

#### A Corpus-aided English Pronunciation Training Programme

#### (Workshop 2)

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語言學及現代語言系 LINGUISTICS AND MODERN LANGUAGE STUDIES



Dr Chen Hsueh Chu

#### **This Workshop**

 Explore the suprasegmental system of English in alignment with the suprasegmental features in the corpus (pausing, intonation, lexical stress, CV linking)

- Have hands-on practice of corpus concordances
- Understand acoustic properties of the suprasegmental features

Integrate corpus data into pronunciation teaching



Teaching

#### English Suprasegmental System



## The English SOUND System

#### **The Segmental**

<u>System</u>

#### phonemes

 consonants & vowels (including diphthongs)



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#### **The Suprasegmental**

<u>System</u> linking the segments / phonemes

pausing, intonation, lexical stress, CV linking...

## The English SOUND System

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#### The Suprasegmental

<u>System</u> linking the segments / phonemes

pausing, intonation, lexical stress, CV linking...

- Human speech communication contains both sounds and silence (pause).
- Generally, pauses of various lengths can occur at the end of the statement or between grammatical units within sentences.



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 In speech production, pauses are necessary for a speaker to regain his breath and make time available for the cognitive processes of speech planning.



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- In speech production, pauses are necessary for a speaker to regain his breath and make time available for the cognitive processes of speech planning.
- With respect to linguistic functions, speakers or readers can use pauses to segment an utterance into smaller stretches.



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- In speech production, pauses are necessary for a speaker to regain his breath and make time available for the cognitive processes of speech planning.
- With respect to linguistic functions, speakers or readers can use pauses to segment an utterance into smaller stretches.
- Effective speakers use appropriate pauses to draw the audience's attention to meaningful chunks of Information they would like to convey.

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Classification of pausing:

- Silent pause: a period without articulation by the speaker (usually longer than 100ms).
   e.g. Why do people usually have an accent (P) when they speak a second language?
- Filled pause:



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#### **1. Pausing** Classification of pausing:

- Silent pause: a period without articulation by the speaker (usually longer than 100ms).
   e.g. Why do people usually have an accent (P) when they speak a second language?
- Filled pause: a period of articulation of nonmeaningful content

e.g. Will you manage (FP) to make progress, (P) or will



## 2. Intonation

#### Intonation:

#### H.O.W Y.O.U D.O.I.N.'?

#### Joey in Friends





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## **2. Intonation**

#### Intonation:

- is the use of **pitch variation** in discourse.
- occurs at the end of phrases/sentences.
- shapes the meaning in various



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#### 2. Intonation

#### Falling intonation is used in:

- Declarative sentences I live in Hong Kong .
- Commands Turn left .
- Exclamatory sentences What a wonderful day !!
- The last item of a list I like red, blue, and yellow .
- Wh-questions Why do people usually have an accent when they speak a second language ?
- **Tag questions** But old habits won't change without a lot of hard work, will **they** ?

#### 2. Intonation **Rising intonation** is used in:

Yes/ No questions –

Does this mean that accents can't be changed ??

• Every item of a list except the last one –

I like red  $\nearrow$ , blue  $\nearrow$ , and yellow.

• Dependent or introductory sentences –

If it is sunny tomorrow , we will have picnic.

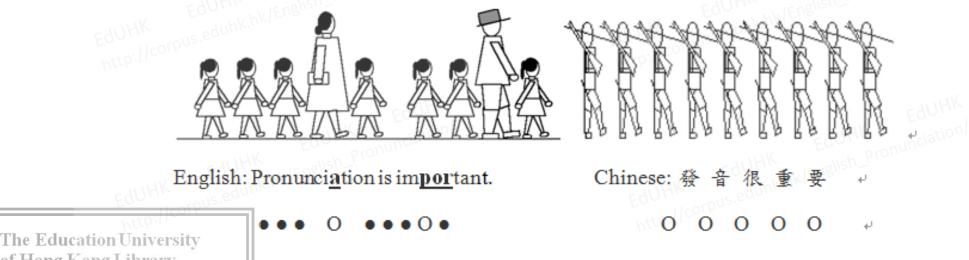
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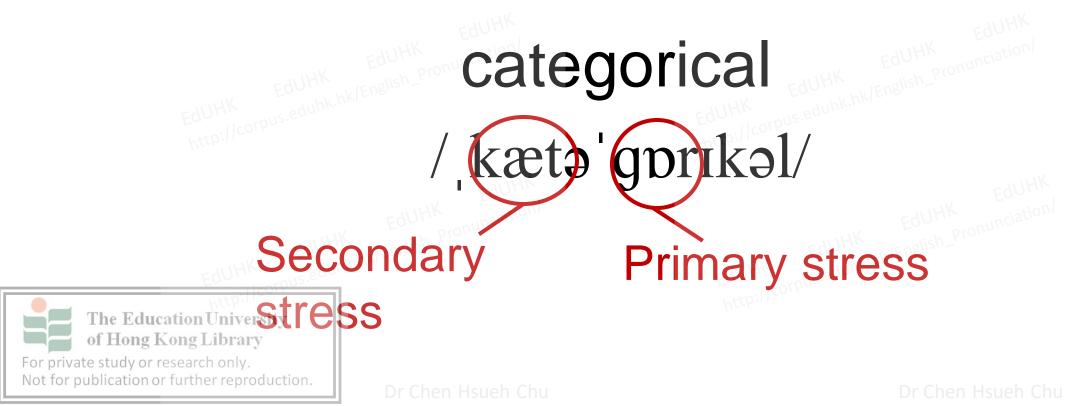
, be careful with the dog. The BRICHIO DOCOOO

- Stress is the relative emphasis that may be given to certain syllables in a word (lexical stress), or to certain words in a phrase or sentence (sentential stress).
- In English, stressed syllables are louder than non-stressed syllables. Also, they are longer and have a higher pitch.



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- Syllables in a word can be either stressed or unstressed.
- The strongest stress is primary stress.
- The second strongest stress is secondary stress.



- Differences in lexical stress placement result in changes of word meaning.
- e.g. DEsert vs deSERT ADdress vs adDRESS CONduct vs conDUCT ACcent vs acCENT



#### Lexical stress vs. stress



#### https://www.imdb.com/tjtle/tt0119217/videoplayer/vi1575984665

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#### Lexical stress Singlish in '*I Not Stupid*' (小孩不笨)

**The Education University of Hong Kong Library** For private study or research only. Not for publication or further reproduction. 對也反,不對也反,感覺好像反對黨 She challenges her on everything. Like an opposition party.

