

# CHAPTER 5

## THE SYLLABLE

In general, when we study speech sounds, we discuss the ‘minimal contrastive unit’ of sound called the *phoneme*. Different sounds or phonemes can be arranged to form various meaningful words. Such words may have only one syllable or more than one syllable. Thus, a syllable is a unit of sound that contains one vowel sound. Although a syllable has only one vowel sound, it may contain one phoneme or more than one phoneme. In this chapter, we will discuss syllables, syllable structures and consonant clusters respectively.

### What is a syllable?

“A syllable is a phonological unit consisting of a vowel or other unit that can be pronounced in isolation, either alone or accompanied by one or more less sonorous units, e.g. [bʌŋ] and [tɪŋ] are successive syllables in *bunting*.” (Matthews, 1997: 366)

“A syllable refers to a unit of speech made up a vowel which can be preceded and /or followed by a consonant or a series of consonants.” (Busaba Kanoksilapatham, 2007: 63)

“Phones can be combined into larger units called syllables.” (Sumon Ariyapititpun, 2004: 85)

This means the units into which words are divided while pronouncing them are called ‘syllables’.

### Syllable structure

The syllable is a unit of pronunciation that consists of a vowel alone or of a vowel with one or more consonants. A vowel is the ‘*nucleus*’ or center and a consonant is a ‘*marginal element*’ in the syllable. The consonant at the beginning of a syllable is called ‘*releasing*’ consonant and at end of a syllable is called ‘*arresting*’

consonant. The marginal elements are not obligatory. These may occur either before the nucleus or after the nucleus, or some before and after the nucleus.

The word, for example, “**pick**” /pik/ consists of one syllable which consists of two marginal elements /p/ a releasing consonant and /k/ an arresting consonant and of a nucleus /i/, which is a vowel. Now if we represent the vowel in this syllable by the symbol V and the consonant by the symbol C, the syllable *pick* /pik/ will be represented by CVC, in which V is the nucleus element, and C’s are the marginal elements.

It is also possible to have a cluster of two or three consonants before and / or after the nucleus. For example in “**school**” /sku:l/, we have the cluster of two consonants/s/ and /k/ which is the first marginal element, which be represented by CCVC. Some syllables are made up of the nucleus alone, for example, “**eye**” or “**I**” /ai/, which be represented by V.

“The terminology of syllable (Crystal, 1980: 339) could be used as follows: 1) the opening segment of a syllable = the **onset (releasing)**; 2) the closing segment of the syllable = the **coda (arresting)**; and 3) the central segment of the syllable = the **nucleus or center.**”

**Example:** in the word: **cat**

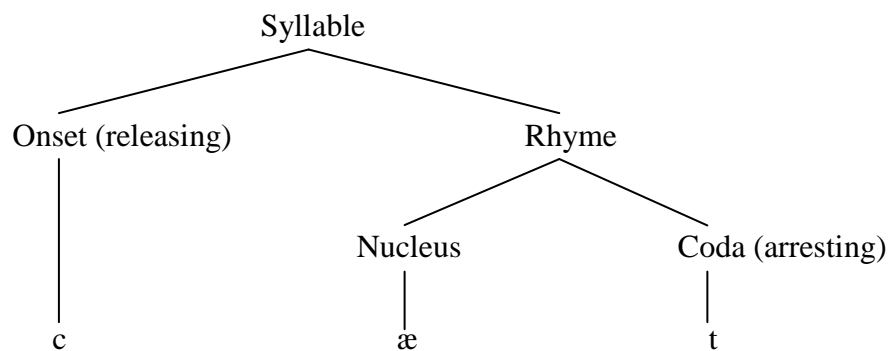


Figure 5 An example of Syllable structure (Matthews, 1997: 366)

### Syllabic consonants

We have seen that the vowel is the nucleus of a syllable, and the consonant occupies a marginal place in its structure. It might be argued that this is not always the case. There are syllables, of course, in which the nuclear place is occupied by certain consonants, but then, these consonants function like vowels.

Let us look at the English words *button* /'bʊtʌn/, *bottle* /'bɒtl/, and *rhythm* /'rɪðm/. It is generally agreed that each of these words has two syllables, and not one. Their syllable division is shown as /'bʊ-tʌn/, /'bɒ-tl/, and /'rɪ-ðm/. Here /-tʌn/, /-tl/, and /-ðm/ constitute independent syllables by themselves without any intervening vowel. In such cases, the sounds /n/, /l/, and /m/ are said to form the nucleus, and are called **syllabic** consonants, that is, they represent the vowel element in the syllable structure.

