INTERNET-BASED PRONUNCIATION TEACHING: BENEFITS, OBSTACLES AND RECOMMENDATIONS

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Abstract: ***This paper presents an overview of Computer Assisted Pronunciation Teaching (CAPT), expounds limitations of available CAPT tools for pronunciation teaching, describes the internet as an instructional tool for pronunciation learning and teaching, lists the obstacles to internet use as well as some recommendations made for language teachers, and finally summarizes the role of the internet in pronunciation training by considering the higher education context in North Cyprus in which an increasing number of foreign language teachers have begun to use the internet for teaching L2 pronunciation by stressing the prominence of incorporating a wide variety of online resources, such as tongue twisters, vocal tract diagrams, vowel and consonant charts, video animations, phonetic transcription exercises, and authentic texts into their programs and courses. In addition, a sample needs and background knowledge assessment questionnaire and a week by week description of a 15 week pronunciation course are included in the appendixes section at the end of the paper.***

Keywords: ***Pronunciation, pronunciation teaching, internet, language teaching.***

Özet: ***Bu makale Bilgisayar Destekli Telâffuz Öğretiminin (BDTÖ) tarihini sunmakta, telâffuz öğretimi ile ilgili mevcut BDTÖ araçlarının sınırlılıklarını açıklamakta, telâffuz öğrenimi ve öğretiminde eğitsel bir araç olarak interneti betimlemekte, internet kullanımı ile ilgili güçlükleri ve dil öğretmenleri için yapılan bazı tavsiyeleri sıralamakta, ve sonuç olarak artan sayıda İngilizce öğretmeninin amaç dile ait telâffuzu öğretmek için internet kullandığı Kuzey Kıbrıs Türk Cumhuriyetindeki yükseköğretim bağlamını düşünerek ve tekerleme, ses aygıtı diyagramları, ünlü ve ünsüz ses tabloları, video animasyonları, fonetik transkripsiyon egzersizleri ve doğal metinler gibi birçok elektronik kaynağı dil öğretmenlerinin programlarına ve derslerine eklemenin önemini vurgulayarak, internetin telâffuz öğretimindeki rolünü özetlemektedir. Ayrıca örnek bir ihtiyaç ve art bilgi ölçme sormacası ve 15 haftalık bir telâffuz dersinin tanımı makalenin sonundaki ekler bölümünde yer almaktadır.***

Anahtar sözcükler: ***Telaffuz, telaffuz öğretimi, internet, dil öğretimi.***

1. INTRODUCTION

In recent years, there has been a prominent shift of interest from traditional pronunciation teaching to Computer Assisted Pronunciation Teaching due to the use of modern technology within the field of foreign language learning and teaching. Various types of computer hardware have been introduced and a survey of the literature shows an emerging interest among language teachers and researchers in the advantages of computer-assisted pronunciation pedagogy (Perdreau and Hessney 1990, Johnson and Rekart 1991). Many empirical studies have explored the effectiveness of this technology in second / foreign language pronunciation teaching (Johnson, Dunkel and Rekart 1991, Schwartz, Markoff and Jain 1991). Since Computer Assisted Pronunciation Teaching (CAPT) provides students with a private, stress-free environment where they can access virtually unlimited input, practise at their own pace, and receive instantaneous feedback through the integration of Automatic Speech Recognition (ASR), which can be accepted to be beneficial to second / foreign language learning (Neri, Cucchiarini, Strik and Boves, 2002).

However, when examined carefully, the display of products may not seem to be completely satisfactory. Many researchers see commercially available programs as fancy-looking systems that easily impress students and teachers at first but eventually fail to meet sound pedagogical requirements (Watts 1997, Murray and Barnes 1998, Price 1998, Warschauer and Healey 1998, Pennington 1999). It is owing to this simple reason that there should be clear pedagogical guidelines relevant to the related type of environment when designing a pedagogically sound CAPT system.

The rationale for discussing pronunciation in this article is that foreign language teachers in North Cyprus, in recent years, have begun to use the internet for teaching pronunciation considering the prominence of incorporating a wide variety of online resources, such as tongue twisters, vocal tract diagrams, vowel and consonant charts, video animations, phonetic transcription exercises, and authentic texts into their programs and courses. This paper presents an overview of the current trends in pronunciation teaching, expounds limitations of available tools for pronunciation teaching, describes the internet as an instructional tool for pronunciation learning and teaching, lists the obstacles to internet use as well as some recommendations made for language teachers, provides a week by week course description based on World Wide Web. In addition, a sample needs and background knowledge assessment questionnaire is included in the appendixes section at the end of the paper.

2. LIMITATIONS OF AVAILABLE CAPT TOOLS

Some of the CAPT systems that are available on the market provide information on how speech sounds should be articulated or explain how the speech organs should be positioned for the target sound. Despite providing learners with visual cues, these systems are remarkably limited. They only train receptive abilities and do not motivate the student to produce an utterance, while it is well known that speaking is essential for improving pronunciation (Hendrik, 1997).