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ish\_Pronunciation

nglish\_Pronunciativ

## 4. CV linking

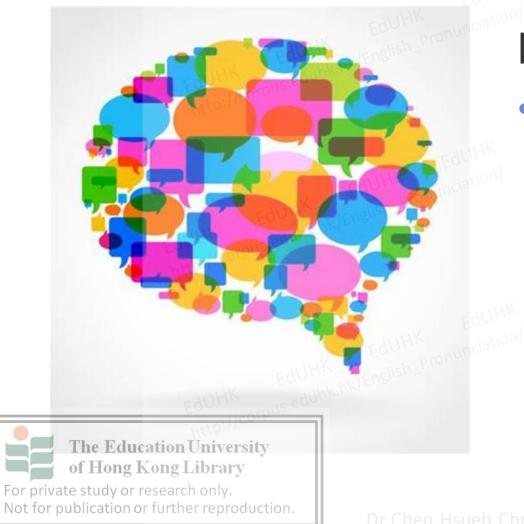
- Consonant vowel (CV) linking is one of the features of connected speech by native speakers of English.
- It occurs when a word ends in a consonant sound and the next word starts with a vowel sound.

e.g.  $turn off \rightarrow tur-noff$ 

an egg  $\rightarrow$  a-negg Why do people usually have an accent when they speak a second language?



#### **Discussion 1**



 Discuss with your partner(s):
 Are suprasegmental features important for English pronunciation teaching and learning, and why?



## **Discussion 2**

Discuss with your partner(s):

- What are the most frequent English suprasegmental features you observed or think the English learners in Hong Kong (from local Hong Kong, mainland China, or ethnic minority groups) have?
- Why do the features occur so frequently?



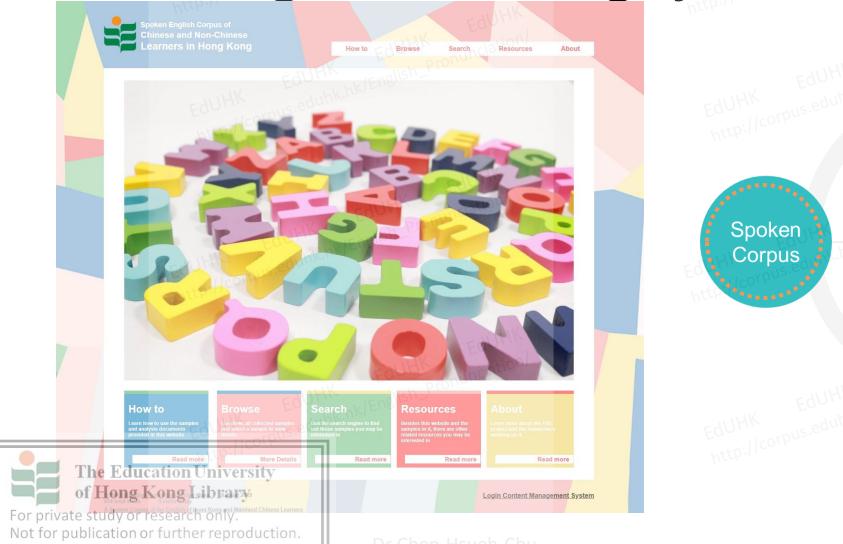




# English Suprasegmental

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#### Our Corpus-aided English Pronunciation Teaching and Learning System

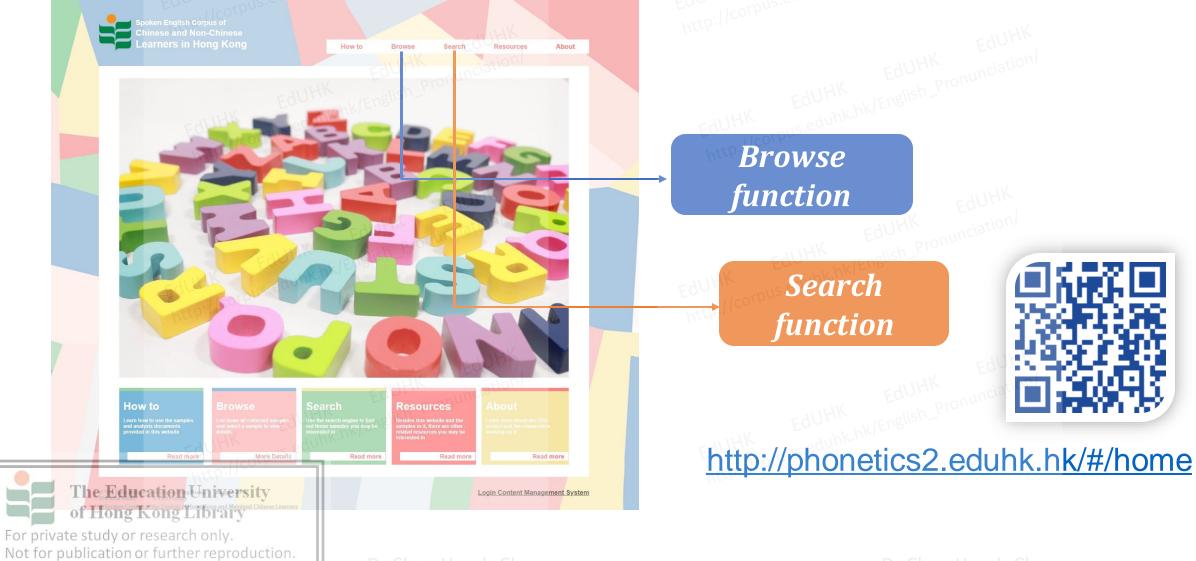


**Corpus-aided Online English** Pronunciation Learning System Praat Manual

Practice

Resources

# Exploitation of our new corpus...



## **Our Spoken English Corpus**



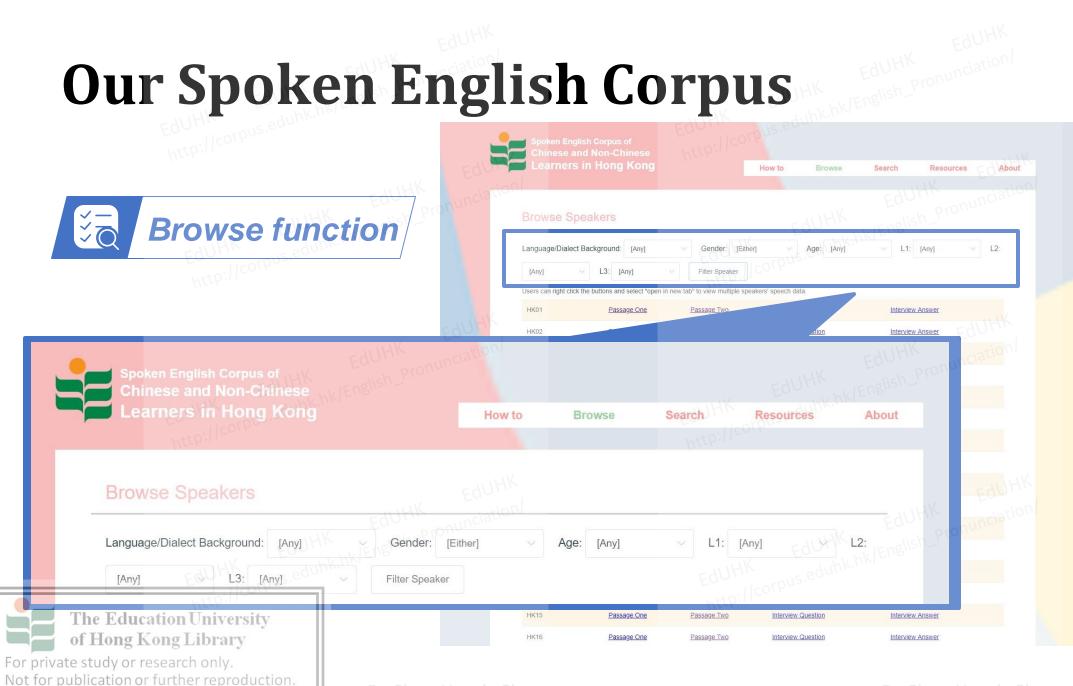
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## **Our Spoken English Corpus**

