Research on Chinese Teachers and College Students' TOEFL/IELTS English-Speaking Practice in the Post-Pandemic Era

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Abstract—**In the post-pandemic era, the training of spoken English is transforming from traditional offline lectures to the blending of online and offline teaching. This study aims to guide Chinese students' TOEFL/IELTS speaking performances by investigating the relevant factors around in-class teaching and apps using that influence students' learning efficacy. The findings of this research indicate that teachers' digital literacy and native English-speaking abilities are highly needed to support the blending of online and offline teaching modes in the post-pandemic era. Apps are expected to maintain and improve basic functions like memorizing vocabulary and use short and simple forms to save users' time. Apps can also offer strategies to instruct users' schedules, so students would avoid their loss of self in face of various functions and have a better immersive experience of practicing speaking English on apps. These results can be considered to improve teaching methods and app functions and support further research on improving Chinese students' language scores in the post-pandemic era.**

Keywords—**digital teaching, English-learning apps, TOEFL, IELTS**

I. INTRODUCTION

Recent years have witnessed the increasing requirement for studying abroad, which gives rise to heated registrations for language examinations. A prominent problem is exposed in this phenomenon – Chinese students are situated at a lower position in Test of English as a Foreign Language (TOEFL) and The International English Language Testing System (IELTS) than the average global level, especially in the speaking part [1]. Chinese students' willingness to go abroad for further study grows high, and they are eager for improvement in pedagogy to remove this language barrier. Because the public speaking lesson in colleges and universities is a simulation of the TOEFL/IELTS speaking section [2], training students' presentation skills are beneficial to improving their TOEFL/IELTS speaking scores. However, domestic TOEFL/IELTS training tends to be utilitarian with a monotonous emphasis on test-relevant skills rather than corresponding performance for

targeted interactive situations [3, 4]. As a result, many students speak superficially by summarizing the material, as they could not compose logical structure to have consistent expressions [5].

Chinese students used to practice with teachers face-to-face in offline courses to improve their speaking skills and prepare for TOEFL/IELTS. However, COVID-19 made in-person teaching and practicing inconvenient, as people seek to communicate online to avoid the spread of virus. In the post-pandemic era, technologies and Internet help people to contact remotely, and people get used to learn with some digital implements. This study is expected to evaluate Chinese teachers and college students' TOEFL/IELTS English-speaking practice in the post-pandemic era, and propose possible suggestions to help it improve.

A. Digital Teaching in Classrooms

New technologies and innovative teaching methods activate the teaching environment in public speaking classes, providing more strategies for preparing for TOEFL/IELTS speaking tasks during the post-pandemic era and proposing a higher standard for teachers. The flipping classroom is to convert the traditional teaching-listening mode by encouraging students' performance and interactions in class, and students benefit from gaining practical experience [6]. The interactive classroom provides students with a vivid simulation of linguistic situations, which is also influenced by teachers' discipline and competence. Today's digital age requires teachers' adaptation to technological teaching, where they get familiar with the new equipment, optimize their teaching methods, and seek innovative moves [7]. In addition, students' willingness to speak English during class is influenced by whether the teacher is a native English speaker [8]. If the teacher is a native speaker, students intend to speak English, which gives them more chances to practice. Native-speaking teachers have another advantage – their chronic sentence patterns and word choices are closer to natural English interactive situations. Wang and Zhang [9] found that syntax is affected by whether they are native English speakers more than whether they are EFL (English as a Foreign Language) novices or senior speakers.

B. Abundant Smart Phone Apps

Teachers' guidance provides an improvement in class, while various new media like English learning apps provides abundant resources for students to learn English after class. English short video clips, video dubbing apps, and spelling apps are interesting new media platforms that enrich English learners' spare time [10, 11]. Learning assignments on these apps can be very small, which allows students to take advantage of fragmented time [10]. However, the higher degree of freedom leads to the lack of supervision of teachers. Speaking is an accumulating process, so students' self-efficacy in learning decides to what extent they can make use of the rich resources on apps [12]. English learning apps are fundamentally designed to customize students' needs of practicing English after class. On HelloTalk, students can encounter English speakers from other countries and communicate with them [10], but Chinese students prefer to stay in in-group communication with Asians to avoid challenges and embarrassment [13]. Various apps and other new media platforms appear to enrich traditional teaching and learning modes, but students face the problem of losing themselves [10]. If students are overloaded with too much information, English learning apps would lose their essence.