Most recent systems; however, offer record and playback features whereby the learner produces speech that is recorded and can subsequently be evaluated by a teacher or used

for comparison with a native utterance by the students themselves. The problem with the former type of systems is that it is up to the students to determine whether and how their own utterances differ from the native ones, although many studies have made it clear that L2 learners often become unsuccessful at perceiving phonetic differences between their L1 and the L2 (Flege, 1995). On the other hand, the latter type of systems, in which the recorded speech has to be evaluated by a teacher, suffer from the unfavorable teacher-student ratios, just like language classes in schools and universities.

Distance-learning systems allow circumventing this problem. These systems require the students to first practice and record themselves and then either up-load the audio-files to a web page or send the files via 'voice e-mail'. Licensed trainers listen to the files, evaluate and score them, and finally send them back to each student (Ferrier and Reid 2000, Wimba 2002). The shortcoming of these systems is that the feedback will be provided according to the evaluator's time and willingness.

Some CAPT systems utilize tools (e.g. Pronunciation 2002, Lambacher 1999) that perform acoustic analyses of amplitude, intonation, duration and frequency of the student's speech and show the results on a spectrographic display. Although the level of detail with this type of feedback can be very high, the effectiveness of these systems is also questionable. Needless to say, students will have a hard time deciphering these displays. Moreover, even phoneticians may find it difficult to extract the information needed to improve pronunciation. As opposed to this, systems with easy editing features, such as WinPitchLTL (Germain-Rutherford and Martin 2000), require the teacher to provide an explanation to accompany these displays, in order to make them easy-to-interpret. This time the problem is twofold: the student has to trust in the teacher for individual feedback, and the costs that this feedback-system implies are rather high in terms of the time the teacher has to spend to learn acoustics and to provide such detailed feedback for each of the students' utterances.

Relevant to the problems mentioned so far, ASR technology seems to provide an optimal solution to pronunciation training. Systems requiring continuous back up from a teacher or expert are neither cost- nor time-effective. However, the fully automatic systems mentioned above only offer generic instruction that can be relevant for many different learners, but each learner is unique and ideally deserves undivided attention. It is due to this simple reason that optimal training should envisage a one-to-one learner to tutor relationship. Systems that include ASR modules can offer this type of interaction, making it possible to detect individual errors and to provide immediate feedback. Nevertheless, due to the shortcomings of this technology, most of the systems available are far from ideal. One way of providing immediate, though implicit, feedback on pronunciation, is employed by systems reacting, by means of graphic simulations, to a student's prompt (see TracyTalk by CPI and the MILTS microworlds described in Holland et al. 1999, Wachowicz and Scott 1999). If the command is accurately pronounced, the computer will recognize it and perform it. Though being very realistic, this type of feedback alone does not provide any metalinguistic information on the quality of the utterance.

For this reason, some systems also include or solely resort to a score of the students' utterance. Since this automatic scoring gives the learner immediate information on overall output quality, the usefulness of this technology cannot be underestimated. Apart from this, anecdotic evidence of positive student appreciation of global automatic pronunciation scoring has been reported (ISLE 1.4 1999). However, the difficulty lies in developing computer measures adequately reflecting pronunciation quality. One criterion that has been used to assess the adequacy of machine pronunciation scores is that they should correlate strongly with pronunciation ratings assigned by human experts. Though this seems to be a

necessary criterion, it is certainly not sufficient to guarantee machine pronunciation scores constituting an appropriate basis for providing feedback on pronunciation. For example, various temporal measures of speech quality that can be calculated automatically seem to be highly correlated with human ratings of pronunciation and fluency (Cucchiarini et al. 2000a, Franco et al. 2000). Generally speaking, measures denoting a higher speech rate are related with higher pronunciation ratings. Owing to the strong correlations with human ratings, these temporal machine scores seem to be suitable for pronunciation testing, but it would not be logical to use them as a basis for providing feedback on pronunciation: telling students to speak faster is not likely to improve their pronunciation quality. Fresh Talk exemplifies the sort of system in which nonnativeness measures, such as temporal measures are used as a basis for providing feedback, and indeed, the feedback provided did not prove to be effective to improve the users' pronunciation skills (Precoda et al. 2000).

Some systems, like the Talk to Me/Tell Me More series by Auralog (Auralog 2002) show a score and an oscillogram of the student's utterance. An oscillogram of the model utterance is presented simultaneously to allow for comparison. However, oscillograms are hardly interpretable. For this reason, the student makes random attempts at correcting the presumed errors, which, instead of improving pronunciation, may have the effect of reinforcing bad habits (Eskenazi, 1999). In order to be effective, feedback should be comprehensible in the first place. Although many visual displays, such as oscillograms and spectrograms may look very impressive, they provide very little useful information on the pronunciation errors the student made (Ehsani and Knodt, 1998).