**Browse function** 

# Sentence reading with graphic illustration for *suprasegmental features*

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## Our spoken English corpus - browse

#### Speaker: ML24

Hometown: JilinGender: femaleAge: 19Education Level: BachelorMajor: Science and Web TechonologyEnglish Level: College Entrance Examination 135 out of 150Year of Learning English: 12L1: MandarinL2: EnglishL3: (N/A)

Notes: "HK", "ML" and "SA" in the speaker's name stand for "Hong Kong", "Mainland" and "South and Sout

#### Remarks:

- 1. The blue contour in pictures is pitch contour to indicate the intonation (pitch).
- 2. The <u>yellow contour</u> in pictures is intensity contour to indicate the intensity of the speech.
- 3. The suprasegmental features that have been spotted. Please tick the boxes to show features.
  - Inappropriate pausing(IP)
  - Absence of pausing(AP)
  - Absence of CV linking(AL)
  - Inappropriate lexical stress(ILS)
  - Inappropriate intonation(II)



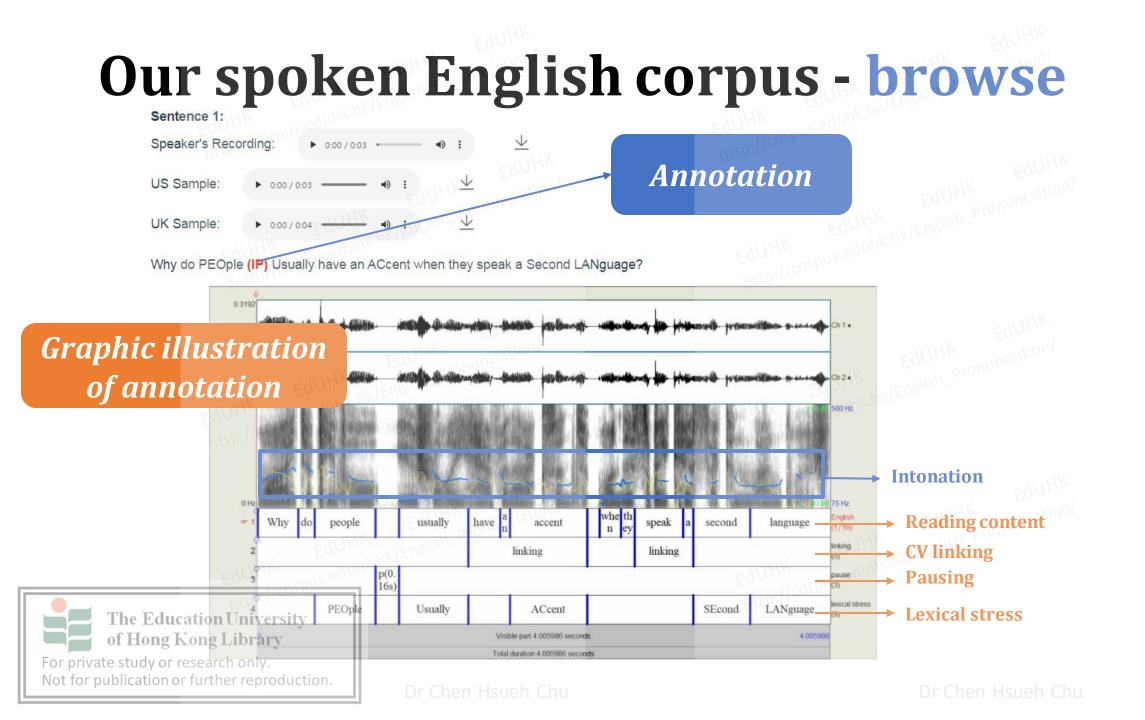
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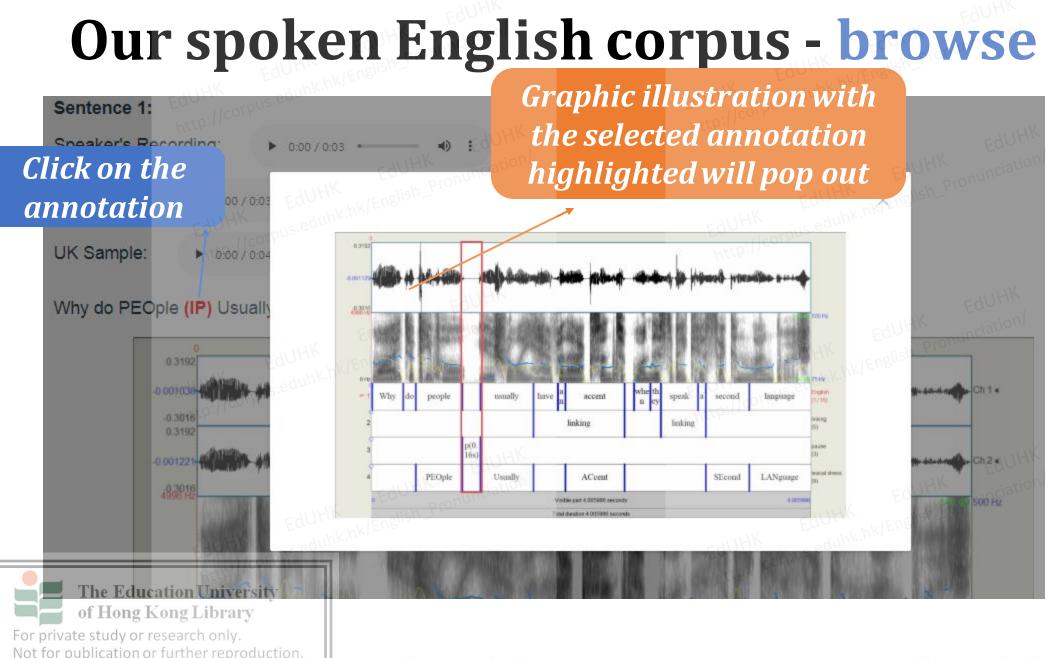
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Speaker

