

*/ˈjuːzɪŋ fəˈnɛːtɪk ˌtʁæˈnˈskɪp.ʃən ɪn klæˈs/**

Phonetic transcription can be a useful tool for teaching or correcting pronunciation in the ESL/EFL classroom.

Introduction

This paper discusses the use of phonetic transcription in the teaching of English as a second or foreign language (ESL/EFL), using the International Phonetic Alphabet (IPA). English is the most widely taught language in the world, and the IPA is the most widely used alphabet for phonetic transcription. However, most of the concepts and techniques described in this paper apply equally to the teaching of other languages and the use of other systems of phonetic transcription.

Phonetic transcription is nothing more than a written record of the sounds of a spoken language. The relationship between phonetic transcription and spoken language is very similar to that between a printed musical score and a musical performance. Transcription separates pronunciation from actual audio recording, and while this might at first seem to be counterproductive, in reality it has many advantages for teaching spoken language and pronunciation.

One might well ask what purpose phonetic transcription serves in English when the written form of English already represents the way the language is spoken (more or less). The advantages of phonetic transcription are several:

- As any student of English can attest, written English is only an approximate representation of the spoken language. Phonetic transcription, in contrast, is an exact representation, without any ambiguity, redundancy, or omission. In a phonetic transcription, every symbol stands for one sound, and one sound only. There are no “silent letters,” nor are there any spoken sounds that are not represented in the transcription.
- A phonetic transcription can be used prescriptively, to show students how a given word or phrase *should* be pronounced. The transcription can represent a precise, standard pronunciation, independent of the individual or regional accent of any teacher or audio recording. It thus allows students to see the correct pronunciation of an English word or phrase without the confusing influence of any anomalies in an instructor’s speech, and provides a reliable, ideal model towards which students can work in their pronunciation, independently of the speech of any human instructor. Dictionaries use phonetic transcription in this way to indicate the “standard” pronunciation of words.
- A phonetic transcription can be used diagnostically, to record and analyze the speech of students. A student can often better understand his errors in pronunciation if he sees them laid out in static visual form. One might say that a picture is worth a thousand words, with transcription being the picture, and words being the spoken language. Students can compare transcriptions of their own speech to that of “model” speech and see and correct their mistakes.
- Phonetic transcription is useful for showing the significant differences between the pronunciation of isolated words in a dictionary and the actual pronunciation of those same words when they are grouped together in connected speech. Students can see why connected speech is more difficult to understand when they are shown the modifications in pronunciation that occur in such speech, and they can learn what modifications to expect and how to recognize them. They can also adopt a more natural-sounding speech themselves by noting the “standard” changes that occur in connected speech and emulating these themselves.

* *Using Phonetic Transcription in Class*

- Much time can be saved in many small ways by using transcription instead of audio recordings or “repeat after me” techniques. The correct pronunciation of a word can be indicated by simply writing its phonetic transcription on the whiteboard, instead of playing it over and over on a fuzzy-sounding cassette or repeating it over and over out loud for students. Features of pronunciation (stress, intonation, division into syllables, etc.) can be explained by showing them in transcriptions rather than trying to explain verbally.

There are other potential advantages to the use of phonetic transcription in the classroom; the above are just a sampling.

Phonetic transcription does have a few drawbacks, the most significant of which is that it requires that both teachers and students be familiar with the IPA (or whatever system of transcription is used). Fortunately, the IPA is easy to learn—despite the daunting appearance it might have at first—because there is an exact one-to-one correspondence between written symbols and spoken sounds. Additionally, many adult ESL/EFL students have already encountered the IPA during their early schooling, either in English classes or in classes targeting their own native languages. And many dictionaries use the IPA, so anyone who has made any significant use of a dictionary has probably seen the IPA, even if he hasn’t fully memorized the entire alphabet.

Some students (and some teachers) are spooked by the IPA and transcription when they are first exposed to it. It’s important to explain the advantages of transcription to them in order to get them past this psychological aversion. Once they learn the IPA (which they can often manage in an hour or two, with a bit of motivation), the advantages of being able to understand and write phonetic transcriptions more than compensate for the time required to learn the alphabet. And since the IPA is international, it can be used with any language without relearning anything—it is not limited only to English. Even Chinese and other languages very different from English can be transcribed with the IPA.