Kommissarchik and Kommissarchik (2000) have discussed the weak points of these forms of feedback and have developed a system for teaching American English prosody, BetterAccentTutor, in which comprehensible feedback is provided. Immediate, automatic audio-visual feedback is provided on intonation, stress and rhythm. Both the students' and the natives' patterns are displayed on the screen so that the students can compare them and notice the most relevant features they should match (Betteraccent 2002). This program; however, does not include segmental errors.

It is through the ISLE project that a serious attempt at diagnosing segmental errors and providing feedback on them has been made (Menzel et al. 2000). This system targets German and Italian learners of English, and aims at providing feedback on pronunciation errors, making emphasis in particular on the word level, for which it checks mispronunciations of specific sounds and lexical-stress errors. The knowledge-based character of this system implies that this approach can only be adopted when the L1 background of the user is known, when the number of L1s is limited, and when knowledge on typical errors is available. The danger of such systems is that they are not able to detect individual intra-learner idiosyncrasies, which may also be harmful to comprehension.

The system provides feedback by stressing the locus of the error in the word. In addition, example words are shown on the screen, which contain, highlighted, the correct sound to imitate and the one corresponding to the mispronounced version. The student can also click on either word or on the single sound to hear them pronounced. Although this feedback design seems to be satisfactory, the system produces poor performance results. The authors report that only 25% of the errors are detected by the system and that over 5% of correct phones are incorrectly classified as errors. As the authors comment, with such a performance "students will more frequently be given erroneous discouraging feedback than they will be given helpful diagnoses" (Menzel et al. 2000:54).

3. THE INTERNET AS AN INSTRUCTIONAL TOOL FOR PRONUNCIATON LEARNING AND TEACHING

Wilson (1995) states, teachers are employing the Internet to access libraries throughout the world; to communicate with parents and students; to acquire instructional materials; to share lesson plans, curriculum ideas and courseware; to connect students from different cultures to let them share their views and concerns about the world; and to download current information beneficial in the classroom.

The Internet, a technological tool in essence, can also be used as an instructional tool for pronunciation learning and teaching. However, before utilizing the Internet in the foreign language classroom, the language teacher should give a questionnaire to his/her students to determine their needs and find out about their word processing, e-mail, chat and online learning skills (*See Appendix I for a Sample Needs and Background Knowledge Assessment Questionnaire).* Then, language teachers who teach L2 pronunciation to the students at a university level use the Internet to communicate with their students, to acquire instructional materials and to download data useful for the students from a wide variety of Web sites.

4. OBSTACLES TO INTERNET USE IN FOREIGN LANGUAGE LEARNING AND TEACHING AND RECOMMENDATIONS FOR LANGUAGE TEACHERS

Despite providing a variety of benefits to facilitate foreign language learning, the Internet is not without some obstacles or hurdles. The first obstacle for Internet use in public schools and colleges in North Cyprus is that *some language teachers and school directors, especially those who are seniors, are computer illiterate, inexperienced in e-learning and e-teaching,* and they need to be educated to employ the online tools. It is possible to surmount this obstacle by:

a) operating training facilities, such as seminars, workshops, talks and hands-on-experience for each school or college,

b) integrating personnel knowledgeable in computer technology into these educational institutions (Kargbo, 2002).

c) team teaching with less experienced teachers,

d) stimulating teachers to participate in online discussion groups,

e) encouraging teachers to subscribe to blogs or podcasts (Dudeney and Hockly, 2007),

f) encouraging them to access to online language teaching sites and read the online journals or magazines in relation to the field of language learning and teaching.

The second obstacle for Internet use concerns *telecommunication and power supply.* These services are very costly for some schools in North Cyprus. Some schools do not have direct access to the Internet and in a school where the Internet is available, it is of poor quality. This obstacle can be overcome by:

a) allocating more funds to providing internet services,

b) modernizing the basic systems and structures of telecommunication in the place where the school is located,

c) buying well-equipped new computers for the computer laboratory.

The third obstacle for Internet use relates to *busy lines*. Once the lines are busy because of many users, it may take time to access information or browse the Internet, which is, for sure, an undesirable situation by language teachers. It is possible to clear this obstacle by:

a) starting foreign language lessons at non-busy hours,

b) building a powerful Internet supplier in the school (Singhal, 1997).

The fourth obstacle for the application of the Internet in educational institutions in North Cyprus is that of *censorship*. The Internet provides access to all kinds of issues and subjects, no matter whether they are appropriate or not for students, which, undesirably, may give rise to various problems. Though it is probable to monitor every student, it is improbable to check what will come into view on the screen when students click on an interesting link relevant to the subject that they are searching (Chafe, 1999). This obstacle can be overcome by:

a) utilizing particular programs which filter out unrelated sites,

b) setting norms or guidelines as to censorship,

c) warning the students not to access to unsuitable sites on the Net.

