

# IIT Madras

## ONLINE DEGREE

**English - 1 (Basic English)**  
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**Lecture - 08**  
**Clusters in English Words**

Welcome to the class. Today we will look at clusters in English words. We know there are two types of sounds, consonant sounds and vowel sounds are part of the sequence. We also know that there must always be a vowel sound in a word. A lot of times we see it is a combination of several consonants and several vowels.

But as part of the requirement of your word, that is to form a word; there must be at least one vowel sound in every word. Okay, so with that, we see consonants and vowels together in a word. So we will continue our discussions on words, and we will see how clusters play an important role in the formation of a word.

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### Consonants

- Sounds produced by modification of the flow of exhaling air in the vocal tract

• /k/ -- <u>velar</u>	[-asp, -voice]	king, class	/kɪŋ/ /klɑ:s/
• /g/ -- <u>velar</u>	[-asp, +voice]	great, glass	
• /p/ -- <u>bilabial</u>	[-asp, -voice]	pink, pure	
• /b/ -- <u>bilabial</u>	[-asp, +voice]	bliss, bless	

- They have an inbuilt vowel sound 'a' with all of them.

So look at consonants. As we know, one more time consonants are produced vocal tract by using exhaling flow of air. And this flow of air is important because the exhaling flow of air slowly gets modified at different places of articulation in our oral cavity. And therefore, we produce various different kinds of consonant sounds. Without this modification or very little modification, we produce vowel sounds.

And a combination of the two makes a word. So when we look at the look at few examples to repeat one more time, we have vowel sounds, consonant sounds like k and g. So according to their articulation, that is the place where they get articulated it is a velar sound because it comes from velum, both of them. Both of them are not aspirated sounds, and k is a voiceless sound whereas g is a voiced sound.

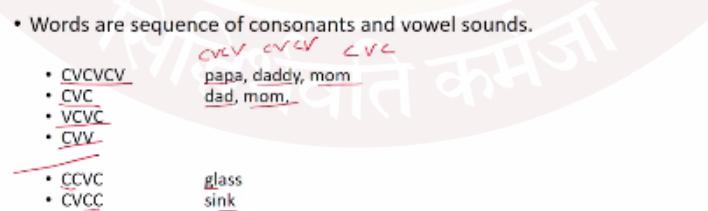
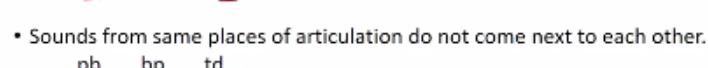
We see these sounds in words like king, class. Remember, in English spelling; we use symbols to represent these sounds. Sometimes, there are different symbols for the same sound. For example, we are using this symbol for k sound in king, and we are using this c letter as a symbol for k sound in a word like class. So when we write, therefore, when we try to identify the sounds, we write it this way, king.

And to class, we do it this way. So thus we can show that k is the initial sound in both words. In words like great and glass, we have initial sounds in these two words are g and g in another one as well. So, p and b are bilabial sounds according to their places of articulations. And they are both again, p is non-spirited, non-voiced and b is non-aspirited, but voiced as in words like pink, pure, bliss, bless these other words.

With these sounds, and what we also know about consonant sounds and particularly consonant sounds in a word that each consonant sound has an inbuilt vowel a in it and this vowel sound a gets reduced, there is a reduction of this vowel sound for making of a word.

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### Words

- Words are sequence of consonants and vowel sounds.  

- CCVC  
• CVCC
- CVCV  
• CVC  
• VCVC  
• CVV
- CVCV  
• CVC  
• VCVC  
• CVV
- Sounds from same places of articulation do not come next to each other.  

- Words only with vowels sounds  


So when we see words, we have discussed some of these examples, and I want to draw your attention one more time to these words like papa, daddy, mom. These are examples of, so papa is an example of a sequence of CVCV. Daddy is an example of CVC. Mom is also an example of CVC. That is this word mom has three sounds, consonant, vowel, consonant.

Daddy has four sounds, consonant, vowel, consonant, vowel. And mom has three sounds consonant, vowel, consonant. Same thing as in dad and mom. So this simply shows you that there are several possible combination combinatory sequences of consonant vowels possible. And words reflect various kinds of sequences of these consonant and vowel alternations.

There are some examples here of these alternations, and we get words according to these alternations. The only thing we need to keep in mind that vowels and consonants come in various sequences, various alternation patterns to form a word. And because there are no restrictions on how many times a sound can be used, one sound can be used more than once in a word.

Therefore, we have millions of words using a limited number of sounds that is 20 vowel sounds and 24 consonant sounds in English. Now we turn to the discussion for today that is again clusters. Let us start our discussions from here because they are an important part of words. So what happens in a cluster? We see a sequence of two consonant sounds sometimes at the beginning of a word that is at the initial position of a word.

