

The Effectiveness of Learning and Training English Pronunciation with Capt System: A Critical Review on Pronunciation Feedback from Real and Virtual Language Teacher

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Abstract: This paper aims to review and analyze the pros and cons of human teachers and virtual teachers in computer-assisted English pronunciation learning and training as well as computer-assisted pronunciation training (CAPT) technology used for English pronunciation training and learning. It indicates that computer-assisted English pronunciation training would be more effective than human teachers' English pronunciation training by comparing English pronunciation training given by human teachers and computer-assisted English pronunciation training technology. In addition, it proposes the reasons for using CAPT technology, and limitations of the CAPT system, and various effective and efficient measures on how to learn and train English pronunciation from varied perspectives. Finally, it induces the effectiveness and efficiency of learning and training English pronunciation with computer-assisted pronunciation training (CAPT).

Keywords: English pronunciation; Human teachers; Virtual language teachers; CAPT (computer-assisted pronunciation teaching); Pedagogical perspective

1. Introduction

Spoken English is of great significance in our society. For instance, the spoken English exam is regarded as a vital portion not only in college entrance examinations but also in various international tests such as SAT, IELTS, GRE, TOEFL, and so on. With the increasing globalization, communication, and cooperation with people all over the world are increasing. Chinese students have a poor ability to speak, compared to listening and reading. While English pronunciation is one of the most vital parts of oral English. In this way, English pronunciation should be focused. Also, English pronunciation lays a solid foundation for learning English. The author claims that English pronunciation is vital for English beginners. Also, pronunciation feedback given by the teacher should be effective. Firstly, the author carries out research using group conferences, individual interviews, and in-class observations with the assistance of computer training. What's more, the writer also carries out research on feedback in classes, meetings with language teachers and target objects' different attitudes to pronunciation feedback, and observations of the way how feedback is delivered in target language classes. Finally, the feedback strategies from a real teacher and a virtual teacher named Artur are tested and evaluated.

2. The Reasons for Training English Pronunciation with the Capt System

The writer proposes that the responsibility of language teachers in pronunciation training is to make the students realize the distinction between pronunciation features in the second language and those in the first language, to assist students to know some ways to be aware of the difference and to use iterative pieces of training to inspire students and produce the phoneme without conscious planning. The writer also states that in the pronunciation aspect, compared with the CAPT system it is more effective for teachers to train pronunciation. In fact, in some rural and undeveloped districts, the CAPT system is unavailable or the CAPT system is not well developed in those areas. And some students may not be accustomed to using the CAPT system to learn and train individual pronunciation. Although teachers play a significant role in pronunciation teaching and training. However, it is claimed that the CAPT system is more effective and efficient than human teachers.

First, it is less effective for teachers with a heavy accent to teach English pronunciation. Although Jenkins (1998) pointed out that a native accent is not a dominant factor for learners of English. For example, a businessman cooperates with another businessman from a different country. Both two businessmen must communicate with each other in English without needing to speak like natives. However, Marinova-Todd (2003) claimed that there are reported positive outcomes on native-like proficiency in pronunciation. Furthermore, Stern -60-Advances in Higher Education

(1983) proposed that native speakers have an intuitive sense of meanings and social settings can be easily communicated by them. Consequently, the Automatic Speech Recognition (ASR) of the CAPT system is capable of estimating learners' pronunciation whether is as accurate as native speakers. A virtual teacher named Artur of the CAPT system can assist learners to practice articulatory positions and movements using articulatory animation by giving detailed feedback and instructions. If English beginners learn English pronunciation from teachers with a heavy accent, students may master English pronunciation with an accent from the beginning. By contrast, if learners are monitored by automatic speech recognition (ASR) and learners' mistakes can be instantly corrected by the computer system, learners will be able to grasp the key points in the process of pronunciation learning. In this way, it is more effective and efficient for learners to learn and train in English pronunciation with the CAPT system than for teachers with heavy accents.

Secondly, teachers are not able to correct and assess students' wrong English pronunciation because of time insufficiency. It is difficult for teachers to evaluate students' work carefully because of the constraint of time. For example, to deliver complete feedback, teachers need to illustrate the feedback in detail to students one by one. Due to the constraint of time, some students' errors cannot be corrected. For instance, the writer proposes that in the classroom, the type and amount of feedback on English pronunciation is limited, owing to time insufficiency and the number of students. However, the type and amount of feedback on English pronunciation are available for the CAPT system to correct pronunciation errors and improve learners' confidence. Learners can figure out the difference between the wrong and correct pronunciation. What's more, students can request formal judgments and feedback given from the CAPT system by pressing a button. CAPT system is also capable of collecting the frequency of pronunciation errors of students and delivering various useful exercises about high-frequency errors. In this way, it is more effective and convenient for learners to learn and train in English pronunciation with the CAPT system.

