The Facilitation of Modern Technics for English Pronunciation Class in Foreign Language Learning in China

Qian Zhou¹, a, Yonghong Li², b, Lei Guo³, c

¹Key Laboratory of China's Ethnic Languages and Information Technology of Ministry of Education, School of Foreign Language, Northwest Minzu University Lanzhou, Gansu 730000, China
²Key Laboratory of China's Ethnic Languages and Information Technology of Ministry of Education, Northwest Minzu University Lanzhou, Gansu 730000, China
³Key Laboratory of China's Ethnic Languages and Information Technology of Ministry of Education, Northwest Minzu University, Lanzhou, Gansu 730000, China

¹smiling424@126.com, +86-0931-2938012
²lyhweiwei@126.com, +86-0931-2938012
³16109892@qq.com, +86-0931-2938012

ABSTRACT. English is learned in China as a foreign language, the foreign language setting made it very difficult to learn the standard pronunciation. But the shortcomings can be greatly overcome by the proper use and facilitation of modern technics. This passage focused on what and how software and mobile phone Apps can be used in English class to improve the performance of English pronunciation.

CCS Concept
• Social and professional topics → Adult education

1. INTRODUCTION
In the research field of language learning, the term “Second Language” and “Foreign Language” mean very different things. Generally speaking, a foreign language setting involves learning environments where the target language is usually learned in an institutional or academic context where learners have no or limited opportunities for interacting with the target language community. A second language setting, which is clearly distinct from a foreign language one, refers to a range of learning contexts where the target language is used for communication in daily life [1].

2. THE PROBLEMS OF LEARNING ENGLISH PRONUNCIATION WHEN ENGLISH IS LEARNT AS A FOREIGN LANGUAGE.
In China, according to the national education report [2] in 2015 there were more than 300 million English Learners in the whole country. For Chinese students, learning English is always very hard, as they are lacking of the Language environment, even their teachers are all native Chinese people. They learn English only in class or in English tutoring institutions and their Pronunciation were picked by listen to and mimic their teachers and sound recordings of native English teachers.

But this way of learning pronunciation has a lot of problems, for example, lacking of necessary phonetic knowledge and not knowing the differences between English pronunciation and Chinese.
3. WHAT MODERN TECHNOLOGY CAN DO TO HELP THE ENGLISH LEARNING PROCESS.
In order to make the learning of English pronunciation class easier, modern technology should be used in English class and after-class practice to partly makeup the “foreign language learning” setting.

3.1 What are the modern technologies that can be used in class. (This part is introduced based on the functions of two popular software: ZHUORUAN and HY-9900S.)
As picking up the pronunciation of a language needs three must-to-do things, first, enough input(listening); second, mimic the pronunciation; third, correction. So the facilities of the class should fulfill these basic requirements of these.
In China, there are many different kinds of teaching equipment and software which can serve different teaching purposes, the following functions are very basic and necessary.

3.1.1 Role play
Role play is a very interesting, welcomed and effective teaching method. But the traditional role play is not suit for pronunciation training. As pronunciation training needs many stops and corrections. If the process of role play is stopped for many times, than the interest of it will lost. But if the pronunciation mistakes are not corrected, the purpose of getting correct pronunciation will lose. In order to make the pronunciation practice combined the interest of role play. Many software, like, ZHUORUAN, HY-9900S Language training system… all can help to record the dialogue of the role play. The interface of ZHUORUAN is like the following picture:

![Figure1. The interface of “role play” on the software.](image)
And the video recordings of this system can help the students to re-watch and let the teachers to point out the mistake and let the students to make repeated corrections.

3.1.2 Facetime function.
In pronunciation teaching, the demonstration of the way of pronunciation is very necessary. The “facetime” function can help the students to watch the face of the teacher more closely through the equipment. And the teacher can watch the pronunciation of the students more clearly. The interface on ZHUORUAN is like the following:
3.1.3 View the sound wave function.
As we have said before most of the English teachers in China are native Chinese, then how to ensure that the people have got the right demonstration and pronunciation is a big problem. In this software, if the users use the sound or video database already stored in the equipment the machine can show the corresponding sound wave for the said sentences. Like the following picture:

Figure 3. The interface of “View the sound wave function” on the software.

And also, when the students read and mimic that sentence, the machine can show the speakers’ sound wave and compare it with the standard sound wave. By compare two sound waves, the students can clearly see the difference between themselves and the standard pronunciation and then further make corrections.

But a previous condition for using this software is that the teachers must give enough phonetics and acoustic phonetics knowledge to the students to let the students understand the relationship between the pronunciation and the corresponding characteristics of showed on the sound wave.

3.1.3.1 A simple guide to “How to read the sound spectrogram”.

Figure 4. An example of a sound spectrogram.

Formant: the red horizontal lines on the spectrogram are called formant line. The lowest line shows the first formant(F1); the second line above the lowest shows the second formant(F2); the third line above the second shows the third formant(F3). The three formants are correlated with the quality of the vowel.
Intensity: the darkness of the sound spectrogram shows the intensity.
Pitch: the blue line on the sound spectrogram shows the pitch.

3.2 Software or App which can be used in self-practice.
As the class time is quite limited and standard pronunciation can only be gained through massive practice. Effective self-training becomes very important.

With the development of modern technology, smartphone becomes a good assistant to improve the quality and efficiency of pronunciation self-practice. In the past, the homework assigned from the pronunciation class were difficult to be followed by the teachers and also impossible to make any guidance. The pronunciation improvements made in the class can easily “slide away” because of lacking of efficient practice after class.[3] Two software which can be loaded on the phone can be loaded on the smart phone can help to do some make-up work for this, they are “IPA Phonetics”, “Fun Dubbing”.

3.2.1 What these two software can do, to help the practice of English pronunciation.
Generally and from the perspective of phonetics speaking, there are two systems of English phonetics, namely, segmental phoneme and super segmental phoneme [4]. Segmental phoneme includes vowels and consonants; super segmental phoneme includes stress, thyme and intonation. So the practice of pronunciation naturally includes these two parts.

3.2.1.1 The self-practice of English vowels and consonants.
The quality of an English vowel is determined by the position of the tongue and the shape of the mouth. A slight change of the position of the tongue can cause the change from one vowel to others [5]. And the difference of consonants are caused by the change of position of pronunciation and way of pronunciation. So the learning of vowels and consonants are very difficult, especially, for vowels.

The App “IPA Phonetics” is specially designed to target on the pronunciation of vowels and consonants. This App has demonstrated the standard pronunciation of individual English pronunciation and also drew diagrams of tongue positions to the vowels and consonants. The learners can use this App to do self-correction after class.

3.2.1.2 The self-practice of English Prosody.
Chinese is a “syllable timed” language which means the time duration among syllables are almost the same. But, English is a “stress-timed” language which means the time duration among neighboring stress is the same [6]. So when the Chinese speak English, they tend to treat the English prosody the same way as the Chinese.

“Fun Dubbing” has a huge bound of sound and video recordings in its online data base. The learners can use this software to do dubbing for movies, speeches, textbooks and so on. And while dubbing the speakers can record themselves also on this app and send it through QQ or Wechat to teachers to check. This can not only let the teachers to follow the homework assigned but also make individual guidance to the students.

4. CONCLUSION
As the difference among the English and Chinese pronunciation are huge, it is difficult to pick up relatively standard pronunciation when English is learnt as a foreign language. This paper has introduced some very practical modern technics which can be very helpful to class training and after class learning of English pronunciation.

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