British English-Speaking Speed 2020

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Abstract: It has been 30 decades since Tauroza & Allison measured the speed of British English in 1990 (Tauroza & Allisond, 1990). Has the speed of English speaking changed in this era of great development of thoughts and information explosion? Does the standard rate of oral English in EFL need to be adjusted accordingly? This paper analyses 200 speakers' 79 corpus with a total duration of 77 hours and 58 minutes in four categories of news monologues, interviews, conversations, and academic lectures in the UK from 2020 to February, 2021, and calculates the speech rate of contemporary British English. It is found that the average speaking speed of British English has reached 198 words per minute (17% faster by 28 words) and 265 syllables per minute (10% faster by 25 syllables). Accordingly, the standard speech rate of EFL teaching should be improved.

Keywords: British English, Speaking speed, EFL

1. Introduction

The purpose of EFL teaching is to enable learners to communicate without language barriers. Listening comprehension is the basis of oral communication. Speaking speed is an important factor in listening comprehension, as well as an important indicator of EFL teaching and assessment.

EFL learners, teachers, and researchers consider the speed of speech to be one of the key factors affecting listening comprehension (Boyle, 1984). A rate of between 150 to 190 words per minute (w.p.m.) has been given as the normal or average speed of delivery of English speech (Marslen-Wilson, 1973; Riding and Vincent, 1980: 262; Rivers, 1981: 173; Richards, 1983; Suenobu etal., 1986). Pimsleur's estimate of standard rates of speech was based singly on radio news announcers (Pimsleur, 1977), and their data included the speech rates of French-speaking radio news accouncers. Steve Tauroza and Desmond Allison (Tauroza & Allisond, 1990) analyzed four different types of situation (conversations, academic lectures, interviews, and radio monolog) to introduced speech rate of 170 words per minute and 240 syllables per minute (s.p.m).

Speech rate, pitch and loudness, forms the rhythm of each language. Among them, speech rate is considered as additional vocal value of a text and more difficult than pitch and loudness in EFL. (Hotimir Tivadar, 2017).

Nowadays, in EFL fields, the English-speaking rate measured in 1990 is still widely used as a basis in research and is the most recognized data in the industry. However, with the rapid development of today's era, advanced technologies such as artificial intelligence reflect the great leap of human wisdom. Since language is the product of social and intellectual activities of human, theoretically speaking, human language, such as the speech rate, should accordingly change with the human activities' progress.

Assuming compared with 1990, English speaking speed has changed magnificently, while the teaching and research staff continue to use the old speed data of the last century as the basis for teaching and assessment. Then once the learners use English in the actual environment, the "slow English" they learn will make them unable to keep up with the pace of modern British, which directly hinders listening comprehension. If they don't understand, they can't answer, then the communication failed. This is what EFL teachers and researchers least want to see, but the fact has already been proved by tens of thousands of oversea students.

To that end, this paper analyzes the newest corpus of 2020-2021 of modern British English with the methodology of 1990's research, and calculate the British English speech rate of 2020-2021 to update the data of thirty decades ago, and give a new insight for EFL policy makers, researchers, teachers, and learners to adjust the assessment, teaching and training target accordingly, so as to cultivate language

learners who keep pace with the times.

2. Méthodologie

2.1. Word counts

Word in this research refers to "a single unit of language that has meaning and can be spoken or written.—Cambridge English Dictionary 4th edition" (Colin McIntosh, 2013).

In terms of calculation, this research is very rigorous, with sufficient corpus, repeated proofreading of text and data, and done a lot of empirical work. Firstly, listen to the video, transcribe the text of the spoken language corpus, then re-listen to the video, repeatedly check the text and correct duration, and count the total number of words in each corpus verbatim. The corpus of BBC IPlayer can recognize and display English subtitles in real time using the built-in translation software, supported by the amazing achievements of modern science. However, machine recognition speech has a small number of errors and omissions, so the final text is determined by the researcher's listening comprehension and BBC IPlayer's voice intelligent translation software.