And sometimes at the final position in a word that is at the end of a word. In an example like glass, there are two sounds g and l at the initial position, which form a cluster. In this word sink, there are two consonant sounds n and k at the final position of this word, they make a cluster. Now a cluster of two consonant sounds is possible at the initial position and also at the final purchase.

Sometimes it is possible in the middle of a word as well. Then what is a cluster? A cluster is, I will talk about cluster one more time again. While talking about words and sequences of sounds in a word two another important, two more points that are

important. One, usually you do not sound you do not find two sounds from the same place of articulation coming next to one another in a word.

You will never find a word with a combination of p and b, b and p or t and d. Such combinations are not allowed in a word. And sometimes words are possible only with vowel sounds. This is an example of this one. One more time I am talking about sounds in a word. That is two sounds aa and i not the way it is written.

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### Consonant Clusters

- Two consonant sounds together
  - Reduction of the inbuilt vowel sounds from the first one
  - Not in random order *Phonetic transcription*
- |           |   |                         |         |
|-----------|---|-------------------------|---------|
| • Cluster | - | /kla <sup>tʃ</sup> ter/ | CCVCCVC |
| • Bliss   | - | /blis/                  | CCVC    |
| • School  | - | /skuul/                 | CCVC    |
| • Scooter | - | /skutər/                | CCVCVC  |
| • Blast   | - | /blast/                 | CCVCC   |

Now when we look at clusters, we find there are two consonant sounds together. But two consonant sounds next to one another does not make a cluster. For a cluster, what is important is the reduction of the inbuilt vowel sound a, and it is completely removed, and then there is no space between the two, and they make a cluster. So, for example, here you had seen word like glass, sink.

So when we speak, we do not find any vowel quality in g when we are saying glass. And when there is a cluster, only if it is a cluster of two consonant sounds, only the first one is losing the vowel quality. That is how the cluster is made. So let us look at some of these examples. Let us look at some of these examples in English words. Actually, the word cluster itself is an example of clusters.

And it is very important for us to see how it works. There is another important note on this part that I want to add here. This is, so this is how we spell words in English. And, this sequence tells you, this column tells you the sequence of consonant and

vowels in these sounds. This part is called it is a phonetic way of writing a word, which helps us identify sounds.

So this is also called phonetic transcriptions. In a different class, we will talk a little bit more about IPA symbols that is in that is there are some specific symbols that are used to identify sounds in English. But for the convenience of our learning, I have tried to reduce some of these symbols. So I want your attention here. Keep in mind; there is a full, fully developed chart of symbols that are used to capture sounds in English.

They are called IPA charts. This is part of IPA chart. IPA stands for International Phonetic Association, and this chart is also known as International Phonetic Alphabet. But for the purpose of simplicity, for the purpose of making it easier to type, and for the purpose of making it easier to learn, I have tried to simplify it to some extent. That is one.

Second, we will discuss it, because it this understanding these symbols helps us use the dictionary faster and eventually, they also help us identify sounds. So we will have a discussion on that. But at this point, I want your attention on this column, only because it helps us identify sounds. Also, I will indicate where I have simplified it. So in a word like let us look at the word cluster.

So it is we have a cluster of two consonant sounds at the beginning of this word, and then a cluster of two sounds in the middle of this word. And this is where you try to identify k, l. They form a cluster. So they become kl a, s and t again make a cluster. So they become, st and then a and r. So it is a consonant, consonant, vowel, consonant, consonant, vowel and consonant.

This is the sequence in which sounds appear in this word. And this sound in, which is an inverted e is a symbol for a, a sound according to IPA. So I have tried to use it in this word for you to see. So that is how we write cluster. Let us look at the new word next word, bliss. It has a cluster of two consonant sounds at the beginning of the word. And then you have a vowel and a consonant.

This is the way to spell. That is s, s at the end of the word bliss is just a way to a spell. It is not a cluster. It is just one sound, s, bliss. In the word like school, s and k, these two words, these two sounds, make a cluster. Then you have long uu and l at the end of this word. So this is again, a cluster at the initial position in this word. Now again, this is a spelling. This is the symbol for sounds.

And according to the phonetic alphabet, sometimes this length of u is indicated like this or it is also indicated as this. But for simplicity, I am just putting it doubling of these two letters to indicate length. In a word like scooter, look at this, again s and k are making cluster, but this is a short vowel skutar. And here I want you to see that I am using just a general symbol to indicate sound a and not this one.

So this is scooter and final word it is called blast. This is an example of a cluster in the beginning of the word and cluster at the end of the word. B and l these two sounds are making cluster and s and t are making clusters. So you see, in several words in English, we find a cluster of two sounds. A cluster of two consonant sounds is a very natural phenomena in our speech.