The basics of transcription

Transcribing spoken language phonetically is very straightforward: you simply write the phonetic symbols that correspond to the sounds you hear. It isn’t even necessary that you understand what you hear, as long as you can recognize sounds and transcribe them (of course, if you also understand the language, it’s easier to recognize the sounds that are important). The International Phonetic Alphabet has hundreds of symbols, but fortunately only fifty or so—corresponding to the number of sounds used in English—are necessary for transcription of English.

There are two styles of transcription that you may find useful in ESL/EFL classes. The first is called *narrow* transcription: it’s transcription that attempts to record every single phonological feature (sound) of an utterance, whether it is important to meaning or not. Narrow transcription is useful mainly when you are trying to show students their own foreign accents, or when you are contrasting accents of English or comparing pronunciation of English with pronunciation of other languages.

The second form of transcription is referred to as *broad* transcription. It documents only the sounds that are important to meaning. This type of transcription is also called *phonemic* transcription (we’ll explain phonemes later on in this paper). Broad transcription is used to show students how something should be pronounced. It emphasizes only the sound differences that serve to distinguish meaning; tiny pronunciation features that merely betray a foreign or regional accent are not transcribed. Broad transcription is the type you would use in pronunciation keys, and indeed dictionaries use broad transcription to show the pronunciation of words.

The division between broad and narrow transcriptions is not precise; you can vary your transcription style anywhere between the two extremes as teaching requirements dictate.

For example, in a broad transcription of English speech, you normally would not transcribe the length of vowels, because vowel length is unimportant to meaning in English (changing a vowel from long to short or *vice versa* does not change the meaning of a word in which it occurs). You *would* transcribe vowel length in a *narrow* transcription, however, since the idea is to show exactly how something is pronounced in narrow transcription, including details that don't necessarily influence meaning. Nevertheless, you might still transcribe vowel length even in a broad transcription, if you felt there were a need to do so in order to communicate a specific teaching point to your students. In other words, the amount of detail you include in your transcriptions is entirely up to you, and will usually be a function of the exact purpose for which you are using the transcription in class.

Transcribing with the IPA

The title of this paper is printed in the IPA, and represents a moderately broad transcription of an American English pronunciation. It looks like this:

/ˈjuːzɪŋ fəˈneɪtɪk ˌtɪæˈnˈskɪp.ɪŋ ɪn klæˈs/

The letter-like symbols you see represent individual consonant and vowel sounds; and even if you aren't familiar with the IPA, you can probably guess which sounds most of these symbols represent. The colon-like symbols ‘ː’ and ‘ˑ’ signify that the preceding vowel or consonant has a relatively long duration (the ‘ː’ represents a longer duration than the ‘ˑ’). The apostrophe-like symbols ‘ˈ’ and ‘ˌ’ show the stress to be applied to the following syllable, with the high symbol showing primary stress, and the low symbol showing secondary stress. The period ‘.’ shows a division between syllables (if the latter of the two syllables isn't otherwise marked for stress). Finally, the vertical line beneath the *n* near the end of the transcription marks a syllabic consonant (in other words, the *n* is pronounced simultaneously with a vowel), which is very common for final *n*, *m*, and *l* after a consonant in English.

Since this is a relatively broad transcription, the entire transcription is enclosed in slashes. Narrow transcriptions are usually enclosed in square brackets (‘[’ and ‘]’). This is just a common convention, not a hard-and-fast rule.

As an example, here's a moderately narrow American English transcription of this paragraph:

[æˈz ən əgˈzæˈm.p] | hiːz ə ˈmɑ.də.ət.li ˈneɪ.o əˈmeɪ.ɪ.kən ˈɪŋ,ɪf ˌtɪæˈnˈskɪp.ɪŋ
əv ðɪs ˈpɛ.ɪ.ə.gɹæˈf]

Spaces have no meaning in phonetic transcription. You can use them to separate the transcriptions of individual words for clarity, if you wish. With or without them, the transcription represents exactly the same sounds. In transcriptions of connected speech, often spaces are omitted, in order to emphasize the fact that speech is just a long stream of sound, without clear pauses between words. If you really wish to indicate a pause in speech when transcribing, you can use special symbols for this: the ‘||’ symbol indicates a long pause (such as that at the end of a sentence), and the ‘|’ symbol indicates a short pause (such as that ordinarily indicated by a comma or semicolon in writing).