2.2. Syllable counts

Syllable is "a single unit of speech, either a whole word or one of the parts into which a word can be separated, usually containing a vowel. —Cambridge English Dictionary 4th edition" (Colin McIntosh, 2013). After the text of the corpus is transcribed and proofread, the total number of syllables is obtained by calculating the number of syllable nodes of each corpus.

2.3. Text types

In 1990, Steve Tauroza and Desmond Allison analyzed categories of Radio monologue, Conversation, Interviews, Lectures and then Combined total, by 30 separate minutes of speech from each category. No more than 3 minutes of the speech of any one speaker was analysed (Tauroza & Allisond, 1990).

For the purposes of favorable comparability, this study also selected the same type of text as the 1990 study: News monologues, Interviews, Conversations, Lectures and then Combined total. Though the name of "News monologues" is different from Tauroza's "Radio monologue", the text type is the same. The usage of the new name is because the corpus is from TV, YouTube, Zoom meeting and other modern medias instead of radio.

2.4. Comparability

(1) Corpus classification, duration and speakers

In 1990, a 30-minute sample of Radio monologues was taken from 6 hours and 50 minutes of radio news broadcasts and documentaries. The programs were produced by either the BBC World

Service or Radio and Television Hong Kong. The speech of 19 different radio broadcasters was sampled (Tauroza & Allisond, 1990).

In 2020, the 30-minutes sample of News monologues was taken from 23 hours of BBC One's news broadcasts and documentaries. The speech of 30 broadcasters was sampled.

Table 1: Comparison of Corpus Varieties of 1990 and 2020. ("mins" refers to minutes)

Category	1990	2020
News monologues	30-minute sample	30-minutes sample
	6 hours and 50 mins	23 hours
	19 broadcasters	30 broadcasters
Interviews	30-minute sample	30-minutes sample
	4 hours 45 mins	34 hours 12 mins
	48 speakers (8 female, 40 male)	62 speakers (28 female, 34 male)
Conversations	30-minute sample	30-minutes sample
	57 mins	414 mins
	59 speakers (27 female, 32 male)	74 speakers (39 female, 35 male)
Academic Lectures	30-minute sample	30-minute sample
	17 hours	13 hours 52 mins
	22 speakers (3 female, 19 male)	34 speakers (16 female, 18 male)

The comparison of corpus varieties of 1990 and 2020 are showed in Table 1.

(2) The technique of counting

In order to make the research data highly comparable, the technique of counting the speed of speech has been replicated from previous studies.

(3) Comparability

From the comparison of the parameters of each type of corpus in Table 1, it can be concluded that the speech rate calculation of this study is highly comparable to the speech rate of the 1990 study.

In order to make the values of the two studies comparable, this study keeps the research method in line with the 1990 research's, based on the same material classifications, durations, and the total number of speakers is roughly the same. The processing of details such as blank time periods in the corpus is also the same.

However, there are also slight differences. This study has been improved in gender equity. The ratio of male to female speakers in the 1990 study is quite disparity. Among 22 speakers for Lecture Category, there are only 3 female speakers (Tauroza & Allisond, 1990). But the data published by UK government shows that "In 2019, 75.8% of school teachers were women." (Department for Education, 2021). For equal's end, the ratio of male and female speakers was basically balanced.

2.5. Overlap in speech

In daily conversations and interviews, there are often situations where several people speak at the same time, that is, overlap. In order to make the calculation more accurate, the corpus selected avoids excessive overlap. Only an total overlap of no more than 2 seconds appeared in two corpus, and the overlapped words and syllables are counted, but because the number is too small, it will not affect the total result.

3. Procedure

The speakers of the corpus used in this study are all local native speakers in the UK.

3.1. Selection and classification of corpus

Select the following 4 types of corpuses:

(1) News monologues

(2) Interviews

(3) Conversations

(4) Academic Lectures

The study's interest in listening comprehension materials used in the teaching of English as a foreign language provided the main motivation for the investigation. Therefore, data collection was limited to varieties of speech which EFL learners would be required to listen to whilst studying on language courses. There are three sources of the corpus used in this study. The widely used teaching and training materials of British English is the programs of BBC, so the main sources of the corpus are selected from BBC IPlayer in 2020 to February, 2021. The second source of corpus is from YouTube. The third source is daily life's conversations in the UK.