The fifth obstacle for the use of the Internet in teaching a foreign language relates to *using e-mail outside the classroom context*. Students can encounter a problem in sending an attachment by e-mail, opening an e-mail attachment, deleting a virus received by e-mail and cleaning 'spam' e-mail. It is possible to overcome this obstacle by:

a) showing the students how to send class work, assignments or homework as e-mail attachment,

b) presenting online practice for opening an e-mail attachment,

c) displaying the students how to delete a virus received by e-mail through specific virus deletion programs,

d) filtering out spam via special software,

The sixth obstacle for the use of the Internet in foreign language learning and teaching is its being regarded as *uncontrolled and disorganized*. The information is devoid of real organization. This obstacle can be overcome by the teacher by:

a) designing a lesson around a particular site or set of sites. However, students may become demotivated while trying to access to the sites that do not exist any more or have altered radically, requiring a need to redo work or figure out how a site works again (Chafe, 1999).

b) employing the technology-based materials that many course books provide nowadays (Teachers can get free teaching materials in relation to language skills and language areas through the direct access to the web sites: http://www.cambridge.org/elt/face2face/, http://www.pearsonlongman.com/totalenglish/ on the Internet.)

The last obstacle with internet-based foreign language learning and teaching is the difficulty of maintaining control over learner activities in a computer room. This obstacle can be overcome by:

a) having the computers around the outside walls of the class to give the teacher the chance to see what is on each screen and to help the students when necessary,

b) having a central table where the students can get together for more communicative activities,

c) making use of this table as a storage place for pens, books, and dictionaries to help keep the computers free of clutter and easy to use (Dudeney and Hockly, 2007).

5. A SAMPLE INTERNET-BASED PRONUNCIATION COURSE PLAN

In this section, a pronunciation course plan developed based on using the internet will be presented:

Students: The first year students at the age of 18 on avarage with upper-intermediate English level.

Class size: Approximately 10 students in each class.

Computer knowledge: Students have basic computer knowledge

Teachers: Native and non-native teachers of English as well as computer teachers for providing technical supports.

Technological Facility: 1 computer laboratory with well-equipped (i.e. multi-media) and internet-connected computers.

Duration of the Course: 2 hours each week, totally 100 minutes; 15 weeks for one semester in one academic year.

Course Components: The course consists of three main components: pronunciation component, autonomous learning component, and testing and evaluation component. These components are expounded in the following section:

5.1 Pronunciation component (from week 1 to week 15, exclusive of week 8 and 15)

In Week 1, the teacher teaches phonetics, kinds of phonetics, and the organs of speech: the vocal tract to the students. In Week 2, the teacher focuses on the physiology of speech production and steps in speech production. In Week 3- 4, the focus is on the identification of consonants and vowels in English. In Week 5- 7, the teacher teaches /T/, /τ/, /σ/, /Δ/, /ζ/, /δ/, /ϕ/, /ϖ/, and /ω/ sounds to the students. In Week 8, the teacher gives a midterm exam to

the students. In Week 9, the teacher concentrates on teaching /λ/, /ν/, /ρ/, and /N/ sounds to the students. In Week 10-13, the teacher teaches /ι:/, /I/, /εI/, /E/, /Θ/, /Θ:/, /Λ:/, /ℊ/, /Y/, /υ:/, /o:/, and /oω/ sounds to the students. In Week 14, the teacher focuses on teaching phonetic symbols and transcription to the students. In Week 15, the teacher gives a final exam to the students.

5.2 Autonomous Learning component (every week at school or home)

Every week, the teacher recommends the students to browse through some pronunciation teaching sites on the Net to improve their perception and production of the sounds in English beyond the classroom context. They may either use the computers in the faculty laboratory or their personal computers at home. Especially, the web site http://evaeaston.com/pr/home.html is very useful for students' studying pronunciation on their own in that there are a variety of exercises, quizzes, activities, songs, and tongue twisters in relation to English consonants and vowels. This web site with its links to other pronunciation teaching sites may help the students improve their English pronunciation gradually, and most important of all the students can make their decisions as to what they want to learn at their pace in their own time.

5.3 Testing and evaluation component (in week 8 and week 15)

In week 8, the teacher tests not only the students' perception and production of the consonant sounds in English but also their phonetic knowledge as to place of the organs of speech on the diagram of the vocal tract. Unlike the midterm exam given to the students in week 8, the teacher tests the students' perception and production of the vowel sounds in English and their transcribing skills in the final exam given in week 15. A week by week course description is presented at the end of the paper. *(See Appendix II for a week by week course description for one semester of an Academic Year.*

6. CONCLUSION

It can be stated that available CAPT systems have a number of advantages as well as disadvantages. An ideal CAPT system is the one which meets the pedagogical criteria, such as input, output and feedback. Moreover, it should incorporate Automatic Speech Recognition technology.

