social and Humanistic Sciences, 2015. **49**: p. 30-42.

[13] Khomeijanifarahani, A. and A. Molkizadeh, *An investigation of Iranian advanced EFL learner's application of politeness strategies in disagreement between two genders.* International Research of Applied and Basic Science, 2013. **5**(5): p. 628-633.

[14] Li, F., et al., *Is mandarin chinese a truth-based language? Rejecting responses to negative assertions and questions.* Frontiers in Psychology, 2016. **7**(DEC).

[15] García-Fuentes, C. and K. McDonough, *The effect of explicit instruction and task repetition on Colombian EFL students' use of politeness strategies during disagreements.* Language Learning Journal, 2018. **46**(4): p. 470-482.

[16] Hamdan, H.J. and R.S. Mahadin, *Disagreement realizations in Arabic evidence from the University of Jordan.* Pragmatics and Society, 2021. **12**(3): p. 349-372.

[17] Benyakoub, N.E.H., et al., *A cross-cultural analysis of disagreement strategies in Algerian and Jordanian Arabic.* Kervan, 2022. **26**(1): p. 253-275.

[18] He, W.W., *Innovative excellence: A case study of a Chinese Language Flagship Program*, in *Frontiers of L2 Chinese Language Education: A Global Perspective.* 2021. p. 8-29.

[19] Wu, J., *Construction of College Chinese Writing Practice Teaching Platform under the Background of Information Technology.* Mobile Information Systems, 2022. **2022**.

[20] Zajdler, E., *Speech shadowing as a teaching technique in the CFL classroom.* Lingua Posnaniensis, 2020. **62**(1): p. 77-88.

[21] Ji, Q., *Readability Evaluation of Books in Chinese as a Foreign Language Using the Machine Learning Algorithm.* Mobile Information Systems, 2022. **2022**.

[22] Han, Y., et al., *ARSCC: An Assisted Reading System for Contemporary Chinese Based on Multi-aspect Analysis*, in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).* 2021. p. 631-639.

[23] Tu, A. and D. Qian, *The Classification of Korean Verbs and Its Application in TCFL*, in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).* 2020. p. 292-299.

[24] Zeng, J. and Y. Yuan, *A Study on the Counter-expectation and Semantic Construal: Strategy of Implicit Negative Adverbs*, in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).* 2018. p. 17-26.

[25] Guo. *Analysis of M-learning application in Chinese Learning: Take hellotalk as an example.* in *Proceedings - 2021 3rd International Conference on Internet Technology and Educational Informization, ITEI 2021.* 2021.

[26] Jiang. *Application of Modern Educational Technology in Teaching Chinese as a Foreign Language: take mobile phone software Zoom platform as an example.* in *Proceedings - 2021 3rd International Conference on Internet Technology and Educational Informization, ITEI 2021.* 2021.

[27] Tseng, M.F. and Z. Geng, *Implementing Virtual Reality–Enhanced Tasks in Chinese Language Teaching*, in *Chinese Language Learning Sciences.* 2021. p. 91-118.

[28] Tang. *A Brief Analysis on Teaching Chinese as a Foreign Language with the Assistance of New Media Technology under the New Crown Epidemic.* in *Proceedings - 2021 3rd International Conference on Internet Technology and Educational Informization, ITEI 2021.* 2021.

[29] Xiao, *Teaching Morphophonetic Characters in Teaching Chinese as a Foreign Language Based on Internet of Things Assistance.* Wireless Communications and Mobile Computing, 2022. **2022**.

[30] Xiaoqi, F., et al. *Representation of aR Training Model for Teaching Chinese as a Foreign Language under the Teaching Innovation Model.* in *ACM International Conference Proceeding Series.* 2020.

[31] Blum-Kulka, S. and E. Olshtain, *Requests and apologies: A cross-cultural study of speech act realization patterns (CCSARP).* Applied linguistics, 1984. **5**(3): p. 196-213.

[32] Guodong, L. and H. Jing, *A Contrastive Study on Disagreement Strategies for Politeness between American English & Mandarin Chinese.* 2005.