3.2. Corpus description

In order to unify the standard, each category of corpus is intercepted and analyzed with a total length of 30 minutes.

(1) News monologues

The first type of corpus is British local TV news, and the source of the material is BBC IPlayer TV news programs. Take 30 minutes from 1380 minutes of corpus. Thirty pieces of corpus with a duration of 1 minute for each are selected. There are 30 speakers, all British broadcasters, including 22 female speakers and 8 male speakers.

(2) Interviews

The second type of corpus is British TV news interviews, and the source of the material is the BBC IPlayer TV news program. Take 30 minutes from the 2052-minute corpus. Twenty-seven pieces of corpus with a duration of 1 minute or 2 minutes for each were selected. If the interviewer and the interviewee are both one person, then one minute of corpus is intercepted. If the number of interviewers is more than 2 persons, a 2-minute corpus will be intercepted to ensure the speaking time of each speaker to achieve a more objective calculation result. There are 62 speakers in total, the hosts are all British announcers, and the interviewees are people from all walks of life in the UK. Among them, 28 are female speakers and 34 are male speakers.

(3) Conversations

The first two types of corpus are monologues and dialogues in formal occasions. There are two sources of materials. The first source is BBC IPlayer TV shows and TV series, and the second source is real conversations in the UK. The third type of corpus is dialogue in informal style. Take 30 minutes from 414 minutes of corpus. Seven pieces of corpus were selected. Since multiple speakers participated in each piece of corpus, the duration of the materials varied from 1.5 minutes to 5 minutes in order to ensure the length of speaking time of each speaker. There are 74 spokespersons in total. The spokespersons are from all walks of life in the UK, including 39 female speakers and 35 male speakers.

(4) Academic Lectures

The fourth type of corpus is real teaching corpus. There are three sources of materials. The first source is lectures by British teachers from 13 famous universities in the UK published by Youtube. The audience is native English speakers. The second source is a lecture by a British teacher at Loughborough University, and the audience is non-native speakers of English. The third source is the live video of the teaching of various subjects in the British senior schools in the BBC IPlayer TV program, including the natural interaction between British teachers and students in the classroom. Take 30 minutes from 832 minutes of corpus. 15 pieces of corpus are selected, and the duration of each piece of corpus is 2 minutes. There are 34 speakers, and the speakers are British teachers and students. Among them, there are 16 female speakers and 18 male speakers.

In the selection of teaching materials, the researcher advocate selecting the teaching materials at normal speech rate, because the purpose of EFL teaching is to cultivate target language users who can achieve successful communication. In order to ensure that the learners can understand the teacher's teaching in the school of the target language country, learners must be trained with the normal speaking speed of the local teaching of the target language country. Therefore, for the fourth category's corpus, the audience of teaching corpus should be both native and non-native speakers of English. To that end, the author chose 13 lectures with English university audiences as native English speakers, 1 lecture with non-native speakers of English as English university audiences, and 1 corpus of teacher-student interaction in English senior school classroom teaching.

(5) Summary

To sum up, this paper analyzes four categories of corpus of news monologues, interviews, conversations, and academic lectures in the UK from 2020 to February, 2021, selects 120 minutes duration of 70 corpus from 4678 minutes corpus of 200 British native speakers, including 105 female and 95 male speakers, and transcripts 23,601 words and 40,078 syllables to calculate the speech rate of contemporary British English.

Table 2 Description of corpus.