In addition to marks for stress, pauses, syllable divisions, and vowel and consonant sounds themselves, the IPA also provides diacritical marks to show how some sounds are modified. In English, these marks are not needed for broad transcriptions, but they are sometimes used in narrow transcriptions to show the fine details of pronunciation. For example, both [a] and [ã] represent the sound of the *a* in *father*; but the second transcription shows that the vowel is nasalized. Pronouncing a vowel nasally in English has no effect on meaning and so it is indicated only in very narrow transcriptions; but in a language such as French, nasalization is much more important and is always indicated even in the broadest transcriptions.

Understanding basic speech sounds

As an ESL/EFL teacher, you already have an understanding of the main phonological concepts behind English and other languages, such as the notion of vowels, consonants, stress, and so on. However, we'll review these concepts (and present some rather more esoteric concepts) briefly now, in order to help make the details of phonetic transcription clearer.

Most of human speech is produced by forcing air from the lungs past the vocal cords in the larynx. The vocal cords are held under tension, and when air is forced between them, they vibrate, producing a buzzing noise that travels up the throat and out to the external world through the nose and mouth. The *vocal tract* (the parts of the nose and mouth and throat that participate in the production of speech sounds—see Figure 1) modifies this buzzing sound to produce vowels, consonants, and other features of speech.

Vowels

Vowels are sounds produced by modulating the buzzing noise from the vocal cords as it passes through the mouth and nose. The shape of the vocal tract is changed by changing the position of the tongue, jaw, lips, and *velum* (the mobile fleshy area at the upper rear of the mouth that can open or close the passage between mouth and nose). The sound is not obstructed when vowels are pronounced; instead, the shape of the vocal tract is adjusted, primarily through changes in the shape and position of the tongue, in order to reinforce certain frequencies of sound and absorb others. Many distinct vowels can be produced in this way. The distinctive sound of a particular vowel is called its *quality* or *timbre*: the vowel of the 'a' in the word *father* /'fɑ.ðə/ has a different quality from the vowel of the 'ee' in the word *sheet* /ʃi:t/.

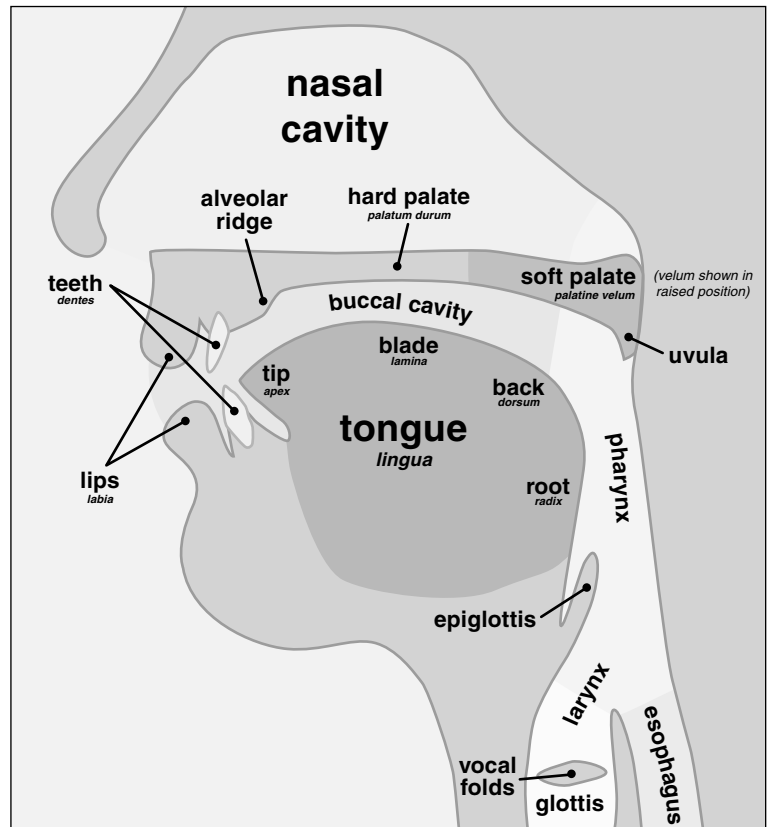


Figure 1 - The human vocal tract

The distinctive sound of a particular vowel is called its *quality* or *timbre*: the vowel of the 'a' in the word *father* /'fɑ.ðə/ has a different quality from the vowel of the 'ee' in the word *sheet* /ʃi:t/.

Since the position of the tongue has the greatest influence on the quality of a vowel, vowels are generally identified by the position of the tongue when they are pronounced. The vowel /i/, heard in *machine*, is considered "front" and "close," because the tongue is raised *close* to the roof of the mouth and is moved towards the *front* of the mouth when this vowel is pronounced. Other vowels are classified as open, back, middle, and so on. The *central* vowel, represented by /ə/, is the vowel produced when the tongue is relaxed and in a neutral, central position; it is present in virtually every language (in English it is often called *schwa*).