information

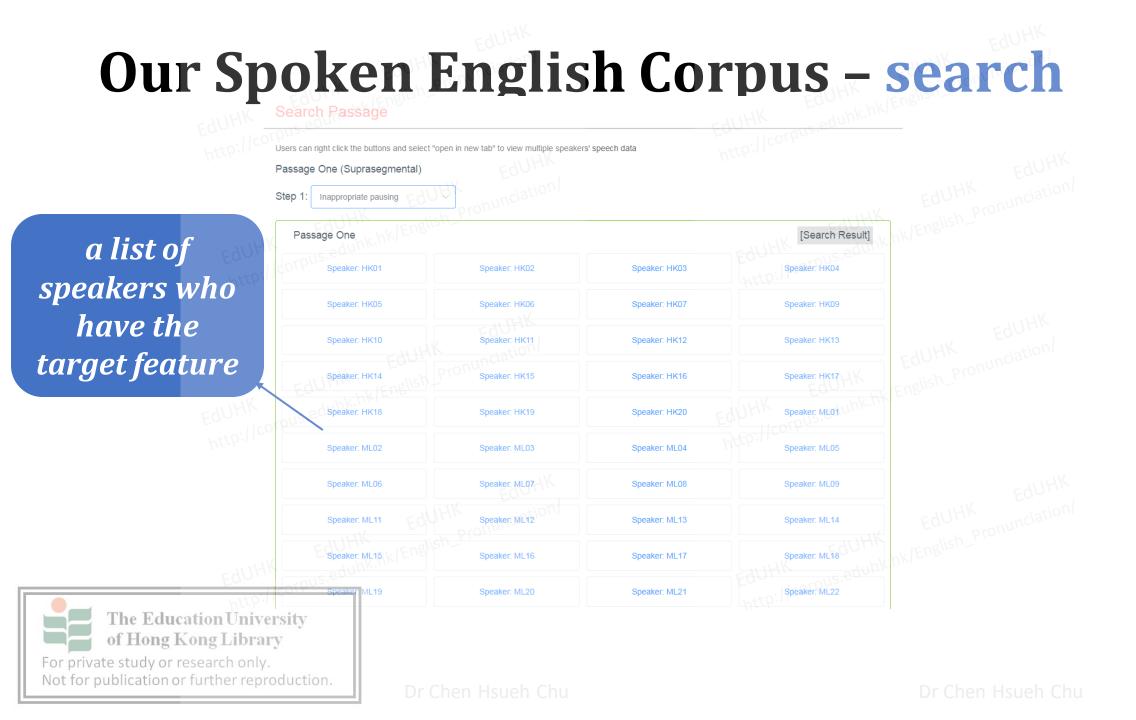


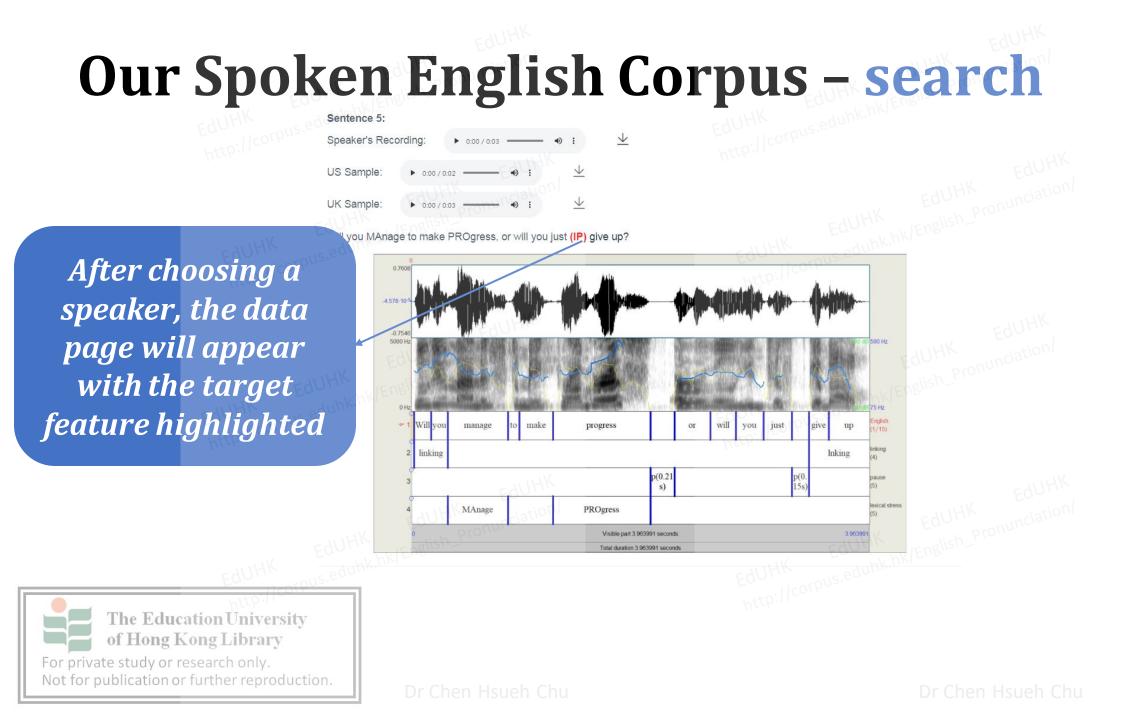


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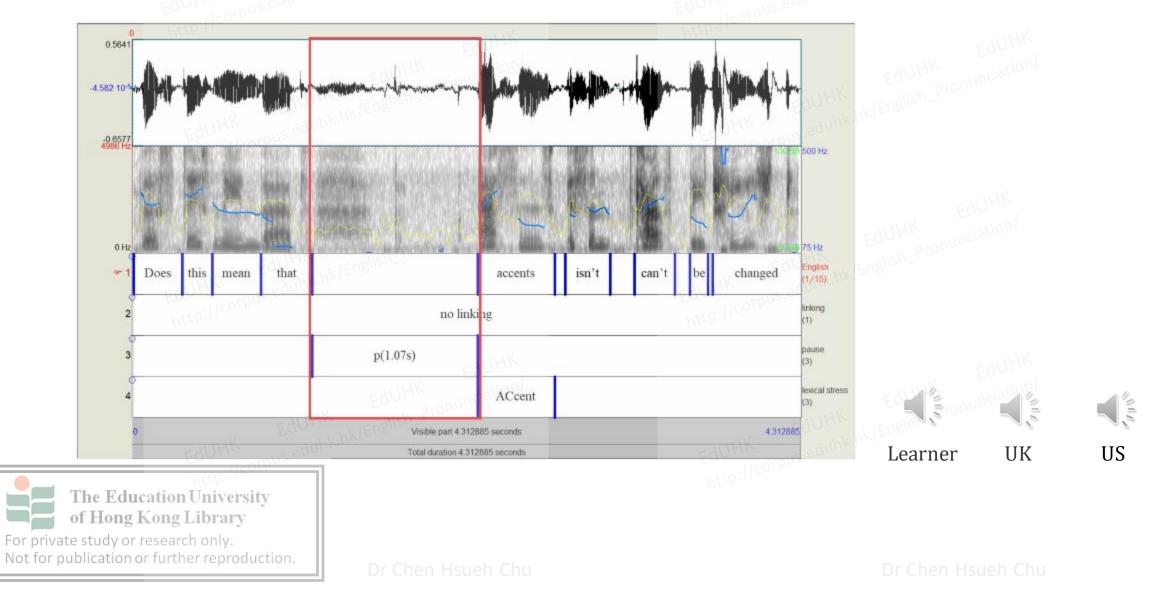