No.	Category	Total corpus time (mins)	Selected corpus duration (mins)	Number of Corpus	Duration of each corpus (mins)	Female	Male	Words	Syllables
1	News	1380	30	30	1	22	8	5945	8600
2	Interview	2052	30	27	1-2	28	34	5925	8085
3	Conversation	414	30	7	1.5-5	39	35	6555	7336
4	Lecture	832	30	15	2	16	18	5176	7457
	Combined	4678	120	79	/	105	95	23,601	40,078

It is found that the speed of it is faster by an average of 28 words and 25 syllables per minute than 30 years ago. In 2020, the average speaking speed of British English has reached 198 words per minute and 265 syllables per minute, accordingly the standard speech rate of EFL teaching should be improved. The basic situation of the four categories of corpus is shown in Table 2.

In order to ensure the accuracy of the speech rate calculation, the researcher removed the silence time of more than 2 seconds in the corpus, which was not within the calculation time of the speech rate.

This research did not strictly distribute various age and occupation background of the speakers, but tried to take into account of those factors when choosing corpus. In this study, there are 105 female speakers and 95 male speakers of different ages from 10-80 years old. The backgrounds of the speakers include teachers, students, politics, law, the press, firefighting, medical, catering, economics, finance, performing arts, etc.

4. Results

In this part, the author will describe the calculation data and analyze the calculation results. The calculation results of this study are rounded up, and the integer part is retained.

Table 3 shows the total average speaking speed of the four categories of corpus. The statistical results are listed according to the number of words per minute and the number of syllables per minute. The combined average speaking rate of British English is calculated as 198 words or 265 syllables per minute.

Table 3 Mean number of words per minute (w.p.m.) (word per minute), syllables per minute (s.p.m.) (syllables per minute) in the different categories of speech.

Category	w.p.m.	s.p.m.
News	198	287
Interview	197	269
Conversation	222	254
Lecture	173	249
Combined	198	265

Table 4 shows the average number of words per minute of the four categories of corpus, as well as the fastest and slowest speaking rate by words in the corpus.

Table 4 Summary of data for speech rates of spoken English by words per minute

Words per minute	Mean	Range
News	198	152-241
Interview	197	140-236
Conversation	222	187-261
Lecture	173	125-247
Combined	198	125-261

Table 5 shows the average number of syllables per minute of the four categories of corpus, as well as the fastest and slowest speaking rate by syllables in the corpus. Both the fastest (175 syllables) and slowest (326 syllables) syllable-speed is in "Lectures" category.

Table 5 Summary of data for speech rates of spoken English by syllables per minute

Syllables per minute	Mean	Range
News	287	231-325
Interview	269	201-324
Conversation	254	219-289
Lecture	249	175-326
Combined	265	175-326

Figure 1 compares the average number of words spoken per minute in English spoken English in 1990 and 2020. The calculation results of both studies are rounded up and the integer part is retained. In 1990, the average word speed of British English was 170 (Tauroza & Allisond, 1990), and in 2020 it was 198. On average, the speech rate of 2020 is 17% faster by 28 words per minute faster than 1990.
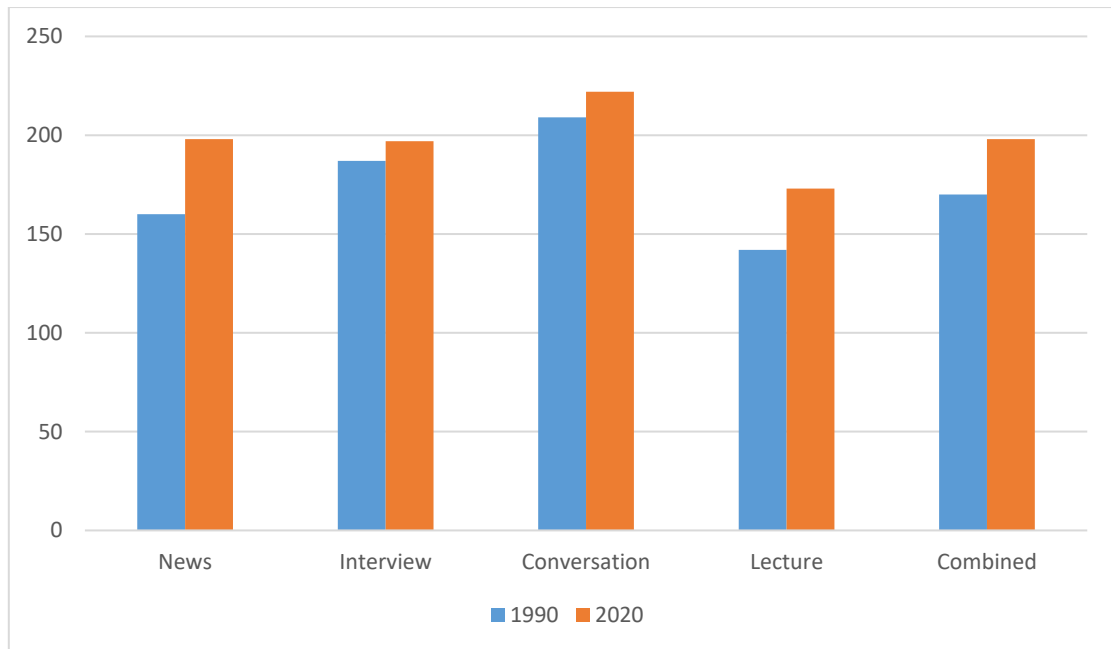
Figure 1 Comparison of mean speed by words per minute of 1990 and 2020