On the one hand, the implementation of technologies asks for the improvement in English teachers' digital quality; on the other hand, students' self-efficacy is highly demanded in face of various emerging apps. This study aims to guide on improving Chinese students' TOEFL/IELTS oral speaking performances by investigating the influential factors around in-class teaching and apps using that influence students' learning efficacy. This research is designed to answer the following two questions: (1) What should teachers do to establish an interactive environment in an English-speaking class with the help of new technologies? (2) What can English learning apps be modified to better satisfy students' needs?

II. METHODOLOGY

The data were collected through an online questionnaire on Wenjuanxing among Chinese college students who have learned and practiced the English-speaking part to prepare for TOEFL/IELTS. This research uses quantitative research methods because it can gain and analyze a large amount of data in a short time. A quantitative questionnaire was distributed by snowball sampling. They were first sent to students from International College Beijing, China Agricultural University, where most students have to take TOEFL/IELTS to apply graduate school abroad. Students who have filled in the questionnaire invited other college students that are preparing for or have taken TOEFL/IELTS.

The questionnaire is divided into three parts. The first section asks for the respondents' genders, ages, and TOEFL/IELTS scores (if they have). The second section is about respondents' evaluations of teaching methods in the classroom, including teachers' capability of using new technologies and equipment, native/EFL English-speaking teachers' classroom performances, and teachers' arrangement of in-class activities. The last section is designed with questions like the overall evaluation of the existing spoken English practice apps, feedback on various functions in apps, and the efficiency of apps to investigate students' self-practicing status quo. Items in the last two sections were rated on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

The collecting process lasted for 5 days, from April 21st to 25th in 2022, and received 207 questionnaires on Wenjuanxing platform. The total number of valid questionnaires is 204 ($n = 140$, 68.63% female students, $n = 64$, 31.37% male students). The data is abundant with good reliability and validity ($n = 204$, Cronbach's $\alpha = 0.886$, KMO = 0.884).

III. RESULTS AND DATA ANALYSIS

A. Reliability and Validity

The data in this research is analyzed on SPSS 16.0. As shown in Table I, Cronbach's α is 0.886, above 0.7, so this study has good reliability. According to Table II, the significance level is lower than 0.001, so the results show good validity.

TABLE I. RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
0.886	17

TABLE II. VALIDITY STATISTICS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.884
Bartlett's Test of Sphericity	Approx. Chi-Square	1420.283
	df	136.000
	Sig.	0.000

The results can be structured into the model below (Fig. 1). To investigate Chinese students' spoken English learning and practicing, the research is divided into two aspects, teachers' in-class teaching and students' self-practicing on apps. Teachers' in-class teaching includes two factors, teachers' native English abilities, and teachers' digital capability, while students' self-practicing on apps is evaluated on the efficacy of the existing English-learning apps.
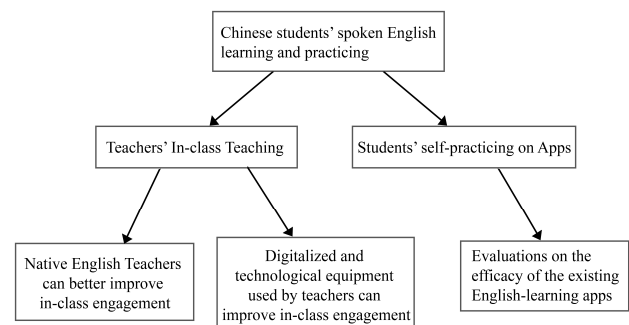

Figure 1. Structure of the questionnaire.

This study uses path analysis to conduct a model on teachers' in-class teaching (Fig. 2 & Table III) and a model on students' self-practicing on apps (Fig. 3 & Table IV).