## Our Spoken English Corpus – search



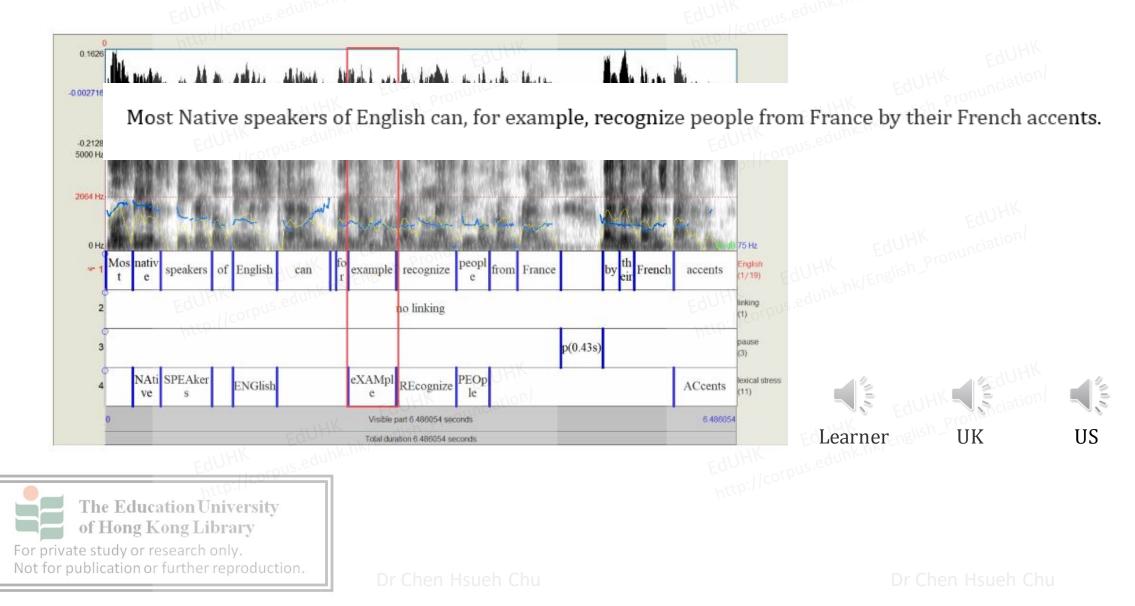




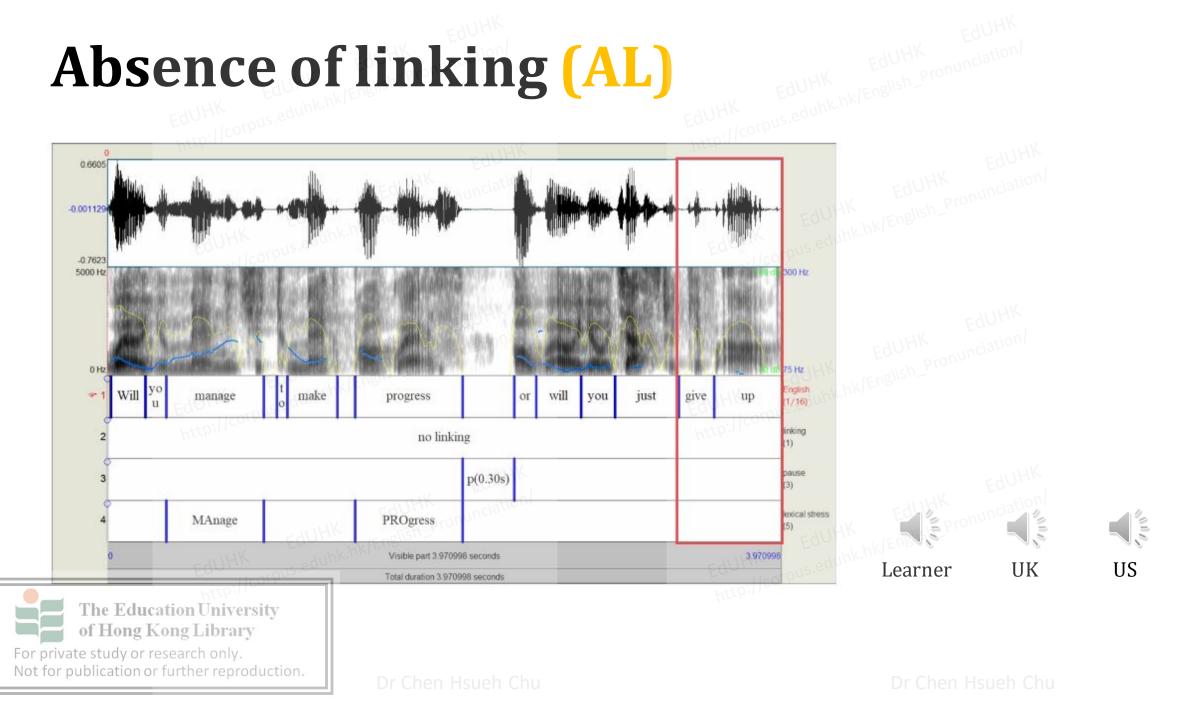
# Inappropriate pausing (IP)