Additional examples are: *prism* /'prɪ.zm/, *sudden* /'sʌ.dn/, *table* /'teɪ.bl/, and *subtle* /'sʌ.tl/. When /m/, /n/, and /l/ function as syllabic consonants, they are generally marked, in a slightly narrower transcription, with the diacritic [ . ] as in ['prɪ.zm], ['sʌ.dn] and ['sʌ.tl].

### Phonotactic patterns of English syllable

In helping with representing the syllable structure, we use the symbols **V** standing for the vowel and **C** for the consonant element, respectively. Analyzed below are the possible phonotactic patterns of English syllable that we have in English.

1. V (CCC)	Pattern	Examples
	<b>V</b>	I /aɪ/ heir /eə/ a /ə/ or /eɪ/
	<b>VC</b>	an /æn/ all /ɔ:l/ ice /aɪs/
	<b>VCC</b>	ask /ɑ:sk/ and /ænd/ ink /ɪŋk/
	<b>VCCC</b>	asked /ɑ:skt/ ants /ænts/ ends /endz/

<b>2. C(CC)V</b>	<b>Pattern</b>	<b>Examples</b>	
	<b>CV</b>	go /gəʊ/ no /nəʊ/ law /lɔː/	
	<b>CCV</b>	try /traɪ/ play /pleɪ/ crow /krəʊ/	
	<b>CCCV</b>	spray /spreɪ/ straw /strɔː/ screw /skruː/	
<b>3. C(CC)VC(CC) Pattern</b>	<b>CVC</b>	cat /kæt/ boss /bɒs/ girl /gɜːl/	
	<b>CVCC</b>	test /test/ tent /tent/ once /wʌns/	
	<b>CVCCC</b>	masks /mɑːks/ text /tekst/ rests /rests/	
	<b>CCVCC</b>	snacks /snæks/ brand /brænd/ spans /spænz/	
	<b>CCVCCC</b>	trunks /trʌŋks/ brands /brændz/ stamps /stæmps/	

<b>Pattern</b>	<b>Examples</b>
<b>CCVCCCC</b>	glimpsed /gɪmpst/ twelfths /twelfθs/
<b>CCCVC</b>	street /stri:t/ stream /stri:m/ spread /spred/
<b>CCCVCC</b>	strange /streɪndʒ/ screamed /skri:md/ strand /strænd/
<b>CCCVCCC</b>	sprints /sprɪnts/ strands /strænds/ strengths /streŋθs/

## **Consonant clusters**

A group of consonants without intervening vowels is called a ‘consonant cluster’ (also called a ‘consonant blend’). In English, for example, the groups /st/ and /mps/ are consonant clusters in the word *stamps*. A consonant cluster comes at the beginning of a word is an *initial* consonant cluster and a consonant cluster comes at the end of a word is a *final* consonant cluster.

### **1. Initial consonant clusters**

#### 1.1 The initial consonant clusters + /r/ or /l/.

The initial clusters of two consonant sounds start with plosive sounds or fricative sounds followed by /r/ or /l/. Let’s follow the examples below.

##### 1.1.1 Voiceless plosives + /r/ or /l/

1) /tr-/	: tree	train
2) /pr-/	: price	praise
3) /kr-/	: cry	crowd
4) /pl-/	: please	plain
5) /kl-/	: clock	clever

## 1.1.2 Voiced plosive + /r/ or /l/

1) /dr-/	: drag	drive
2) /br-/	: brown	bread
3) /gr-/	: grow	great
4) /bl-/	: black	blame
5) /gl-/	: glow	glorious

## 1.1.3 Voiceless fricatives + /r/ or /l/

1) /θr-/	: three	thread
2) /fr-/	: friend	frame
3) /fl-/	: flame	flower

## 1.2 The initial consonant clusters + /w/ or /j/

The initial clusters of two consonant sounds start with plosive sounds or fricative sounds or nasal sounds followed by /w/ or /j/. Let's follow the examples below.

## 1.2.1 Voiceless plosives + /w/ or /j/

1) /tw-/	: twin	twist
2) /kw-/	: quick	queen
3) /pj-/	: pure	purify
4) /tj-/	: tune	tube
5) /kj-/	: cure	cute

## 1.2.2 Voiced plosive + /w/ or /j/

1) /dw-/	: dwell	dwindle
2) /gw-/	: Gwen	
3) /bj-/	: beauty	beautiful
4) /dj-/	: during	duration
5) /gj-/	: gewgaw	

## 1.2.3 Voiceless fricatives + /w/ or /j/

1) /θw-/	:	thwart	
2) /hw-/*	:	what	when
3) /fj-/	:	few	future
4) /θj-/	:	thew	-
5) /hj-/	:	humid	human

\*It is noted that some American people (and British people) pronounce the words '**what**' and '**when**' without cluster sounds, e.g. what /wɒt/ and when/wen/.