In relation to input and output features, presently available technology is sufficiently advanced to realize the pedagogical requirements. The technology in our times may even provide possibilities that are not available in traditional classroom context. The developers, owing to facing economic constraints, tend to make use of outdated, bad quality and hence less effective multimedia when designing new CAPT systems. In a way, they aim at selling their products to a number of customers with affordable prices. However, the developers of such systems cannot benefit from modern technology at the highest level. In other words, the limitations of such systems utilizing out of fashion or less effective electronic equipment are due to financial matters or decisions made by the developers and they cannot be attributable to common existent problems in today's technology.

Surprisingly, the issue of feedback is a bleeding wound within the area of CAPT. The most effective and beneficial ways of providing accurate, reliable, and immediate feedback in CAPT systems need to be scrutinized carefully. Preparation of programs providing real-time, suitable and understandable feedback both on segmental and suprasegmental aspects can be achieved only by means of using ASR technology and pedagogical guidelines (i.e. incorporating those giving accurate and reliable feedback). Unfortunately, current ASR technology falls short in offering a detailed feedback or diagnosis to students. However, it is believed that CAPT systems giving reliable, correct and consistent feedback will be designed in the very near future though such systems are non-existent for the time being..

In this respect, it is the internet which can give a detailed feedback or diagnosis to students. The Internet, in Lee's (2001) viewpoint, is one of the most effective tools for language teachers to stimulate the students to collaborate, interact, and take an active part in the learning process. On the other hand, in an Internet-based lesson, the teacher is regarded as a facilitator who helps students to construct their own learning strategies. What learners internalize via the Internet is less under the control of the language teacher. The teacher's role comprises planning, analyzing, organizing, coordinating, and problem-solving in a student-centered context (Lee, 2001).

Despite its obstacles, it must be highlighted that the internet has prominent effects on communicating, teaching and learning. Thus, not only teachers but also their students should have the chance to connect to the net, gain experience, and become familiar with the functions of the Internet in educational life as it should be stressed that the internet is a very powerful tool for foreign language learning and teaching (Aydin, 2007).

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APPENDIX I

A SAMPLE NEEDS AND BACKGROUND KNOWLEDGE ASSESSMENT QUESTIONNAIRE

Here is a sample needs and background knowledge assessment questionnaire that language teachers can adapt to their classroom context to determine their students' needs in relation to the use of the Internet in the classroom as well as finding out about their word processing, e-mail, chat and online learning skills.

A) Using the internet in the classroom
List five good reasons for using the Internet in the classroom.

1 .....
2 .....
3 .....
4 .....
5 .....

B) Word processing skills		
I know how to ...	**Yes**	**No**
1) ... open, save, retrieve and print documents.		
2) ... select text using the mouse.		
3) ... select text using the keyboard.		
4) ... drag and drop.		
5) ... cut, copy and paste.		
6) ... search and replace.		
7) ... use Track Changes.		
8) ... undo and redo changes made.		
C) Basic e-mail skills		
9) I have my own e-mail account.		
10) I use e-mail at home.		
11) I use e-mail at work/school.		
12) I know how to write, send and read e-mails.		
13) I know how to send an attachment by e-mail.		
14) I know how to open an e-mail attachment.		
15) I know what a virus is.		
16) I know what to do if I receive a virus via e-mail.		
D) Basic chat skills		
17) I know how to use text chat.		
18) I know how to use voice chat.		
19) I know how to use common abbreviations in text chat (i.e. btw for by the way, brb for be right back)		
20) I know how to use common conventions in text chat (i.e. using ? to ask for the floor, "..." to show that you have not finished a contribution)		
21) I know how to use common conventions in voice chat. (i.e. using a special phrase or word, such as Over or Done to show when you have finished speaking)		

22) I know where and how to type comments in a chat window for text chat.		
23) I know how to use a microphone and speakers, or a headset for voice chat.		
24) I can type fast in text chat.		
25) I know how to use webcams with voice chat.		
E) Online Learning Skills		
26) I know how to do extra practice of what I have learned in class by using a CD-ROM in a self-study center.		
27) I know how to do exercises on a language website on the Internet, either individually or in pairs in a computer room at school.		
28) I know how to use an ICT tool, such as blogs, wikis, chat or podcasts, for project work, within or beyond the classroom context.		
29) I know how to e-mail my homework or class assignment to my teacher.		
30) I know how to use e-mail on the Internet.		
31) I know how to use chat on the Internet.		
32) I know how to phone on the Internet.		
33) I know how to share activities on the Internet		
34) I know how to search for information on the Internet		
35) I know how to download software or music from the Internet.		

(Adapted from Hismanoglu, 2008).