Figure 2 compares the average number of syllables spoken per minute in English spoken English in 1990 and 2020. The average syllable speed of English in 2020 is 10% faster by 25 syllables per minute faster than 1990.
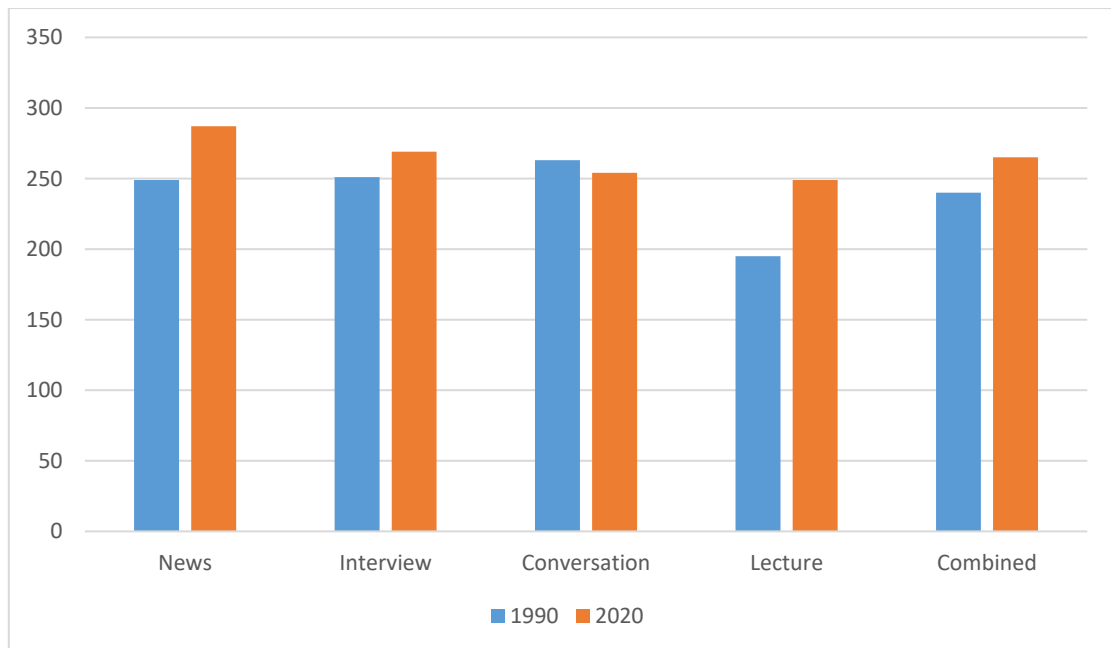

Figure 2 Comparison of mean speed by syllables per minute of 1990 and 2020

5. Discussion

From the results and comparison, we can clearly see that in the 30 decades from 1990 to 2020, the speaking speed of British English has been significantly accelerated by an average of 28 words (17%) and 25 syllables (10%) per minute. In 2020, the average speaking speed of British English reached 198 words per minute and 265 syllables per minute.