## 1.2.4 Voiced fricatives + /w/ or /j/

/vj-/	:	view
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## 1.2.5 Nasals + /j/

1) /mj-/	:	mute	music
2) /nj-/	:	new	dew

## 1.3 The initial consonant clusters starting with /s/

The initial clusters of two consonant sounds start with /s/ followed by voiceless plosive, voiceless fricative, nasal, lateral or semi-vowel sounds and voiceless plosive sounds followed by /r/, /l/, /w/ or /j/. Let's follow the examples below.

## 1.3.1 /s/ + Voiceless plosives

1) /sp-/	:	spend	spare	spirit
2) /st-/	:	stay	stand	stout
3) /sk-/	:	sky	skill	scare

## 1.3.2 /s/ + Voiceless fricatives

1) /sf-/	:	sphere
2) /sθ-/	:	esthetic

## 1.3.3 /s/ + Nasals

1) /sm-/	:	small	smart
2) /sn-/	:	snap	sneer

## 1.3.4 /s/ + Semi-vowels

1) /sw-/	:	swear	swell
2) /sj-/	:	suit	super

## 1.3.5 /s/ + Semi-vowels

/sw-/	: swear	swell
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## 1.3.6 /s/ + Lateral

/sl-/	: slay	slow
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## 1.3.7 /s/ + Voiceless plosives + /r/

1) /spr-/	: spring	sprout	spray
2) /str-/	: strong	string	strand
3) /skr-/	: screw	scrap	screen

## 1.3.8 /s/ + Voiceless plosives + /l/

1) /spl-/	: split	splash	spleen
2) /skl-/	: sclerosis		

## 1.3.9 /s/ + Voiceless plosives + /w/

/skw-/	: square	squid	squir
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## 1.3.10 /s/ + Voiceless plosives + /j/

1) /spj-/	: spew	spume	sputum
2) /stj-/	: stew	studio	steward
3) /skj-/	: skew	scuba	skua

**2. Final consonant clusters**

The final consonant clusters are not necessarily the same as the initial consonant clusters. The grammatical endings make many more final consonant clusters such as –s endings, -ed endings and so on.

1.1 The final clusters of consonant sounds consist of the final consonant sounds + -s ending or -ed ending.

Final consonant sounds + -s endings		or	+ -ed endings	
1.1.1 /-p/	: step	/-ps/	: steps	/-pt/ : stepped
1.1.2 /-b/	: rob	/-bs/	: robs	/-bd/ : robbed
1.1.3 /-t/	: hat	/-ts/	: hats	— —
1.1.4 /-d/	: bed	/-dz/	: beds	— —
1.1.5 /-k/	: look	/-ks/	: looks	/-kt/ : looked
1.1.6 /-g/	: beg	/-gz/	: begs	/-gd/ : begged



1.1.7	/-s/	: pass	—	—	/-s t/	: passed
1.1.8	/-z/	: buzz	—	—	/-z d/	: buzzed
1.1.9	/-ʃ/	: mash	—	—	/-ʃ t/	: mashed
1.1.10	/-ʒ/	: rouge	—	—	/-ʒ d/	: rouged
1.1.11	/-tʃ/	: match	—	—	/-t ʃ t/	: matched
1.1.12	/-dʒ/	: wedge	—	—	/-dʒ d/	: wedged
1.1.13	/-m/	: time	/-mz/	: times	/-m d/	: timed
1.1.14	/-n/	: ban	/-nz/	: bans	/-n d/	: banned
1.1.15	/ŋ/	: belong	/-ŋz/	: belongs	/ŋ d-/	: belonged
1.1.16	/-f/	: laugh	/-fs/	: laughs	/-f t/	: laughed
1.1.17	/-v/	: move	/-vz/	: moves	/-v d/	: moved
1.1.18	/-l/	: call	/-lz/	: calls	/-l d/	: called
1.1.19	/-r/(AmE):	sneer	/-r/	: sneers	/-r d/	: sneered