Another characteristic of vowels is that they can be *rounded* or *unrounded*, where the rounding in question is the rounding (if any) of the lips when the vowel is pronounced. The IPA has separate vowel symbols for the rounded and unrounded vowels in most tongue positions. In English, most front vowels tend to be unrounded (/i/, /e/, /ɛ/, /æ/), and most back vowels tend to be rounded (/u/,

/o/, /ɔ/), but this is just the idiosyncrasy of English, and some other languages do not follow this pattern.

Vowel quality is often represented graphically by placing the IPA symbols for each vowel on a trapezoid that represents the position of the tongue (see Figure 2, below).

Vowels can also vary in their duration. The duration of a vowel is not important to meaning in English, but English speakers do tend to pronounce certain vowels long and others short. For example, the /ɪ/ in *pin* usually has quite a short duration, whereas the /u/ in *moon* has quite a long duration. In narrow transcriptions, the length of the vowel is often explicitly transcribed, e.g., /muːn/ for *moon*. In broad transcriptions, the length need not be transcribed, because it does not change meaning.

Sometimes two vowels are pronounced in succession in speech. When this occurs, they can either be pronounced distinctly and separately, as in *co-ed* /'kɔ,ɛd/, or they can be blended together, with a smooth transition from the first vowel to the last, as in *tie* /taɪ/. When the vowels are blended, they are called a *diphthong* (if there are two vowels) or a *triphthong* (if there are three). Many languages never blend vowels in this way; but English does, and in fact some diphthongs are extremely important in English, so the important ones are always transcribed.

In the IPA, there are several ways to indicate diphthonged vowels, because linguists tend to think of diphthongs in different ways depending on the context. The choice of how to transcribe them is yours. In this paper, our convention is to use a diacritic below the second vowel that means “part of the same syllable” to indicate that the second vowel flows smoothly from the first: compare *now* /naʊ/, which contains two vowels combined into a diphthong, with *Noël* /,no'ɛl/, which contains two vowels pronounced separately.

The sound of a vowel can reach the outside world either through the mouth or the nose, or through a combination of both. A vowel that exits primarily through the mouth is said to be *oral*, and a vowel that exists primarily through the nose is said to be *nasal*. In the IPA, a vowel is oral unless it is marked with a special diacritic indicating nasal pronunciation: thus, /a/ is an oral vowel, and /ã/ is its nasal equivalent. The difference between nasal and oral vowels is not important in English, so it usually isn't transcribed, except in the narrowest transcriptions. Some languages, such as Portuguese, Vietnamese, and French, use nasality to change the meaning of a word, and in these languages a vowel is always transcribed as nasal if it is pronounced that way, even in broad transcriptions.

There are other modifications of vowels that are possible. They aren't important in English, and we leave the exploration of these as an exercise for the interested reader. The IPA provides special diacritics for these modifications, if required.

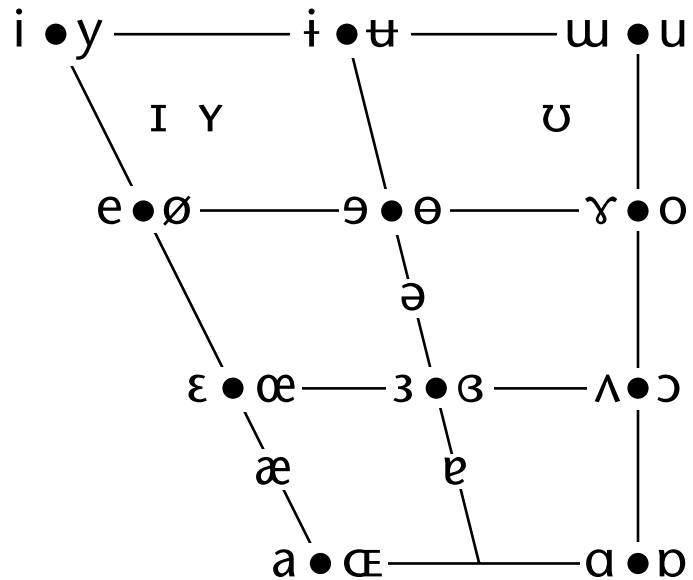


Figure 2 - Vowel trapezoid

This diagram shows the relationship between vowels (as represented by IPA symbols) and tongue and lip positions. Moving clockwise from the upper right, the tongue positions are close (high) and back, open (low) and back, open and front, and close and front. When two IPA symbols are shown for a given vowel, the one on the right represents a rounded vowel, and the one on the left represents an unrounded vowel.