B. Teachers' In-class Teaching

Two sets of teachers' effectiveness criteria, native English-speaking abilities, and digital capability are measured in the research by evaluating which kinds of in-class activities contribute to the need for these two factors.
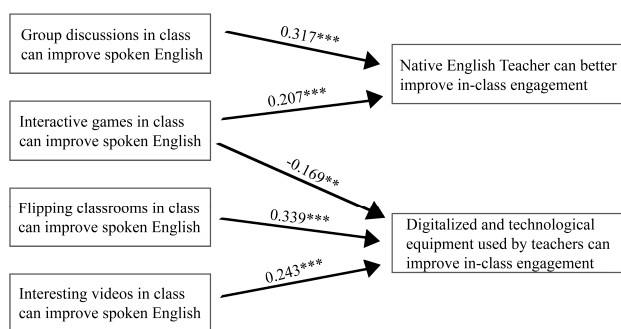

Figure 2. Path analysis model for teachers' in-class teaching.

Fig. 2 is the model designed with the first part of the findings. The results of path analysis show that Model 1 has a good fit to the data ($\chi2/df$ = 0.796, p = 0.528; CFI = 1.002, RMSEA = 0.000, RMR = 0.029). This model illustrates the causal relationships between types of in-class activities and students' demand for teachers' native English-speaking abilities, and between the types of in-class activities and teachers' digital capability.

As shown in Table III, each variable x has a significant causal relationship with its y. Group discussions and interactive games are two independent variables that significantly improve native teachers' teaching effects in English-speaking classes (p < 0.01). Flipping classrooms and interesting videos significantly contribute to the in-class engagement supported by teachers' management of digitalized and technological equipment (p < 0.01). However, interactive games also lead to teachers' worse in-class effects with digitalized and technological equipment at a 1% significant level.

In Table III, group discussions and interactive games require fluent expressions in English and an ordered arrangement in class, so native English-speaking teachers' strength in English is magnified in these two kinds of activities. Native English teachers are encouraged to arrange abundant in-class activities to help students learn and practice speaking English.

Flipping classrooms and playing interesting videos lead to a better learning phenomenon in class for teachers who are capable of using digitalized and technological equipment. The flipping classrooms and the videos both rely on digital devices, so teachers' digital capability is a bonus quality in motivating students to perform better in class.

Table III also shows that interactive games' influences on spoken English have a negative correlation with the digitalized and technological equipment used by teachers to improve in-class engagement. Interactive games emphasize a co-constructive learning process, but the reliance on digital devices deprives the fun of interpersonal communication and learning.

C. Students' Self-Practicing on Apps

The second part of the findings evaluates the efficacy of the existing English-learning apps by showing which functions and properties contribute to students' satisfaction with these apps. Based on the research results, model 2, as is shown in Fig. 3 above, is designed to visualize the causal relationships between the affordance of apps and their effects on students' spoken English practices. Model 2 has an adequate fit to the data ($\chi2/df$ = 1.369, p = 0.250; CFI = 0.998, RMSEA = 0.043, RMR = 0.019).

TABLE III. PATH ANALYSIS FOR TEACHERS' IN-CLASS TEACHING

Independent Variables X	→	Dependent Variables Y	Unstandardized Coefficients	Standardized Coefficients	S.E.	C.R.	P
Group discussions in class can improve spoken English	→	Native English Teachers can better improve in-class engagement	0.278	0.317	0.062	4.464	0.000***
Interactive games in class can improve spoken English	→	Native English Teachers can better improve in-class engagement	0.214	0.207	0.073	2.914	0.004***
Flipping classrooms in class can improve spoken English	→	Digitalized and technological equipment used by teachers can improve in-class engagement	0.351	0.339	0.075	4.704	0.000***
Interesting videos in class can improve spoken English	→	Digitalized and technological equipment used by teachers can improve in-class engagement	0.224	0.243	0.074	3.021	0.003***
Interactive games in class can improve spoken English	→	Digitalized and technological equipment used by teachers can improve in-class engagement	−0.172	−0.169	0.085	−2.028	0.043**

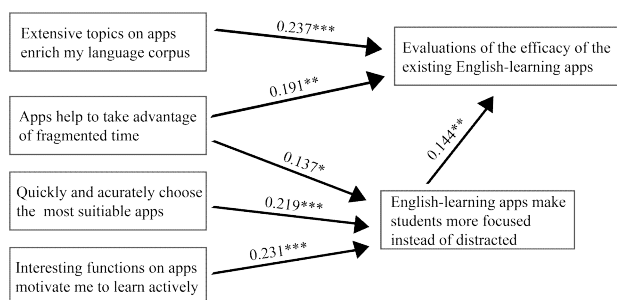Note: *p < 0.05. **p < 0.01. ***p < 0.001

Figure 3. Path analysis model for students' self-practicing on apps.