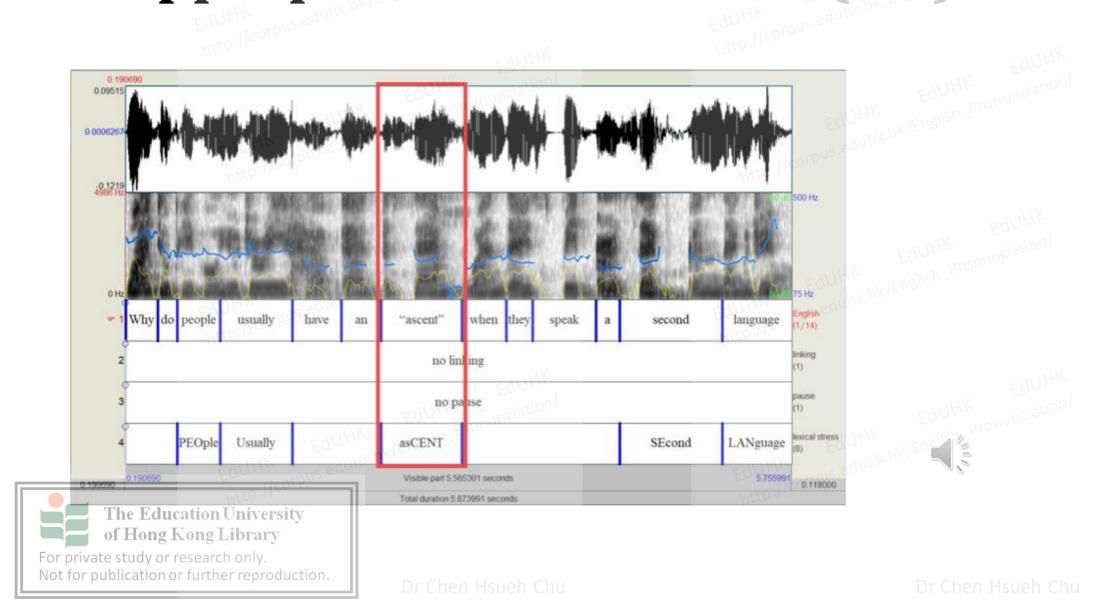
### Absence of pausing (AP)



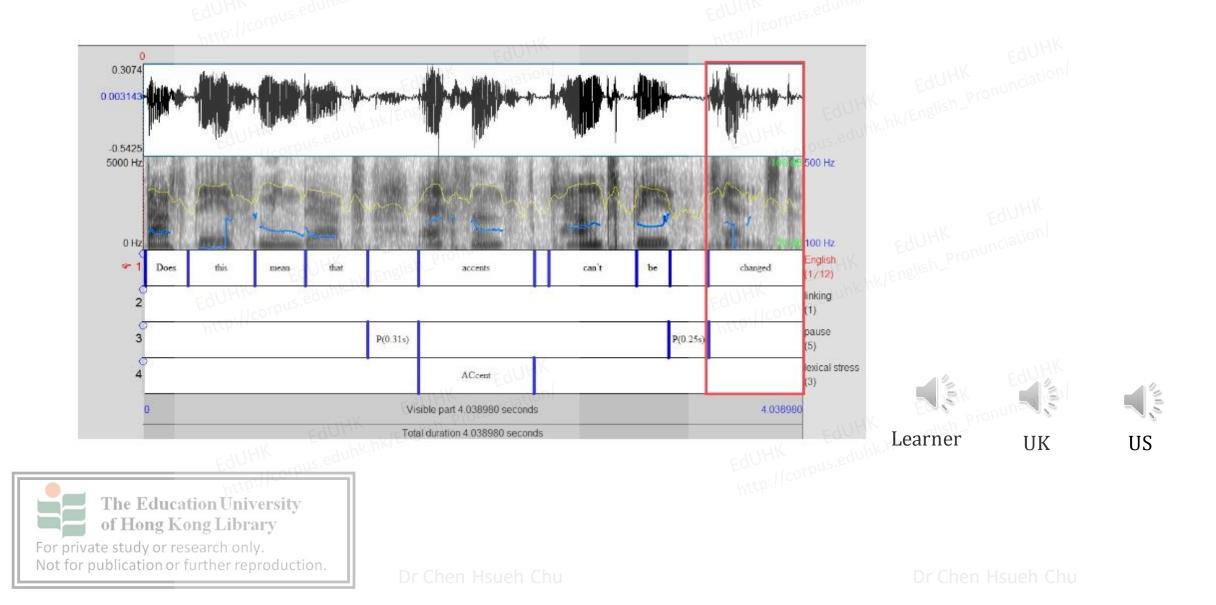
## **Absence of linking (AL)**



# Inappropriate lexical stress (ILS)



## **Inappropriate intonation (II)**



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### Hands-on activity 1:

### Worksheet 1

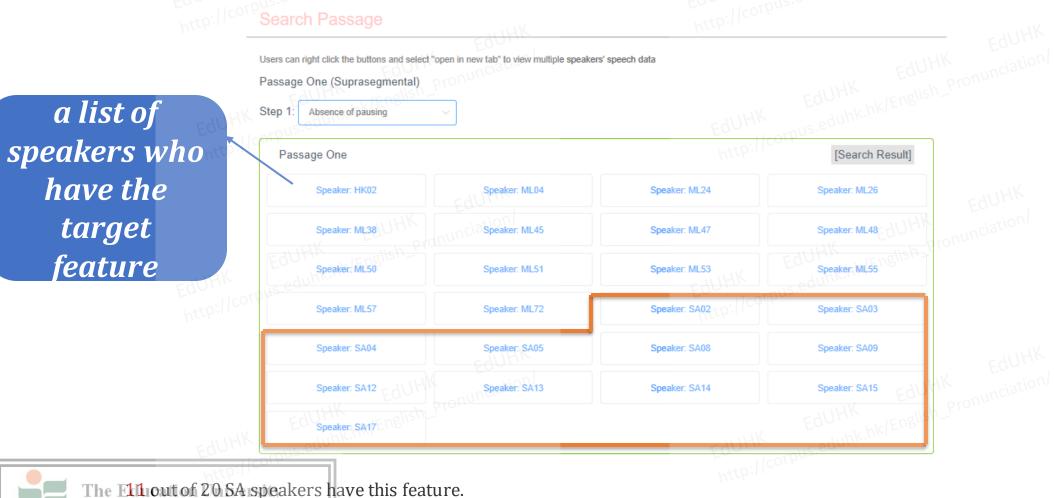
- 1. Visit the corpus <u>http://phonetics2.eduhk.hk/#/home</u>.
- 2. Use 'search' function.
- 3. Choose one suprasegmental feature you are interested in.
- 4. Note down the **numbers of HK, ML, SA** speakers who have the suprasegmental feature and calculate the **percentage** of occurrences for each group of speakers.
- 5. Discuss with your partner(s):
- 1) why did you choose this suprasegmental feature?
- 2) for the suprasegmental feature you searched for, which group of speakers has the highest frequency of occurrence?
- 3) what are the **possible causes** for such phenomenon? The Education of Hong Kong Library For private study or research only. Not for publication or further reproduction.