Consonants

Consonants may be broadly described as movements of the vocal tract that obstruct or restrict the flow of sound or air. In most languages, consonants alternate with vowels in speech, although it's not unusual to hear several consonants (or several vowels) in succession in many languages (including English). Consonants typically produce sound by either completely obstructing the flow of air or sound from a preceding or following vowel, or by restricting the flow of sound or air so much that it becomes audible.

Consonants are characterized by the parts of the vocal tract that are used to produce them (see Figure 3). For example, the sound of *p* in English (represented as /p/ in the IPA) is produced by holding the lips together to block air and sound, and then suddenly opening them; it is therefore called a *bilabial plosive* consonant—*bilabial* meaning “with both lips,” and *plosive* meaning “allowing air and sound to pop outward.” Consonants can be produced in a bewildering variety of

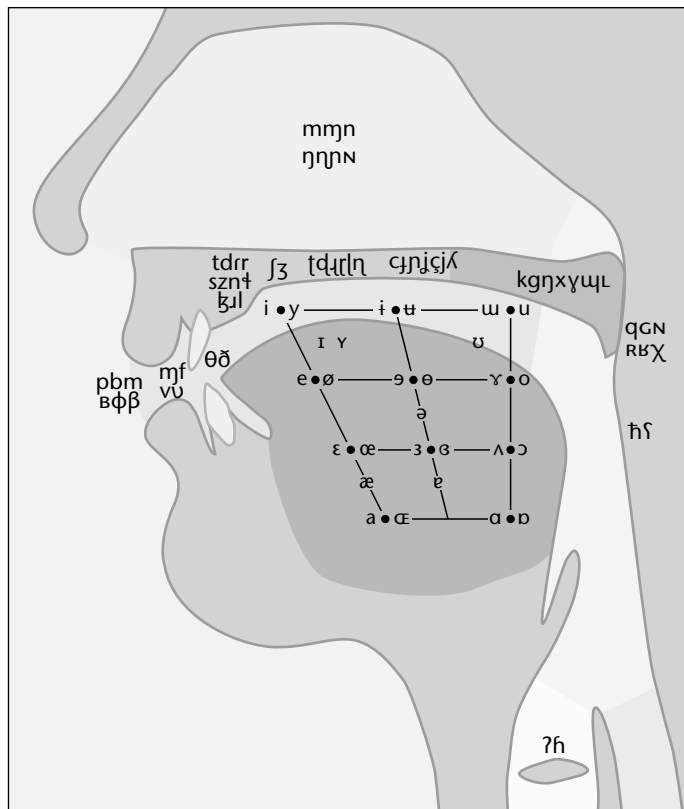


Figure 3 - IPA articulation points

This diagram superimposes the vowel trapezoid with IPA vowel symbols onto the anatomical features of the vocal tract. Articulation points of various IPA consonant symbols are also shown.

Some consonants can be pronounced one after the other; these are called *blends*, and there are many of them in English. One common combination is /d/ with /ʒ/, which occurs twice in the word *judge* /dʒʌdʒ/. Another common combination is /t/ with /ʃ/, as in *choose* /tʃu:z/. The consonants are sometimes so closely linked that they sound like a single, new consonant; when this happens, the blend may be marked in the IPA by a special curved linking symbol above or below the consonants (as we have done here).

Fricative consonants are consonants that involve restricting the flow of air through the mouth so dramatically that it makes a hissing noise as it passes. Fricatives that are common in English include /f/ and /v/—as well as /θ/ and /ð/, dental fricatives represented by *th* in writing that are the bane of many ESL/EFL students. Fricatives that are very restrictive produce a high-frequency hiss and are sometimes called *sibilants*; the common sound /s/ is in this category.

ways, but most languages, including English, use only a handful of all the possible articulations. The IPA uses a separate symbol for each type of articulation, since each of them produces a different consonant.