1.2 The final clusters of consonant sounds are /l/ + other consonant sounds + -s endings or -ed endings.

		/l/ + other consonant sounds + -s endings	or	+ -ed endings
1.2.1	/-lp/	: help	/-lps/	: helps /-lp t/ : helped
1.2.2	/-lb/	: bulb	/-lbz/	: bulbs — —
1.2.3	/-lt/	: belt	/-lts/	: belts — —
1.2.4	/-lk/	: milk	/-lks/	: milks /-lk t/ : milked
1.2.5	/-ld/	: hold	/-ldz/	: holds — —
1.2.6	/-lv/	: solve	/-lvz/	: solves /-lv d/ : solved
1.2.7	/-lm/	: film	/-lmz/	: films /-lm d/ : filmed
1.2.8	/-ln/	: kiln	/-lnz/	: kilns — —
1.2.9	/-ldʒ/	: bulge	— —	/-ldʒ d/ : bulged
1.2.10	/-ls	: pulse	— —	/-ls t/ : pulsed
1.2.11	/-lf/	: wolf	/-lvz/	: wolves

1.3 The final clusters of consonant sounds are /m/, /n/ or /ŋ/ + other consonant sounds + -s endings or -ed endings.

		/m/, /n/ or /ŋ/ + other consonant sounds + -s endings or -ed endings
1.3.1	/-mp/	: stamp /-mps/ : stamps /-mp t/ : stamped

1.3.2	/-mf/	: triumph	/-mfs/: triumphs	/-mft/: triumphed
1.3.3	/-nt/	: want	/-nts/: wants	— —
1.3.4	/-nd/	: hand	/-ndz/: hands	— —
1.3.5	/-nθ/	: month	/-nθs/: months	— —
1.3.6	/-ns/	: dance	— —	/-nst/: danced
1.3.7	/-nz/	: bronze	— —	/-nzd/: bronzed
1.3.8	/-ntʃ/	: lunch	— —	/-ntʃt/: lunched
1.3.9	/-ndʒ/	: change	— —	/-ndʒd/: changed
1.3.10	/-ŋk/	: thank	/-ŋks/: thanks	/-ŋkt/: thanked

1.4 The final clusters of consonant sounds are /m/, /n/ or /ŋ/ + and in turn followed by /s/ or /t/ + -s endings or -ed endings.

/m/, /n/ or /ŋ/ + /s/ or /t/ + -s endings          or          + -ed endings.

1.4.1	/-mps/	: glimpse	— —	/-mpt/: glimpsed
1.4.2	/-mpt/	: tempt	/-mpts/: tempts	— —
1.4.3	/-ŋks/	: jinx	— —	/-ŋkst/: jinxed
1.4.4	/-ŋkt/	: instinct	/-ŋkts/: instincts	— —

1.5 The final clusters of consonant sounds contain the final consonant sounds: /-s/, /-z/, /-t/ or /-d/ + -s endings or -ed endings.

/-s/, /-z/, /-t/ or /-d/ + -s endings          or          + -ed endings.

1.5.1	/-(r)ps/	: corpse	— —	— —
1.5.2	/-(r)ts/	: quartz*	— —	— —
1.5.3	/-(r)ks/	: Marx	— —	— —
1.5.4	/-ks/	: box	— —	/-kst/: boxed
1.5.5	/-lts/	: waltz*	— —	/-ltst/: waltzed
1.5.6	/-lks/	: Wilkes	— —	— —
1.5.7	/-ps/	: lapse	— —	/-pst/: lapsed
1.5.8	/-(r)lz/	: Charles	— —	— —
1.5.9	/-(r)pt/	: excerpt	/-(r)pts/: excerpts	— —
1.5.10	/-(r)st/	: burst	/-(r)sts/: bursts	— —
1.5.11	/-(r)nt/	: aren't	— —	— —

\* It is noted that the words as in waltz, quartz spelling with z are pronounced as /s/.

1.5.12 /-ft/ : lift /-fts/ : lifts — —

1.5.13 /-(r)ld : world /-(r)ldz/ : worlds — —

1.6 The final clusters of consonant sounds are /-s/ + other consonant sounds + -s endings or -ed endings.

1.6.1 /-sp/ : clasp /-sps/ : clasps /-spt/ : clasped

1.6.2 /-st/ : test /-sts/ : tests — —

1.6.3 /-sk/ : risk /-skʃ/ : risks /-skt/ : risked

1.7 The final clusters of consonant sounds are composed of adjective forms + suffix /-θ/ (th) to make noun forms and in turn followed by -s endings.