Type of suprasegmental feature	Group of speaker	Number of occurrences	Percentage of occurrences
	HK	19/20	<mark>95</mark> %
Inappropriate pausing	ML	<mark>90</mark> /96	<mark>93.75</mark> %
EdUHK mus.ed	SA	<mark>18</mark> /20	<mark>90</mark> %
Type of suprasegmental feature	Group of speaker	Number of occurrences	Percentage of occurrences
	HK Fd	UHK <u>1</u> /20 ation	<mark>5</mark> %
Absence of pausing	ML	ish <mark>13</mark> /96	13.54%
	SA	<mark>11</mark> /20	<mark>55</mark> %
Type of	Group of	Number of	Percentage of
suprasegmental feature	speaker	occurrences	occurrences
	HK	<mark>20</mark> /20	<mark>100</mark> %
Absence of CV linking	ML	<mark>95</mark> /96	<mark>98.96</mark> %
	SAEdU	<mark>20</mark> /20	<mark>100</mark> %
Type of	Group of	Number of	Percentage of
suprasegmental feature	speaker	occurrences	occurrences
Inappropriate lexical	HK	<mark>3</mark> /20	15%
stress	ML	<mark>19</mark> /96	19.79%
	SA	<mark>5</mark> /20	25%
Type of	Group of	Number of	Percentage of
suprasegmental feature	speaker	occurrences	occurrences
Inappropriate	HK	<sup>1151127</sup> 20/20	100%
intonation	ML	<mark>96</mark> /96	100%
http://cont	SA	<mark>20</mark> /20	<mark>100</mark> %

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# **Our Spoken English Corpus – search**



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# **Our Spoken English Corpus – search**

Tolure EdUHK Tolure EdUHK Tolure EdUHK Tolure EdUHK Users can right click the buttons and select "open in new tab" to view multiple speakers' speech data Passage One (Suprasegmental) Step 1: Absence of CV linking [Search Result] Passage One Speaker: HK01 Speaker: HK04 Speaker: HK02 Speaker: HK03 Speaker: HK05 Speaker: HK06 Speaker: HK07 Speaker: HK08 EdUHK EdUHK Ucorpus.eduhk.hk/English\_Pronunciation/ Speaker: HK10 Speaker: HK11 Speaker: HK09 Speaker: HK12 Speaker: HK13 Speaker: HK14 Speaker: HK15 Speaker: HK16 Speaker: HK17 Speaker: HK18 Speaker: HK19 Speaker: HK20 Speaker: ML01 Speaker: ML02 Speaker: ML03 Speaker: ML04 Speaker: ML05 Speaker: ML06 Speaker: ML07 Speaker: ML08 Speaker: ML09 Speaker: ML10 Speaker: ML11 Speaker: ML12 Speaker: ML13 Speaker: ML14. Speaker: ML15 Speaker: ML16 Speaker: ML17 Speaker: ML18 Speaker: ML19 Speaker: ML20 Speaker: ML21 Speaker: ML22 Speaker: ML23 Speaker: ML24 The Education University of Hong Kong Library Speaker: ML26 Speaker: ML27 Speaker: ML28 For private study or research only. Not for publication or further reproduction.

95 out of 96 ML speakers, 20 HK speakers, and 20 Lat e. Pronunciation p.//corpus.edunk.hk/English\_Pronunciation SA speakers have this feature.

## **Our Spoken English Corpus – search**

Users can right click the buttons and select "open in new tab" to view multiple speakers' speech data

### Passage One (Suprasegmental)

Step 1: Inappropriate intonation	~		
Passage One	EdUHK EdUHK	nk/English_1	[Search Result]
Speaker: HK01	Speaker: HK02	Speaker: HK03	Speaker: HK04
Speaker: HK05	Speaker: HK06	Speaker: HK07	Speaker: HK08
Speaker: HK09	Speaker: HK10	Speaker: HK11 EdU	Speaker: HK12
Speaker: HK13	Speaker: HK14	Ed Speaker: HK15	Speaker: HK16
Speaker: HK17	Speaker: HK18	English Speaker: HK19	Speaker: HK20
Speaker: ML01 Edit	COT Speaker: ML02	Speaker: ML03	Speaker: ML04
Speaker: ML05	Speaker: ML06	Speaker: ML07	Speaker: ML08
Speaker: ML09	Speaker: ML10	Speaker: ML11	OHK Speaker: ML12
Speaker: ML13	Speaker: ML14	Speaker: ML15	Speaker: ML16
Speaker: ML17	Speaker: ML18	Speaker: ML19	Speaker: ML20
Speaker, ML21	Speaker MI 22	Speaker: ML23	Speaker: ML24
The Education	Universityker: ML26	Speaker: ML27	Speaker: ML28
of Hong Kong I		Speaker: ML31	Speaker: ML32
or private study or researc ot for publication or furthe			



96 ML speakers, 20 HK speakers, and 20 SA , and Lare. Eduktive English\_Pronunciation

# Falling intonation is used in: Tag questions – But old habits won't change without a lot of hard work, will they ?



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### Hands-on activity 1:

5. Discuss with your partner(s):

1) why did you choose this suprasegmental feature?

2) for the suprasegmental feature you searched for, which group of speakers has the highest frequency of occurrence?

3) what are the **possible causes** for such phenomenon?



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### Hands-on activity 2

### Worksheet 2

1. Form groups/pairs.

# 2. Select one suprasegmental feature.

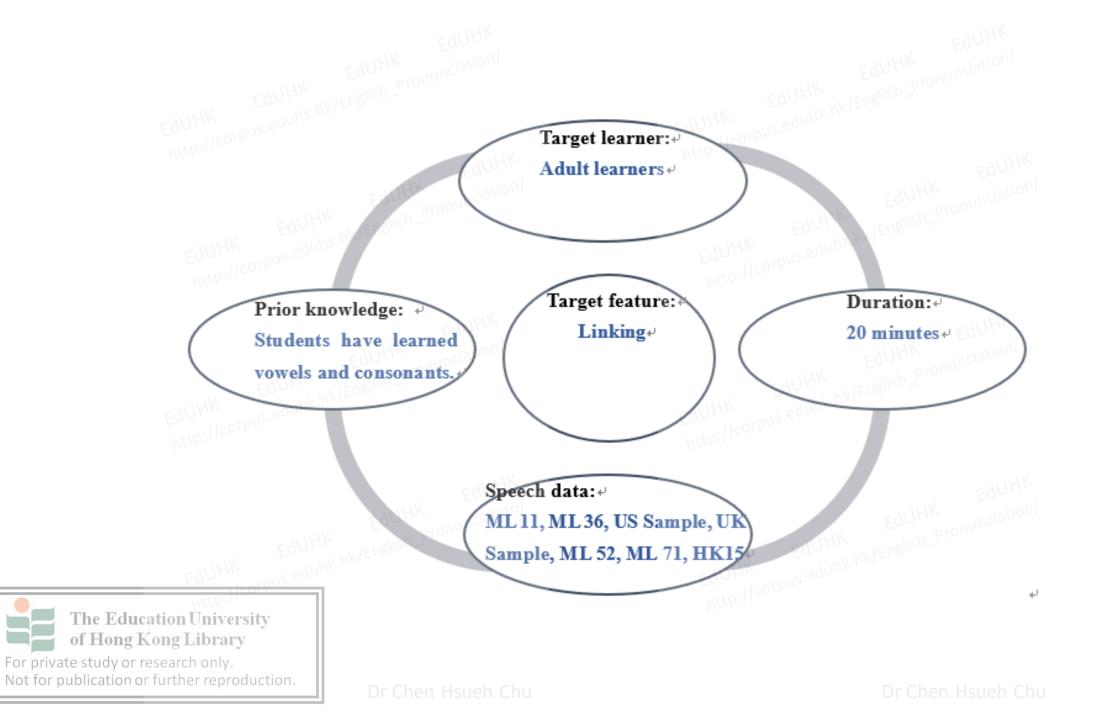
3. Integrate the **corpus data** into a **classroom activity** to help students remedy the target pronunciation feature.