Consonants can also be considered *voiced* or *unvoiced*. A voiced consonant is one that is pronounced while the vocal cords are vibrating. An unvoiced consonant is one that is pronounced while the vocal cords are motionless. Many consonants are distinguished only by voicing; that is, they are distinguished only by the presence or absence of vibration in the vocal cords. For example, /p/ and /b/ are articulated in the same way, but the first is unvoiced, and the second is voiced, so they are separate consonants. The IPA uses separate symbols for voiced and unvoiced consonants. In many languages, including English, the difference between a voiced and an unvoiced consonant is important to meaning (*pan* is not the same as *ban*), and should always be transcribed.

One other type of consonant that bears mentioning is the *rhotic* consonant—also called the “*r-sound*.” Rhotic consonants come in many different types, but virtually all languages have one (and often only one) rhotic. In English, the rhotic consonant is normally pronounced by curving the tip of the tongue slightly backward and holding it just behind the alveolar ridge (the bony ridge at the top of the mouth just behind the upper teeth); this is quite a rare way to pronounce a rhotic compared to most other languages, and it goes by the formidable name of a *postalveolar approximant*. The IPA uses the symbol /ɹ/ for this rhotic consonant. Other languages have very different rhotics. Spanish uses both a *trill* (wherein the tip of the tongue vibrates against the alveolar ridge) and a *flap* (where in the tongue simply taps the alveolar ridge), represented by /r/ and /ɾ/, respectively. French uses a *uvular fricative*, represented by /ʁ/. The list goes on and on. Using the correct symbol to transcribe rhotics is very important in ESL/EFL, because students must understand *which* rhotic is correct for English, as compared with their own languages.

There are many other types of consonants: palatal, pharyngeal, glottal, ejective, and so on. They are too numerous to describe here, and no language uses them all. Of the sixty or so basic consonants for which IPA symbols exist, only about two dozen are used in English.

Intonation

The IPA makes provisions for transcribing the *intonation* of speech, meaning changes in pitch, loudness, and so on. In English, the only type of intonation that directly affects meaning is syllabic stress, but that is very important. The IPA uses two symbols for stress, one indicating primary stress and the other indicating secondary stress. The symbols are placed before the syllables they affect, as in /kən,ˌfɛd.əˈe.ʃn/ for *confederation* (American pronunciation, with primary stress on the third syllable and secondary stress on the second syllable). Stressed syllables are pronounced more clearly and more loudly than other syllables, and for a longer time. Some languages don’t use syllabic stress, and for these languages it is not transcribed; but English uses stress to distinguish meaning, and so it is almost always marked in phonetic transcriptions (especially transcriptions of isolated words, as in dictionaries).

Other aspects of intonation, such as pitch and loudness, are not very important in English and are almost never transcribed. However, the IPA does provide symbols for them. It also provides symbols for tones, which are useless in English but essential for languages such as Chinese.

The difference between meaning and sound

A key concept that applies to English and all other languages is that of *phonemes*. Understanding what phonemes are is vital to using phonetic transcription correctly.

Every language has a set of *phones*. Phones are sounds that can be consistently and individually distinguished in a spoken language, whether they mean anything or not. The number of phones in a language can be very large, but only a few of those phones have any influence on the actual meaning of speech. The phones that serve to distinguish between meanings are called *phonemes*, and they are much fewer in number than the complete set of phones. English has about 42 phonemes. The important thing to remember is this: In order to understand a language and be understood when speaking that language, a student *must* master all the phonemes of the language. The other phones don’t matter (unless the student wants to rid herself of a “foreign” accent), but the phonemes are vital and must receive priority in language instruction.

To state the definition of a phoneme another way, whenever any two sounds in a language are contrasted with each other to represent a difference in meaning, they are said to be *phonemes*. For example, the difference between the vowel /ɪ/ in *pin* and the vowel /æ/ in *pan* mark a difference in meaning between the two words, and so these vowel sounds are *phonemes*. And so, by extension, any difference in pronunciation that serves to distinguish meaning is said to be *phonemic*. The more frequently two sounds are contrasted in a language to distinguish meaning, the more phone-

mic they are. If two sounds are simply characteristic of a language, but are never used to distinguish one meaning from another, they are *phones*, but they are not *phonemes*.

Vowel quality in English is phonemic; vowel length and nasality are not. In other words, the quality of a vowel (as in *pin* compared to *pan*, for example) serves to distinguish meaning in English, but the duration of a vowel does not. And it doesn't matter in English whether a vowel is nasal or oral—nasality or a lack thereof has no influence on meaning. So nasality isn't phonemic, either. This means that ordinarily you won't transcribe vowel length or nasality in broad transcriptions.