APPENDIX II

A WEEK BY WEEK COURSE DESCRIPTION FOR ONE SEMESTER OF AN ACADEMIC YEAR

Week 1
Aim: To learn about phonetics, kinds of phonetics, and the organs of speech: the vocal tract
Focus: Defining phonetics, kinds of phonetics, identifying the organs of speech: the vocal tract
Level: Upper-intermediate
Skill(s): Defining, Identifying
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.phonetik.uni-freiburg.de/~gut/Phonetik/VLSS06_1.ppt
http://www.umanitoba.ca/faculties/arts/linguistics/russell/138/sec1/anatomy.htm
http://www.rsc-ne scotland.ac.uk/eolympics/organs_of_speech/index.htm

In this session, students use the internet to get information about phonetics, kinds of phonetics and the organs of speech. Firstly, the teacher asks the students to define phonetics, articulatory phonetics, acoustic phonetics, and auditory phonetics. Secondly, the teacher asks the students to learn the places of the speech organs on the vocal tract diagram. Thirdly, students are asked to work with their partner and identify:
1) the role of the human body in the production of speech
2) the role of the vocal tract in the production of speech
3) the organs of speech and their role in the production of speech

Week 2
Aim: To find out about the physiology of speech production and steps in speech production.
Focus: The respiratory mechanism, the larynx and vocal folds, types of phonation, steps in speech production, systems of speech production, and brain areas related with speech production
Level: Upper-intermediate
Skill(s): Summarizing
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.dur.ac.uk/daniel.newman/phon6.pdf
http://www.yorku.ca/eflagg/LING3220/LING3220_2008_Lecture10_Handout.pdf

In this session, the teacher asks the students whether they know about the physiology of speech production or not, what the steps in speech production are, what the systems of speech production are, and what brain areas are related with speech production. Then, the students visit the web sites written above to find out the answers of the questions posed by their teacher. After that, the teacher divides the students into groups consisting of 4-5 members and expects each group to make a summary of the online texts "The physiology of speech production" and "Speech production steps" orally in the classroom. If necessary, the teacher makes clarification as to the meanings of some technical terms used in the online texts.

Week 3
Aim: To identify consonants in American English
Focus: Classifying consonants according to place of articulation, manner of articulation, and voicing. Consonant chart of American English.
Level: Upper-intermediate
Skill(s): Identifying, Classifying, Perceiving, and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.uiowa.edu/~acadtech/phonetics/english/frameset.html
http://www.ic.arizona.edu/~lsp/index.html
http://www.ic.arizona.edu/~lsp/IPA/SSAE.html

In this session, students use the Internet to learn about how consonants are classified according to place of articulation and manner of articulation, how consonants are identified in terms of three main criteria: 1) place of articulation 2) manner of articulation, and 3) voicing, and how consonants are produced in American English. The websites provide students with sound animations, step-by step phonetic descriptions, and video animations. Thus, students listen to the sound animations, read the phonetic descriptions, watch the video animations, and produce the consonants. At the end of the lesson, the teacher asks the students to visit the web site http://www.ic.arizona.edu/~lsp/IPA/SSAE.html to look at the consonant chart of American English. While the students are looking at the consonant chart of the target language on the Internet, the teacher draws the consonant chart of the Turkish language on the whiteboard and tells the students to compare and contrast the consonant chart of American English with that of Turkish. This way, the students can see the similarities and differences between two phonological systems in terms of individual consonants and comment on what consonants in the target language may be problem causing for Turkish learners of English.

Week 4
Aim: To identify vowels in American English
Focus: Classifying vowels according to tongue height, tongue backness, lip rounding, and the tenseness of articulators.Vowel chart of American English.
Level: Upper-intermediate
Skill(s): Identifying, Classifying, Perceiving, and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.uiowa.edu/~acadtech/phonetics/english/frameset.html
http://www.ic.arizona.edu/~lsp/index.html
http://www.ic.arizona.edu/~lsp/IPA/SSAE.html

In this session, students employ the Internet to learn about how vowels are classified according to tongue height, tongue backness, lip rounding, and the tenseness of articulators, how vowels are identified in terms of four basic criteria: 1) tongue height 2) tongue backness 3) lip rounding, and 4) the tenseness of articulators, and how vowels are articulated in American English. The websites provide students with sound animations, step-by step phonetic descriptions, and video animations. Thus, students listen to the sound animations, read the phonetic descriptions, watch the video animations, and articulate the vowels. At the end of the lesson, the teacher asks the students to visit the web site http://www.ic.arizona.edu/~lsp/IPA/SSAE.html to look at the vowel chart of American English. While the students are looking at the American English Vowel Chart on the Internet, the teacher draws the Turkish Vowel Chart on the whiteboard and tells the students to compare and contrast these two charts. This way, the students can notice the similarities and differences between two phonological systems in terms of vowels and make a comment on what vowels in the target language may be problem causing for Turkish learners of English.