4. Include the following elements:

- target feature
- target learner
- prior knowledge
- speech data from the corpus
- duration of the activity
- what the activity looks like



1. Feature discovery

Students listen to the recordings of ML 11, ML 36, and US and UK samples, (Sentence 5, Passage one in the Spoken English Corpus of Chinese and Non-Chinese Learners in Hong Kong) and find the differences between learners and native speakers.

The teacher then gives instructions and examples of CV linking.

2. Consolidation

Students listen to the recordings of ML 52, ML 71, HK 15, and check whether these speakers have the feature of absence of CV linking.

3. Production

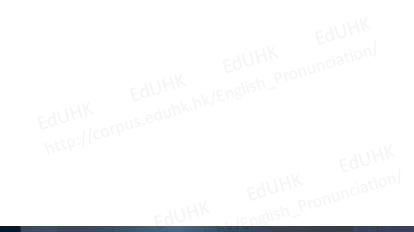
Students listen to the song "1000 hours" and try to find CV linking features in the song.

Students sing the song together and check whether they produce CV linking feature appropriately and correctly.



Do you love the rain Does it make you dance When you're drunk with your friends at a party What's your favorite song Does it make you smile Do you think of me When you close your eyes tell me what are you dreaming Everything I wanna know it all I'd spend 10,000 hours And 10,000 more Oh if that's what it takes to learn that sweet heart of yours And I might never get there But I'm gonna try If it's 10,000 hours Or the rest of my life I'm gonna love you Or the rest of my life I'm gonna love you





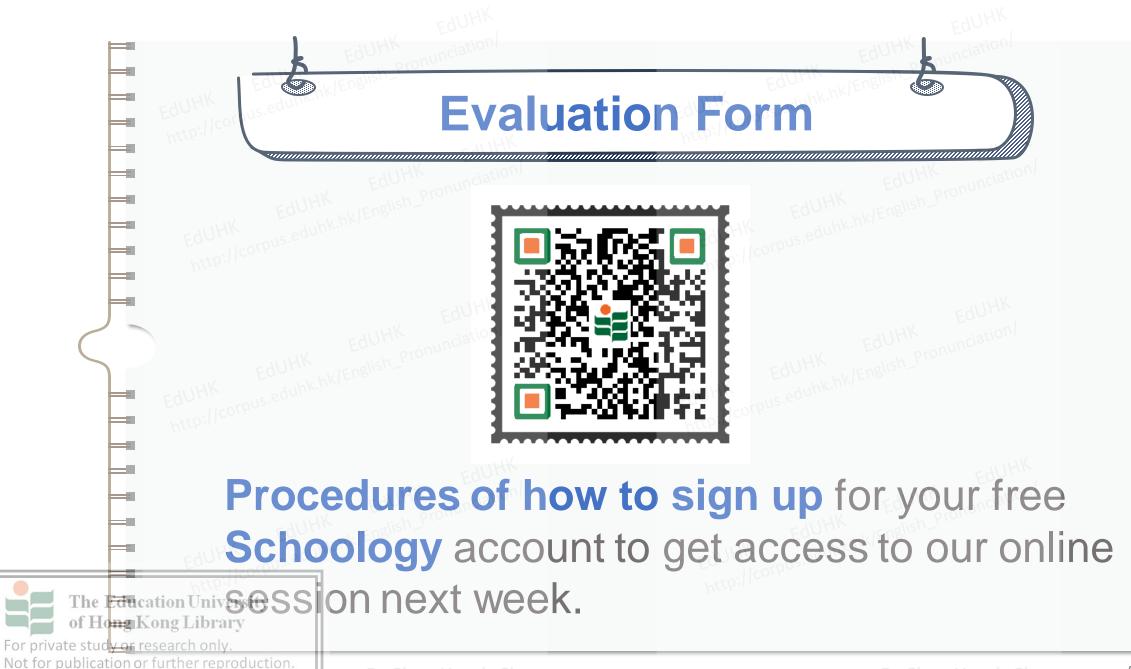


https://www.youtube.com/watch?v=Y2E71oe0aSM

### Dr Chen Hsueh Chu

### Scheduled Corpus-aided English Pronunciation Training Workshops and Online Lessons

EdUHK Topic		Date	Time	Venue
<b>Workshop I –</b> Introduction of spoken corpus, phonetics and phonology, and pronunciation features; Exploitation of corpus data to do phonological analysis of segmental features		23-Oct-2019 (Wed)	15:30pm-17:30pm	B4-LP-03
<b>Online Lesson I –</b> Basic concepts of spoken corpus, segmental system of English and pronun features; Phonological analysis of segmental features	ciation	25-Oct-2019 (Fri)	By 23:55pm	-
<b>Workshop II –</b> Exploitation of corpus data to do phonological analysis of suprasegrater (word stress, intonation); Introduction of speech rhythm, linking, pause, and speech rate	mental	30-Oct-2019 (Wed)	15:30pm-17:30pm	D3-LP-02
<b>Workshop III –</b> Discussion of the benefits of doing corpus-based analysis through speech and how we can use the findings in the language classroom	corpus	6-Nov-2019 (Wed)	15:30pm-17:30pm	B4-LP-03
<b>Online Lesson II –</b> Basic concepts of suprasegmental system of English, and pronunciation fea Phonological analysis of suprasegmental features	atures;	8-Nov-2019 (Fri)	By 23:55pm	-
<b>Workshop IV</b> Development of teaching materials for primary and secondary students; or Competitionsearch only.		20-Nov-2019 (Wed)	15:30pm-17:30pm	B4-LP-03
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### Instruction on Schoology

### Registration



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