An important consequence of the above is that you *must* teach the differences in vowel quality in English, but you don't have to teach differences in vowel length or nasality. Students must be able to recognize and produce differences in vowel quality, or they won't be able to communicate, because these characteristics are phonemic. However, they need not make distinctions in the length or nasality of vowels, because these have no influence on meaning. (The only exceptions are students who want to eliminate a foreign accent—they must master *all* the phones of English, not just the phonemic ones.)

The same principle applies to all phonemes of English. In transcription, you always transcribe phonemes, because the transcription is incomprehensible without them. You may or may not choose to transcribe other phones that are not phonemes, depending on the level of detail you want in the transcription; but you cannot omit the phonemes. The broadest transcriptions contain only phonemes (and are thus often called phonemic transcriptions); the narrowest transcriptions contain the phonemes ... plus everything else.

In every language, some phonemes are more important than others, because they occur more frequently in contrasting positions that serve to distinguish meaning. The most important phonemes (or rather the most important contrasts between phonemes) should be taught first. In English, for example, far more words are distinguished by the difference between /ɪ/ and /i/ than are distinguished by the difference between /θ/ and /ð/,* so the phonemes /ɪ/ and /i/ should be taught first.

In some cases, a given phoneme may have several slightly different pronunciations, depending on where it occurs. When several different phones are used in speech to represent the same phoneme, they are called *allophones* of the phoneme. For example, [p] and [p^h] are allophones of /p/ in English; they are actually two slightly different sounds, but they represent the same phoneme. Most English speakers will pronounce /p/ as [p^h] at the start of a word like *pop*, but will pronounce it as [p] in a word like *spy*. Similarly, Americans will often pronounce the /t/ of *butter* as [ɾ]; the meaning is not changed, but [ɾ] (which sounds like the *r* in Spanish *pero*) becomes an allophone of the phoneme /t/.

It's not necessary to teach ESL students to pronounce different allophones of the same phoneme unless they wish to eliminate a foreign accent. Since the allophones of a phoneme are interchangeable, a student can pronounce any allophone of a given phoneme and still be understood (although she may still have a noticeable accent). However, it's often useful to teach ESL students to *recognize* different allophones of the same phoneme, so that they will not mistake the different allophones for independent phonemes. Students approaching a language for the first time have no idea which phones in the language are phonemic and which are not, nor do they know which phones are allophones of the same phoneme. It's up to their language instructor to teach them the distinctions. Clearly, phonetic transcription can help a great deal here.

Errors in transcription

Although the IPA is used around the world for thousands of different languages, it is not always used correctly. When you use the IPA to teach a student English, it is important to use the IPA in

* An example of one of the rare contrasts between /θ/ and /ð/ can be heard in *either* /'i.ðɜ:/ versus *ether* /'i.θɜ:/—although even that disappears in some pronunciation of English, depending on how one pronounces *either*.

the most standard way possible in order to avoid conflict with the transcription of sounds in her own native language and/or the use of the IPA that she may have already learned in other environments.

Unfortunately, many users of the IPA in English—particularly those who are native speakers—have developed the habit of misusing some IPA symbols in a characteristic way that can seriously confuse students from other environments if they are exposed to it. Some of these errors are attributable to the difficulty of typesetting the unusual symbols of the IPA (a difficulty largely eliminated today by computers); others are due to a fundamental misunderstanding of English phonetics. We will cite some of the most egregious examples of misuse below.

A very common mistake in IPA transcription of English is to use the IPA symbol /e/ for the vowel sound in *men*. The correct symbol is /ɛ/. The symbol /e/ in the IPA represents the vowel sound in the French word *blé* /ble/, and that is very different from the vowel sound in *men*. Monolingual English speakers transcribing for other monolingual English speakers frequently make this mistake—perhaps because the symbol /e/ is a lot easier to typeset than /ɛ/—but it remains an error, nevertheless. It becomes a serious problem if your students are familiar with the real IPA and they start to pronounce *men* like *main* because they see the former transcribed as /men/ instead of /mɛn/.

Another common mistake in transcription of English concerns the vowels /ɪ/ and /i/. Many English-speaking users of the IPA incorrectly transcribe these vowels as /i/ and /i:/. The latter error is not too serious, since the correct symbol is still being used to designate the quality of the vowel (which is the important part from the standpoint of meaning), but the length indication is unnecessary—vowel length is not phonemic in English. The former error is much more serious, as it will cause ESL students to pronounce *slip* and *sleep* (amongst many other minimal pairs) in a phonemically identical way.