There are some languages where cluster is not allowed. In fact, even words with clusters from some other language like English is simplified. When you speak when you hear some variety of Hindi or particularly Punjabi variety of Hindi, you will hear people say a word instead of a word like school; some people do say sakool. For a word like scooter, some people do say sacooter.

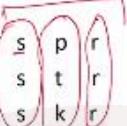
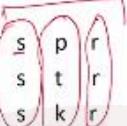
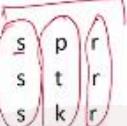
Now English words like school and scooter are used in Punjabi or Punjabi variety of Hindi and what the speakers do is they insert the consonant, the vowel sound a in between the two sounds that are making cluster to break the cluster. And therefore school, sk in school becomes sakool. So they do not leave the first sound s without its vowel quality. They insert that sound there and it becomes sakool.

So some languages do not allow clusters, but it is a common feature of many languages in the world. And there are a lot of clusters in words of English. There could be small words or a big word in every type of word. Small words are like monosyllabic word, and big words are like multi-syllable words. So you see cluster in

various kinds of words in English. And this simply shows you cluster, in the beginning, cluster in the middle, cluster at the end.

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### Clusters of three consonants

• Spring	/spring/		<u>cccvc</u>
• Stress	/stres/		<u>cccvç</u>
• Screw	/skrue/		<u>cccvv</u>

• Splash	/splash/		<u>cccvç</u>
• String	/string/		<u>cccvç</u>
• Scrub	/skrub/		<u>cccvç</u>

Now, I want you to pay attention to clusters with three consonant sounds. So far, what we have seen, these are they were clusters of two consonants. That is two consonant sounds. Now I want your attention specifically to clusters of three consonant sounds. This is also very common in English. But because cluster as a process is making the word heavier so without clusters, you have millions of words.

With clusters, the total number of words are far lesser than the words without clusters. And when we talk about clusters of three consonants, though it is a productive pattern in a language like English, the total number of possible words is far fewer, very few in number. But nonetheless, what is important is to look at its pattern. It is a very interesting and very interesting pattern emerging out of it.

It is worth paying attention to for improving the way we speak English, for making our English impressive. So let us look at some of the words. So words are like when you pay attention to words like spring, stress, screw. I have an example of six words here to help you understand the cluster of three consonant sounds in English. What do we see?

So the way we have been working that is the first thing we want to do is to write it in a way so that we identify sounds. So when you write it this way you have s p r i n g

okay. This is a velar nasal sound, which in the phonetic chart is indicated like this ng. How does it sound? Ng spring. So there are three consonant sounds which are part of the cluster, and they are all at the initial level, initial position.

So another point to keep in mind is, clusters of three consonant sounds are possible only in the initial position of a word. Or at least the examples that I am giving you, the clusters are at the initial position of a word. What are the sounds in the cluster? That is interesting for us to notice. In this example spring, we have s p r.

So three consonant sounds and after that comes a vowel sound i and then we have another consonant ng. That is velar nasal, which I show you here. In a word like stress, again identify it. S t r e and s. The sounds that make cluster are s t r. They are consonant, three consonant sounds, then a vowel and then a consonant. In a word like screw. You have s k r i u. It is screw.

It is i and u screw. S k r i and u. So again three consonants and then two vowels at the end of it. So you get s k r as three sounds making clusters. Similarly, you look at splash, string, scrub. What do you find? The three consonant sounds that are making clusters are s p l in splash. S t r in string. And s k r in scrub. So if you pay attention to these words, immediately your attention comes to this part.

And you find in these this part that in every example of a cluster with three consonant sounds, the first sound of that cluster must be s, must only be s and the second sound must be one of the three that is, p, t, and k. Look at this. Here also the first sound is s. The second sound is one of these three p, t, k. And the third one is either r or which is either r or l. Now, this is a very heavy constraint on making of a word.

And therefore, words with clusters of three consonant sounds are very few in number. So this is very interesting to see that words follow such heavy constraint on its formation that we have, you try to make a word, first sound must be s second sound must be either one of the three p t or k.

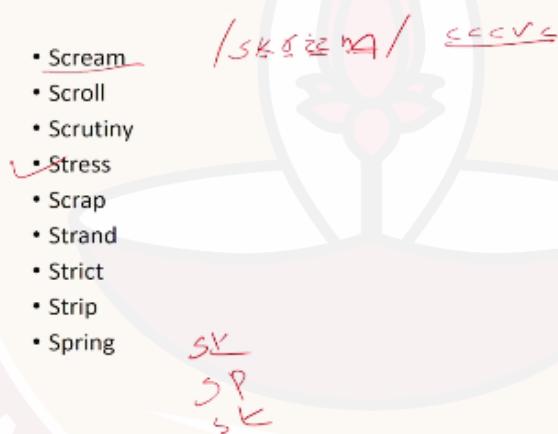
So if you want to describe this on the basis of your understanding of sounds and vowels and consonants and places of articulations it becomes even more interesting.