Thirdly, relying too much on teachers teaching English pronunciation is easier for students to form a teacher-led and teacher-assessed learning habit instead of cultivating a self-rehearsal and self-monitoring ability. Morley (1991) stated that human teachers as pronunciation coaches can assist students to cultivate self-rehearsal and self-monitoring abilities. Morley (1991) also stressed that students can change study habits from a teacher-led and teacher-assessed mode to an independent mode. Using traditional methods for teaching and training English pronunciation, students rely too much on the teacher. If students cannot remember some detailed or key points in English pronunciation, students cannot go over what students have learned at home. In this way, students may not totally grasp English pronunciation and rely on teachers to train and learn English pronunciation. By contrast, learners can review, learn, and preview English pronunciation at any time independently with the assistance of the CAPT system. Therefore, human teachers are not effective in students' pronunciation learning process. At the same time, with a more independent mode of self-disciplined and self-motivated learning, students can improve their problem-solving ability, which is beneficial for students, in the long run, no matter in daily life or studying process.

Finally, monitoring students' work will require frequent check-in and constant attention, human teachers cannot monitor students' performance and track students' progress around the clock because the working hours and energy of teachers are limited. It is challenging for teachers to pay attention to each student because of the large size of the class. Also, without appropriate resources and methods, teachers are hard to monitor and follow the performance of each student. Teachers are difficult to evaluate each student's performance without any biased judgments. However, CAPT technology can avoid such problems. CAPT technology can monitor students' performance, track students' progress, and stimulate students' self-confidence. For example, a CAPT system can deliver adequate relevant, and detailed feedback for users to know the way to shift a deviant English pronunciation. At the same time, such a stimulating practice makes students aware of individual progress and become confident in self-production. What's more, students can set individual desired numbers of feedback according to individual preferred needs. On one hand, students can determine the amount of feedback from the virtual tutor initiatively. On the other hand, students can set the criteria of feedback students are satisfied with. In this way, students are motivated to learn and train in English pronunciation consciously.

3. Limitations on Training English Pronunciation with the Capt System

The author points out that there are some constraints on the computer-assisted pronunciation training (CAPT) system. Taking the computer-based speech displays as an example, the IBM SpeechViewer can be used under the supervision and support of human teachers. For instance, if teachers know little about computer technology, teachers may have trouble using SpeechViewer. Consequently, teachers cannot take advantage of the CAPT system. In addition, the sample of digitized speech must be saved in large amounts of electronic storage. However, Stenson (1992) stated that SpeechViewer is more suitable and effective for adults than children to learn and train in English pronunciation. Therefore, adults can learn and train in English pronunciation through SpeechViewer without supervision and

support. With the fast development of our technology, all these problems would be settled as fast as possible. The CAPT system is being improved gradually.

4. Strategies for Training English Pronunciation

Although the CAPT system is more effective and efficient for learners to master and train English pronunciation compared with teachers. However, in some undeveloped areas, the CAPT system is not available. Therefore, various Strategies for training and grasping English pronunciation are needed.

4.1 Behaviour of Human and Virtual Teachers

As for human teachers, firstly, teachers can continuously improve individual pronunciation, avoid a heavy accent as far as possible, and play a good exemplary role. Secondly, teachers can continuously improve their individual ability to use computer technology. In this way, the SpeechViewer is more available to learn and train English pronunciation. Finally, pronunciation learning and training can be planned with a combination of speaking and listening activities. Most students prefer to learn and improve their spoken English by watching English movies. As a result, teachers can teach and train English pronunciation by combining it with English movies or native-like English pronunciation tapes. Teachers can require students to imitate and practice the pronunciation with each other and record individual pronunciation at home and playback the records frequently. Also, making a short dialogue can be added to pronunciation teaching and learning. In this way, students can practice listening as well as oral English and teachers can monitor students' performance.

As for virtual teachers in the CAPT system, as it is cited in the paper, on one hand, the virtual tutor Artur needs to add a human-like character because the writer proposed some students anticipated the way of receiving feedback which is like a human teacher. On the other hand, Artur needs to provide more details in relation to articulatory animation and rules and students' tongue movements.

4.2 Behaviour of Students

Instead of the key role of human and virtual teachers, students also take responsibility for English pronunciation learning and training. Instead of depending too much on human teachers for learning English pronunciation, students need to raise awareness of the vital of English pronunciation learning and train in English pronunciation independently. In developed districts, students can make good use of the CAPT system to master and train in English pronunciation. In undeveloped areas, students can expose themselves to native-speaker circumstances. For example, students can choose some fancy dramas and try to imitate the intonation. What's more, to achieve the training target, students need to cooperate with teachers' tasks seriously and timely.

5. Conclusion

This paper analyses the effectiveness, some limitations, and pedagogical strategies of training English pronunciation with a computer-assisted pronunciation training system, to emphasize the significance of English pronunciation learning. Since oral English communication ability is of great significance and English pronunciation is one of the vital portions of spoken English ability, further exploration of more effective and efficient measures of teaching English pronunciation is needed. Whether students can adopt CAPT to master and train in English pronunciation or not depends on the development of areas. Due to the disadvantages of human teachers, human teachers need to change the traditional teaching modes, making full use of multimedia technology and effective evaluation, advocating for students to learn independently. Although there exist some limitations on CAPT technology. However, in most cases, it is more effective and efficient to master and train English pronunciation with the CAPT system.

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