Week 5
Aim: To teach /T/, /τ/, and /σ/ sounds in American English
Focus: /T/ x /σ/ and /T/ x /τ/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)

Website(s):
http://www.manythings.org/pp/
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web site http://www.manythings.org/pp/ to practice the minimal pairs for /T/ x /σ/ and /T/ x /τ/ sounds in Lesson 10 and Lesson 22. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 11,12,28,46,65, and 88 by focusing on the correct production of /T/, /σ/, and /τ/ sounds. Finally, in pairs or groups, they are expected to prepare 5 tongue twisters which contain words with /T/, /σ/, and /τ/ sounds and practice saying them.

Week 6
Aim: To teach /ð/, /ʒ/, and /ð/ sounds in American English
Focus: /ð/ x /ʒ/ and /ð/ x /ð/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web site http://www.manythings.org/pp/ to practice the minimal pairs for /ð/ x /ʒ/ and /ð/ x /ð/ sounds in Lesson 6 and Lesson 18. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 169, 228,319, and 402 by concentrating on the correct production of /ð/, /ʒ/, and /ð/ sounds. Finally, in pairs or groups, they are expected to prepare 5 tongue twisters that include words with /ð/, /ʒ/, and /ð/ sounds and practice saying them.

Week 7
Aim: To teach /ɸ/, /ϖ/, and /ω/ sounds in American English
Focus: /ɸ/ x /ϖ/ and /ω/ x /ϖ/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.shiporsheep.com/page27.html
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web site http://www.manythings.org/pp/ to practice the minimal pairs for /ɸ/ x /ϖ/ sounds in Lesson 2 and http://www.shiporsheep.com/page27.html to practice the minimal pairs for /ω/ x /ϖ/ sounds on page 27. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and study the tongue twisters numbered 27,35, and 216 for practicing /ɸ/ x /ϖ/ sounds and those numbered 32,71, and 237 for practicing /ω/ x /ϖ/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters that include words with /ɸ/ x /ϖ/ and /ω/ x /ϖ/ sounds and practice saying them.

Week 8
Aim: To test students' perception and production of the consonant sounds in American English
Focus: American English consonants
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 3 class hrs (50 minutes each)
Website(s):

http://www.learnenglishfeelgood.com/listening/index.html
http://www.tutorpal.com/ipa/organs.html

The midterm exam session consists of three parts:

Part A
The students go to the web site written above to take the listening practice tests numbered 1,2,3,4, and 5 tests designed to measure their perception of the sounds in American English. To take this exam online, the students should:

1. CLICK ON THE "CLICK TO LISTEN" BUTTON FOR EACH QUESTION.
2. LISTEN TO THE WORD(S).
3. CHOOSE THE WORD(S) THAT THEY HEARD FROM THE THREE CHOICES.
4. CLICK ON "CHECK ANSWERS" TO SEE HOW THEY DID.

PART B
The teacher writes several words with /T/, /Δ/, /N/, /ω/, and /ϖ/ sounds on the whiteboard and asks them to pronounce these words by paying attention to correction production of these sounds.

Part C
The teacher gives each student a diagram numbered from 1 to 17, the organs of speech not clearly stated and asks the students to write the speech organs for each number.

Week 9
Aim: To teach /λ/, /ν/, /ρ/, and /N/ in American English
Focus: /λ/ x /ρ/ and /ν/ x /N/ contrasts in Ame
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.shiporsheep.com/page27.html
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web sites http://www.manythings.org/pp/ and http://www.shiporsheep.com/page24.html to practice the minimal pairs for /λ/ x /ρ/ sounds in Lesson 4 and on page 24. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 26 and 337 by focusing on the correct production of /λ/ x /ρ/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters that include words with /λ/ x /ρ/ sounds and practice saying them.
As for /ν/ x /N/ sounds, students visit the web site http://www.manythings.org/pp/ to practice the minimal pairs for /ν/ x /N/ sounds in Lesson 14. They follow the same steps listed above. The students practice the tongue twisters numbered 94,308, and 351 by paying attention to the correct production of /ν/ x /N/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which include words with /ν/ x /N/ sounds and practice saying them.

Week 10
Aim: To teach /ɪ:/, /I/, /ɛI/, and /E/ sounds in American English
Focus: /ɪ:/ x /I/ and /ɛI/ x /E/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.shiporsheep.com
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web sites http://www.manythings.org/pp/ and http://www.shiporsheep to practice the minimal pairs for /ɪ:/ x /I/ sounds in Lesson 23 and on page 1. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 10,18, and 31 by giving importance to the correct production of /ɪ:/ x /I/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which contain words with /ɪ:/ x /I/ sounds and practice saying them.
As for /ɛI/ x /E/ sounds, students visit the web sites http://www.manythings.org/pp/ and http://www.shiporsheep.com to practice the minimal pairs for /ɛI/ x /E/ sounds in Lesson 3 and on page 20. They follow the same steps listed above. The students practice the tongue twisters numbered 36 and 167 by paying attention to the correct production of /ɛI/ x /E/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which include words with /ɛI/ x /E/ sounds and practice saying them.