Table IV illustrates the significant causal relationship between each variable *x* and variable *y*. Interesting

functions of apps, such as learning motivations and the ability to quickly and accurately choose the most suitable apps significantly help students be more focused when using English-learning apps ($p < 0.01$). When apps help students take advantage of fragmented time, this function also improves students' concentration on learning spoken English ($p < 0.1$). Moreover, using fragmented time and making students more focused causes a higher learning efficacy of apps ($p < 0.05$). In addition, the extensive topics on apps to enrich language corpus also significantly lead to a better evaluation of the existing apps ($p < 0.01$).

TABLE IV. PATH ANALYSIS FOR STUDENTS' SELF-PRACTICING ON APPS

Independent Variable X	→	Dependent Variable Y	Unstandardized Coefficients	Standardized Coefficients	S.E.	C.R.	P
Quickly and accurately choose the most suitable apps	→	English-learning apps make students more focused instead of distracted	0.175	0.219	0.060	2.934	0.003***
Interesting functions on apps motivate me to learn actively	→	English-learning apps make students more focused instead of distracted	0.191	0.231	0.072	2.660	0.008***
Apps help to take advantage of fragmented time	→	English-learning apps make students more focused instead of distracted	0.125	0.137	0.075	1.651	0.099*
Extensive topics on apps enrich my language corpus	→	Evaluations of the efficacy of the existing English-learning apps	0.204	0.237	0.066	3.078	0.002***
Apps help to take advantage of fragmented time	→	Evaluations of the efficacy of the existing English-learning apps	0.171	0.191	0.070	2.444	0.015**
English-learning apps make students more focused instead of distracted	→	Evaluations of the efficacy of the existing English-learning apps	0.143	0.144	0.068	2.090	0.037**

Note: *$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

IV. DISCUSSION AND CONCLUSION

To investigate the significant factors that influence the effects of English-speaking learning and practicing in the post-pandemic era, this study gives questionnaires to students to evaluate the required quality of teachers and the efficacy of the existing English-learning apps. The results of the data analysis are summarized in two path analysis models (shown in Figs. 2 and 3). Previous studies paid attention to the status quo of spoken English learning in class and app practices after class, but there has not been a systemic analysis that organizes various factors into causal relationships.

This study provides insights into improving the effects of in-class teaching and instructs the function and property design of apps, and aims to optimize the "teaching and learning" mode in the post-pandemic era. The model for teachers' in-class teaching indicates that native English-speaking teachers and teachers with good digital literacy are highly demanded in the post-pandemic period. These two types of teachers promote the benefits of interactive activities and digital teaching on students' speaking-English. The model for students' self-practicing on apps reveals that the popular features help students to save time.

Based on these two models, apps can classify their functions into two parts – the fragmented practicing section and the essential practicing section. The fragmented practicing section sets short and quick knowledge and questions that allow students to learn in their fragmented time. The essential section summarizes the necessary and important parts, so students can concentrate on practicing and get rid of the hesitation in selecting.

Students can choose apps with interesting and special features to practice their English, as these functions attract students to practice English more. In the post-pandemic era, people spend more time playing with their phone. Attractive English-learning apps can help students transfer wasted time into better TOEFL/IELTS grades. According to our findings, students could explore apps with various functions, and take advantage of these apps to improve self-efficacy and enrich their knowledge.

The criteria for recruiting teachers can be more focused on native English-speaking teachers and teachers with high digital literacy. Native English-speaking teachers are popular and effective leaders in arranging activities in class. These teachers create situations that are close to daily conversations, so students are willing to participate and are easy to make progress on speaking. In

addition, teachers are encouraged to organize more interactive activities. A good use of available digital devices can motivate students to actively participate in class and to better perform themselves. Immersive participation improves students' presentation skills and help teachers effectively use class time.

V. LIMITATION AND FURTHER RESEARCH

The coverage error might be occurred in this survey, as most students are from the International College Beijing at China Agricultural University and major in economics or communication. To popularize the results of this study, further research can explore TOEFL/IELTS English learning and practice for students in the field of science and engineering. In addition, the results of this research can also be enriched through some investigations on students' learning and practicing in the reading, listening, and writing sections.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

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