So first one is s. It is a dental fricative sound. S, in English it is a dental fricative sound. Second one is one of the stop sounds, p, t, k. One is bilabial stop. The other is alveolar stop; t alveolar stop and k is a velar stop.

So there are three different places of articulations but they are all stops sounds plosive sounds and r and l in English are called not English in according to sounds are called liquid sounds. So there is a common thing between the two sounds. So the last sound that is last sound of the sequence of the cluster must be either r and l. No other sounds can participate in a cluster of three consonants.

This is an interesting pattern to observe, that we see in a cluster of three consonant sounds at the initial position in several English words. I mentioned that it is a very productive pattern in English.

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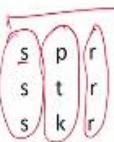


You can see a lot many words with this. Words like screen, scroll, scrutiny, stress, scrap. I have used this word stress as an example to show you before. Scrap, strand, strict, strip, spring. All these words have a cluster of three consonant sounds in the beginning. But if you start noticing not paying attention to how they are spelt, but how they are spoken, you will see this pattern of s in the s as the first one.

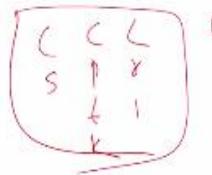
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## Clusters of three consonants

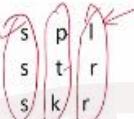
- Spring /spring/
- Stress /stres/
- Screw /skrue/



cccvc  
cccvç  
cccvv



- Splash /splash/
- String /string/
- Scrub /skrub/



cccvç  
cccvc  
cccvv



So the way it works is there are three consonant sounds. So s as the first one; p, t or k as the second one, and r or l as the third one. That is how the pattern emerges. See if you understand this, then you understand, not just the word formation, not just the cluster. And, you know, you know how these sounds are combined together, how we should speak.

And by now you can see that a clearer understanding a clarity about these things definitely gives you more confidence. And these are not complicated things to understand. Again, one more time, you do not have to memorize any one of them any one of these. You just understand. Try to pay attention to some of them.

And they will automatically pop up when you do a little bit of practice by keeping these things in mind, and your speaking becomes impressive. So that is an example. Now for this purpose again, I would suggest you repeat the exercise that we have done before. Let me start it in let me talk about the practice exercise for this class in the reverse order.

There are several words with this with examples, as examples of three consonant sound as clusters at the beginning of a word that I have given you. I also mentioned this as a very productive pattern. I want you to work on finding out more words like this, where you can see three consonant sounds as the clusters. It is possible, but it is possible for s and k, s and p and s and t to come as a cluster of two consonants also.

So check if you get a vowel right after this s k like as in school s p as in spa, or s t in several other words. Do you get a vowel right after two consonants or do you get a vowel after three consonants? If you check this thing, you will get more examples. The second part of the second set of the assignment again that I want you to do today is taking a set of another 20 words.

Another set of 20 words where you can find consonants and vowel sequence and quality of consonants and vowels. Check what are the consonant sounds in that word and what are the vowel sounds in that word. What are the places of articulations of those consonant sounds in these words? And what are vowel sounds in them like are they front vowel, mid vowel or back vowel. Are they short vowel or a long vowel?

According to these things, when you spend some time on 20, 30 words and pay attention to that, it makes you slow down. And it helps you look at those words. Trust me, your attention to 40 words whether you do this exercise in twice, whether you do this exercise twice, or you do this exercise three times. Or let us say four times of 10 words each.

The harder you look at consonants and vowels sequence, consonant and vowel when you identify consonants, the first thing is to identify consonants and vowels, sounds. Then write their sequence and then write the sequence of what I have. So you, here is how you do this. First, find a word, let us say scream. Write it identifying sounds like s, k, r, ii, and m. Put them in the slant line.

This symbol tells you that this is not the spelling. This is a sequence of sounds. So you have scream, s, k, r, ii that is long ii and m. And then write it as consonant, consonant, consonant, vowel, consonant. So this is the sequence. When you put them, then I want you to pay attention to the sounds. Because we know there are only 24 sounds in the language, so we want to see what are the sounds in this word.

It is an interesting exercise to be able to pay attention to individual sounds and also to see how so many how only a few set of 24 sounds come in various sequence various order to make a word. So s is an alveolar fricative, k is a velar stop, r is a liquid sound, ii is a vowel sound, and m is a bilabial nasal sound. So when you pay attention to

these things, with a set of examples of 10 words at a time or 20 words at a time, do it twice or three times.

It really becomes, it really leaves a mark in you. And it helps you identify the sounds. It helps you use those sounds. And when they appear in words, your pronunciation of those words, and eventually your speech becomes impressive. And you sound a very confident speaker. Thank you so much. See you soon.