Finally, it is common in English transcriptions (and in transcriptions of many other languages) to use the IPA symbol /r/ for the rhotic consonant, because it is easier from a typesetting standpoint. However, strictly speaking, the /r/ symbol in the IPA designates *only* the trilled r-sound that one hears in Spanish *perro*. When one is teaching English to monolingual native English speakers, this is not very important, since they aren't going to be thinking about Spanish or other languages, anyway; but when one is teaching English to native speakers of other languages, it's vitally important to use the correct IPA symbol for the rhotic consonant so that students will know *which* rhotic sound is the correct one for English. The correct symbol in the IPA for the standard English rhotic consonant is /ɹ/ (designating a postalveolar approximant, which is the way the vast majority of English speakers pronounce the r-sound), and this is the symbol you should use in order to avoid confusion.

When in doubt about the proper way to transcribe English sounds, your best reference is the official *Handbook of the IPA*, which specifies the correct symbols and marks to transcribe English, and includes examples of actual transcription. It's also possible to download actual audio recordings of the transcriptions in the Handbook from the Web.

Preparing Classroom Materials Using the IPA

If you are preparing handwritten classroom materials, using the International Phonetic Alphabet poses no particular problems, since you can write all the necessary symbols by hand. If you are using a computer to prepare your classroom materials, however, there are some special considerations you must keep in mind in order to use IPA symbols in your documents.

There are several options for including IPA transcriptions in documents prepared on a computer. The first and most straightforward option is to leave spaces for the IPA text in the document and then print it and write the IPA symbols in by hand; but this method is awkward and time-con-

suming, and produces very unattractive results. The second option is to use appropriate typefaces and fonts in a document that include the IPA symbols. This latter method produces very attractive results and is potentially very efficient, but it does require special fonts in most cases, and actually typing the IPA symbols can be rather slow, since many of them are not directly accessible from a computer keyboard and must be typed in special ways.

If you are using a computer that supports Unicode and your computer has one or more Unicode fonts installed with the IPA extensions, you can simply type the IPA symbols you need into your document. Versions of Microsoft Windows beginning with Windows NT support Unicode, as do the most recent versions of Microsoft Word, and Adobe's InDesign professional publishing software. In addition, most recent versions of Windows come equipped with at least one Unicode font, such as Lucida Sans Unicode, that includes the IPA symbols. Recent versions of Mac software also include support for Unicode.

If your computer does not support Unicode, or if the software you are using to prepare your materials doesn't support Unicode, you can use special fonts to include IPA symbols in your documents. You can find an extensive list of available IPA fonts (both commercial and freeware) at the IPA's official Web site:

<http://www2.arts.gla.ac.uk/IPA/ipa.html>

Look under "Fonts" in the table of contents on the home page. IPA fonts vary in the number of symbols they include and the ease with which symbols from the font can be typed on the keyboard (some fonts require more bizarre keystroke combinations than others).

The paper you are reading now was prepared in Quark XPress, a professional typesetting program, using the commercial IPA typefaces Stone® Sans Phonetic IPA and Times™ Phonetic IPA, published by International Typeface Corporation and Linotype GmbH, respectively.

Conclusion

ESL/EFL teachers are often reluctant to use phonetic transcription because they are unfamiliar with it, and the odd appearance of the IPA makes it seem complicated to them. However, the International Phonetic Alphabet is very easy to learn, and in many situations the use of phonetic transcription can save time and facilitate the teaching of concepts related to the spoken language. If you haven't previously used phonetic transcription, it takes only a few hours to learn the IPA and a few more to understand the basic concepts, which you'll rapidly gain back as time and energy saved in teaching your students.

Appendix I

Table of English Phonemes

I - Vowels

Monophthongs

/ɑ/	father	/ɛ/	ten
/i/	seen	/ɪ/	sin
/o/	tone	/u/	tune
/e/	lane	/ʊ/	good
/ɒ/	law	/ə/	sum
/æ/	pan		

Diphthongs

/aʊ/	now	/ɔɪ/	toy
/aɪ/	sigh		

II - Consonants

/p/	pin	/b/	bin
/k/	kin	/g/	grin
/s/	sin	/z/	zinc
/f/	fan	/v/	village
/t/	tin	/d/	din
/ʃ/	shin	/ʒ/	measure
/w/	when	/h/	hen
/l/	linen	/m/	mile
/n/	none	/j/	yellow
/r/	right	/ŋ/	ring
/θ/	thin	/ð/	then