This evidence verifies that language rate is changing according to the pace of human activities. Nowadays, we are in the brace of the information explosion, machine learning, big data, global supply chain, and the communication and ties around the world have reached an unprecedented degree of

closeness, all of which stimulate the explosion and wide open of human thoughts. Under such stimulate, our speech rate is increasing magnificently through the thirty years.

That faster speech rate shows an accelerate life pace and the development of our human society, but it also brings difficulties for the second language learners. The English teachers are still using the old standard to train the second language learners. Both the teachers and the learners are speaking at a slow speed of English in their classrooms and in their home country, sometimes even slower than the standard. Then under the comfortable teaching and learning speed zone, they actually acquire a kind of "fake" English, here it refers specifically to the listening and speaking of English for the second language learners. Listening comprehension depends on a complex voice which are consists of a variety factors of the speech rate, tone, accent, rhythm, pronunciation, words, etc. If any one factor of these is lacked, the whole pack is invalid, which means if the learners are used to listen and speak a slow English, then when they listen to normal speed of English, the listening comprehension will be a total failure.

There is an old saying in China, "Pull one hair and you move the whole body." The role of speech rate to listening comprehension is the hair to the body in second language learning. That's one of the reasons why millions of second language learners in China are totally confused when they listen to the real English daily life conversations. Yes, then they can practice hard according to the real English speech rate to make up, but the confusion actually shows the failure of oral English teaching.

What the EFL teachers should do is to teach and train the learners with appropriate speech English speed in their classrooms, to cultivate qualified students, and to make them a ready communicator through the school training, instead to leave them to learn again with a proper way after they are shocked with the communication failure with the native speakers. To this end, to set a newest standard speech rate is urgent and necessary for the EFL researchers, teachers and second language learners.

There is a misunderstanding, that is we train the listeners with materials of slow speech rate, in order to allow them to distinguish every pronunciation of the audio. That's a good way as the first step to practice English listening for very beginning learners. But people are like to stay in a comfortable zone. After they begin to get used of the slow speed rate, often they forget or reluctant to get out of the comfortable zone to face the real normal speed. And they stay and continuously practice with the slow speech rate materials with different contents again and again, then they think they are practicing listening very hard. Tragically, some lucky dogs of them are suddenly woke up until they had to communicate with the native speakers. But that's too late for the teachers to save up. Actually, it's a common phenomenon in nowadays second language learning in China.

What they should do now is to step that comfortable zone, to turn back to their original goal, to get used to the real English speech rate. To that end, the reform of the oral English teaching and training for EFL are necessary and urgent. We should update the speech rate of English in the assessment of EFL, select test materials of the newest, use the newest materials with standard speech rate as the training corpus, and the speech rate of the second language teachers should keep no less than 125 words per minute which is the slowest speech rate of the British English lectures, and the average speech rate of second language lectures should be 173 words per minute, which is the mean speech rate of the British English lectures.

6. Conclusion

Nowadays, most teachers are willing to pay much attention to the colorful teaching strategies and other variety of methods of EFL, but we should never neglect the original heart which is to help the learners to follow up the native speakers' speech.

The times are developing, thinking is exploding, and to our surprise, the speech rate is increasing by 17% accordingly. The results and discussion have clearly showed that the average speaking speed of British English reached 198 words per minute and 265 syllables per minute in 2020, and the speech rate has been significantly accelerated by an average of 28 words and 25 syllables per minute, compared with thirty decades ago in 1990.

Listening comprehension has been a long-held headache for English learners in China. We hope it will be a fresh start for EFL policy makers, teachers and learners to solve this deep-seated problem from adjusting the speech rate in the new syllabus and evaluation standards, reselect contemporary listening materials with an average speech rate of 198 words per minute, to speed up the teachers' speech rate to an average of 173 words per minute in EFL classrooms.

Acknowledgements

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