Adjectives	Singular nouns	plural nouns
1.7.1 deep	/-pθ/ : depth	/-pθs/ : depths
1.7.2 wide	/-dθ/ : width	/-dθs/ : widths
1.7.3 long	/-ŋθ/ : length	/-ŋθs/ : lengths
1.7.4 warm	/-(r)mθ/ : warmth	— —
1.7.5 strong	/-ŋθ/ : strength	/-ŋθs/ : strengths

1.8 The final clusters of consonant sounds are composed of cardinal numbers + suffix /-θ/ (th) to make ordinal number.

Cardinal + suffix /θ/ (th)	= Ordinal	+ -s endings
1.8.1 four + /θ/ (th)	/-(r)θ/ : fourth	/-rθs/ : fourths
1.8.2 five + /θ/ (th)	/-fθ/ : fifth	/-fθs/ : fifths
1.8.3 ten + /θ/ (th)	/-nθ/ : tenth	/-nθs/ : tenths
1.8.4 six + /θ/ (th)	/-ksθ/ : sixth	/-ksθs/ : sixths
1.8.5 twelve + /θ/ (th)	/-lfθ/ : twelfth	/-lfθs/ : twelfths
1.8.6 thousand + /θ/ (th)	/-ndθ/ : thousandth	/-ndθs/ : thousandths

## Analysis of syllable structure

As mentioned above, Syllable structure for pronunciation is a formula for the sounds pronounced, not for the letters.

### 1. Analysis of one-syllable words

As pronouncing each word in the list below, monitor your pronunciation and observe the CV sequence of sounds. The silent letters do not count in the analysis of syllable structure as in the word: *debt* /deɪt/ and digraphs count as only one C or V as in the word: *shop* /ʃɒp/: CVC and *boat* /bəʊt/: CVC.

### 2. Analysis of two-syllable words

We have seen that English words start up to three consonants at the beginning of a word and up to four at the end of a word. Such sequences of consonants are at the beginning or the end of a syllable, occurring together.

Compare the following examples given by Sethi & Dhamija (1999) below. /-nd/ in the word: **send** /send/: CVC is a consonant cluster because it forms parts of the same syllable, whereas /-mb-/ in the word: **number** /ˈnʌmbə(r)/ CVC.CV(C) is not a cluster since /-m/ and /b-/ belong to two different syllables: /-m/ is the arresting consonant of the first syllable, and /b-/ the releasing consonant of the second. Now, the consonants, like /m/ and /b/, which occur together in a word but form part of two different syllables, are called *abutting* consonants.

## Summary

A syllable is a unit of sound that contains one vowel sound. Although a syllable has only one vowel sound, it may contain one phoneme or more. The syllable is a phonological unit consisting of a vowel or other unit that can be pronounced in isolation, either alone or accompanied by one or more less sonorous units. A vowel is the ‘*nucleus*’ or center and a consonant is a ‘*marginal element*’ in the syllable. The consonant at the beginning of a syllable is called ‘*releasing*’ consonant and at end of a syllable is called ‘*arresting*’ consonant. The marginal elements are not obligatory. These may occur either before the nucleus or after the nucleus, or some before and after the nucleus. We use the symbols V standing for the vowel and C for the consonant element, where C is optional and V is obligatory. Analyzed above are the possible phonotactic patterns of syllable structure that we have in English.

## Question reviews

1. What is a syllable? Give examples.
2. What is meant by a syllabic consonant? Give examples.
3. What do you mean by 1) nucleus element and 2) marginal element in the syllable?
4. How many syllables are there in '**technology**'? Write its syllable structure.
5. What is a consonant cluster? Give examples from English of:
  - 5.1 an initial consonant cluster made up of two consonants.
  - 5.2 an initial consonant cluster made up of three consonants.
  - 5.3 a final consonant cluster made up of two consonants.
6. Divide the following words into syllables and mark the structure of each syllable.
  - 6.1 college
  - 6.2 suddenly
  - 6.3 director
7. Give five words each of the following consonant clusters and then attempt a phonemic transcription of the words.
  - 7.1 CC in the initial position
  - 7.2 CCC in the initial position
  - 7.3 CCC in the final position
8. Write the following words in phonemic transcription and point out the initial and /or final consonant clusters:
  - 8.1 glimpsed
  - 8.2 splashed
  - 8.3 strength
9. Supply three words to illustrate each of the following types of consonant cluster:
  - 9.1 Final cluster with 3 consonants
  - 9.2 Final cluster with 2 consonants
  - 9.3 Initial cluster with 3 consonants
10. Give two examples each of the following types of syllable:
  - 10.1 CVCCC
  - 10.2 CVCCCC
  - 10.3 CCVCCC