Week 11
Aim: To teach /E/, /Θ/, /Θ:/ sounds in American English
Focus: /E/ x /Θ/ and /Θ/ x /Θ:/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.shiporsheep.com
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web site http://www.shiporsheep.com to practice the minimal pairs for /E/ x /Θ/ sounds on page 3. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 132 and 388 by giving importance to the correct production of /E/ x /Θ/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which contain words with /E/ x /Θ/ sounds and practice saying them.
As for /Θ/ x /Θ:/ sounds, students visit the web site http://www.shiporsheep.com to practice the minimal pairs for /Θ/ x /Θ:/ sounds on page 5. They follow the same steps listed above. The students practice the tongue twisters numbered 13,63,102 by paying attention to the correct production of /Θ/ x /Θ:/ sounds. Finally, in pairs or groups, they

prepare 5 tongue twisters which include words with /Θ/ x /Θ:/ sounds and practice saying them.

Week 12
Aim: To teach /A:/, /ɷ/, and /Θ/ sounds in American English
Focus: /A:/ x /ɷ/ and /A:/ x /Θ/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.shiporsheep.com
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web sites http://www.manythings.org/pp/ and http://www.shiporsheep.com to practice the minimal pairs for /A:/ x /ɷ/ sounds in Lesson 21 and on page 8. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 157, 222, and 315 by giving importance to the correct production of /A:/ x /ɷ/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which contain words with /A:/ x /ɷ/ sounds and practice saying them.
As for /A:/ x /Θ/ sounds, students visit the web sites http://www.manythings.org/pp/ and http://www.shiporsheep.com to practice the minimal pairs for /A:/ x /Θ/ sounds in Lesson 17 and on page 7. They follow the same steps listed above. The students practice the tongue twisters numbered 50, 86, and 377 by paying attention to the correct production of /A:/ x /Θ/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which include words with /A:/ x /Θ/ sounds and practice saying them.

Week 13
Aim: To teach /Y/, /ʊ:/, /o:/, and /oɷ/ sounds in American English
Focus: /Y/ x /ʊ:/ and /o:/ x /oɷ/ contrasts in AmE
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.manythings.org/pp/
http://www.shiporsheep.com
http://www.uebersetzung.at/twister/en.htm

In this session, students visit the web site http://www.shiporsheep.com to practice the minimal pairs for /Y/ x /ʊ:/ sounds on page 10. Firstly, they listen to each minimal pair. Secondly, they listen to each minimal pair and repeat them. Thirdly, they quiz themselves on each minimal pair. Fourthly, the students access to the web site http://www.uebersetzung.at/twister/en.htm and practice the tongue twisters numbered 51,54, and 313 by giving importance to the correct production of /Y/ x /ʊ:/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which contain words with /Y/ x /ʊ:/ sounds and practice saying them.

As for /o:/ x /oω/ sounds, students visit the web site http://www.fonetiks.org/engsou2am.html to practice the minimal pairs for /o:/ x /↔Y/ sounds on page 2. They follow the same steps listed above. The students practice the tongue twisters numbered 81,147, and 164 by paying attention to the correct production of /o:/ x /↔Y/ sounds. Finally, in pairs or groups, they prepare 5 tongue twisters which include words with /o:/ x /↔Y/ sounds and practice saying them.

Week 14
Aim: To teach phonetic symbols and transcription
Focus: Reading and writing phonetic transcriptions
Level: Upper-intermediate
Skill(s): Transcribing
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.antimoon.com/how/pronunc.-soundsipa.htm
http://www.davidbrett.uniss.it/phonology/transcription.htm

In this session, students visit the web site http://www.antimoon.com/how/pronunc.-soundsipa.htm to learn the phonetic symbols in IPA as well as the sounds that correspond to these symbols. Firstly, they look at the list of phonetic symbols. Secondly, they listen to the transcriptions of words containing these symbols on the internet and repeat them. Thirdly, they quiz themselves on each phonetic symbol . Fourthly, the students access to the web site http://www.davidbrett.uniss.it/phonology/transcription.htm and try to do transcription exercises by giving importance to using the correct phonetic symbols. Finally, in groups, they write ten words on a piece of paper, try to transcribe them by using phonetic symbols, check whether their transcriptions are correct or not by looking the words up in a monolingual dictionary, and read these transcriptions aloud in front of their group members.

Week 15
Aim: To test students' perception and production of the vowel sounds in American English and their transcribing skills
Focus: American English vowels, phonetic transcription
Level: Upper-intermediate
Skill(s): Perceiving and Producing Sounds
Time: 2 class hrs (50 minutes each)
Website(s):
http://www.learnenglishfeelgood.com/listening/index.html
http://oak.cats.ohiou.edu/~cf599196/ling270/phonetics/transcription/.

The final exam session is made up of three parts:

Part A
The students go to the web site written above to take the listening practice tests numbered 6,7,8,9, and 10 designed to measure their perception of the vowel sounds in American English. To take this exam online, the students should: