

Speech Disfluencies of Non-Native Speakers of English in TED Talk Scripts

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Abstract: *To speak fluently in the target language, English, has remained a challenge for learners, particularly those who are non-native speakers of English. When speaking, therefore, learners should be aware of speech disfluencies. This paper, accordingly, investigates the speech disfluencies of non-native speakers in their presentations. Data were collected from TED Talk scripts and were then analysed and discussed, based on categories of disfluency. The findings of this document analysis reveal five types of disfluency in the data, namely unfilled pause, filled pause, repetition, deletion, and substitution. It is expected that learners of English at university level can benefit from the study results concerning speech disfluencies to improve their speaking proficiency.*

Keywords: *Disfluency; filled pause; non-native speaker; TED talk*

INTRODUCTION

Speech fluency is the fundamental factor in daily communication. Fluency refers to a general oral proficiency in a given language, be it native or foreign (Gürbüz, 2017). Since English has become a lingua franca in many parts of the world, people are supposed to be able to speak English. However, speaking fluently in English has remained a challenge for learners, particularly learners who are non-native speakers, because their first language is not English. As a result, disfluency might occur in their speaking.

Disfluencies are “phenomena that interrupt the flow of speech and do not add propositional content to an utterance” (Tree, 1995, p.709), such as filled pauses, silent pauses, corrections, and repetitions. It is estimated that six in every hundred words are affected by disfluency (Bortfeld et al., 2001; Tree, 1995). “The frequency of disfluency increases when speakers are planning utterances” (Beattie, 1979; Clark & Tree, 2002; Clark & Wasow, 1998), at significant breaks in discourse structure (Swerts 1998; Swerts & Geluykens, 1994), and when speakers are unsure of the answer to a question (Brennan & Williams, 1995; Smith & Clark, 1993) or must choose between a number of alternatives (Schachter et al., 1991; Schachter et al., 1994). Disfluency also increases when speakers experience difficulty with a specific aspect of their utterance (Heller et al., 2015).

Regarding the importance of speaking fluently, learners should be aware of their disfluency in order to minimise its occurrence. This study investigates the speech disfluencies of non-native English speakers in their presentations. Studies have already been conducted that investigate speech disfluencies among non-native English speakers (Abimanto et al., 2021; Alghazali, 2019; Altiparmak & Kuruoglu, 2018; Bailoor et al., 2015; Enxhi et al., 2012). However, to our knowledge, a speech

disfluency study which uses TED Talks as the subject has not yet been conducted. Even though TED Talks have been the subject of some studies (Abdulrahman, 2018; Achaleke, 2022; Yaqin & Athena, 2022; Bataineh & Al-refa'i, 2019; Damayanti & Sumarningsih, 2022; Sari et al., 2021; Nguyen & Boers, 2018; Sanjmyatav & Sumiya, 2020; Stognieva, 2019; Tilwani et al., 2022; Wu, 2020), they discuss the use of TED Talks only as a learning source to enhance learners' English skills. As an English language learning source, TED Talks are considered likely to provide good examples for learners, although, in fact, the speakers might still produce speech disfluencies. Therefore, it is essential for learners to be aware of speakers' speech disfluencies so that they can minimise such occurrences when they themselves speak English.

The data from TED Talk scripts are analysed by adapting speech disfluency types proposed by Shriberg (1994) and Bailoor et al. (2015). TED (Technology, Entertainment, Design) is a non-profit association that spreads ideas in the form of talks. It provides a website of recorded conference presentations (TED Talks) covering almost all topics, such as education, science, and business, in more than 100 languages. TED Talks is claimed to have over a billion online views.

In this study, the researchers formulated the following question: What speech disfluencies occur in non-native English speakers' presentations in TED Talks? The results would be beneficial in helping learners, especially non-native English speakers, to recognise their disfluencies so that they can minimise occurrences of them in their speech.

LITERATURE REVIEW

There are many different views on fluency. For instance, Fillmore (1979, p.93) proposes a broad view of fluency which focuses on several aspects, such as: "The ability to talk at length with few pauses, the ability to talk in coherent [sentences]..., the ability to have appropriate things to say ..., and the ability some people have to be creative ..."

Producing fluent speech "is an important component of speaking proficiency for non-native speakers as defined in the Common European Framework of Reference for Languages" (CEFR; Council of Europe, 2001). However, it still remains challenging for learners of English to be able to speak fluently. "Non-native speech is reported to contain more disfluencies than native speech" (e.g., Cucchiarini et al., 2000). Liyanage and Gardner (2013) mention three markers of disfluency that are widely discussed in the research literature on fluency. These are various silences, filled pauses, and self-repairs. Mostly, researchers identify the frequency of the occurrence of those features as contributing to disfluency.

Several factors influence the production of disfluency. Bortfeld et al. (2001) find that not only age and gender have an effect, but also the speaker's conversational role and conversational partner. Additionally, disfluency production might occur before linguistic content with a higher cognitive load (Bosker, 2014). "This causes disfluencies in a spontaneous speech to follow a non-arbitrary distribution: they tend to occur before longer utterances" (Oviatt, 1995; Shriberg,

1996), before unpredictable lexical items (Beattie & Butterworth, 1979), before low-frequency colour names (Levelt, 1983), open-class words (Maclay & Osgood 1959), names of low-codability images (Hartsuiker & Notebaert, 2010), or at significant discourse boundaries (Swerts, 1998). Also, talking about an unfamiliar topic (Bortfeld et al., 2001; Merlo & Mansur, 2004) or at a higher pace (Oomen & Postma, 2001) increases the likelihood of disfluencies. Another factor influencing disfluency is context. There is a higher possibility of disfluency when talking in dialogue vs. monologue and humans vs. computers (Oviatt 1995). Moreover, “in contexts where there are multiple reference options to choose from, such as in case of low contextual probability” (Beattie & Butterworth, 1979) or multiple reference options (Schnadt & Corley, 2006). Commonly, disfluency occurs during spontaneous conversations among people (Shriberg, 2001).

Previously, Sanjaya and Nugrahani (2018) conducted a study on disfluency. This study examined speech disfluency produced by English education master’s students at Sanata Dharma University, Yogyakarta, Indonesia. It concluded that the master’s students continued to produce speech disfluency in their oral communication. Filled pauses had the largest number of occurrences in their speech. The study focused on investigating speech disfluencies occurring in formal presentations among non-native English speakers. The speakers might have prepared their presentations; however, they still produced speech disfluencies. Researchers propose are several types of disfluency, based on their studies. Postma et al. (1990) categorise disfluency as “repetitions, prolongations of sounds, blocking on sounds, and interjections of meaningless sounds”. Meanwhile, Shriberg (1994) and Bailoor et al. (2015) propose seven disfluency types: unfilled pause, filled pause, repetition, substitution, deletion, insertion, and articulation errors. This study adapted five types of disfluency, namely the unfilled pause, filled pause, repetition, substitution, deletion (Shriberg, 1994; Bailoor et al., 2015). The researchers in the current study consider that these five disfluencies cover all data categorised as speech disfluencies collected from the TED Talk presentation scripts.

RESEARCH METHOD

The current researchers have employed document analysis as the method to analyse disfluency produced by non-native English speakers. Document analysis is a method in which the researchers utilise written or visual materials to identify specified characteristics of material or a project, focusing on analysing and interpreting recorded materials within their context (Ary et al., 2010). In this study, the documents were TED Talk presentation scripts delivered by four non-native English speakers. The length of the presentations was between 15 and 25 minutes. Speakers were chosen because they were from non-English speaking countries.

There were several steps in gathering the data. Firstly, the researchers watched the presentation videos and downloaded the scripts from ted.com. Secondly, the researchers watched the videos several times while writing down the speakers’ disfluencies on the scripts. Thirdly, the researchers collected and analysed the disfluencies. Fourthly, they compiled tables which consisted of speech disfluency types, namely the unfilled pause, filled pause, repetition, deletion, and substitution. Fifthly, the researchers calculated the occurrences of each disfluency type.

In analysing the data, the researchers took the following steps: first, organising the collected data, namely speech disfluency types produced by non-native English speakers during their presentations in TED Talks. The source data were the videos and scripts of their presentations. Second, the researchers coded all of the data, assigning the disfluencies produced by the speakers into several categories (Creswell, 2014) based on speech disfluency types as proposed by Shriberg (1994) and Bailoor et al. (2015). Third, the researchers created tables illustrating disfluency types and evidence from the scripts. Lastly, the researchers discussed the findings and interpreted the speakers’ disfluencies.

FINDINGS AND DISCUSSION

After analysing the data, the researchers found five types of disfluency produced by the non-native English speakers. The first speaker, who spoke for 20:23, minutes produced nine unfilled pauses, 52 filled pauses, 62 repetitions, and three substitutions. The second speaker, who talked for 22:16 minutes, produced three unfilled pauses, 59 filled pauses, 31 repetitions, six deletions, and five substitutions. The third speaker, who spoke for 17:32 minutes, produced seven unfilled pauses, 65 filled pauses, 15 repetitions, and two substitutions. The fourth speaker, who talked for 21:19 minutes, produced ten unfilled pauses, 71 filled pauses, 46 repetitions, 11 deletions, and eight substitutions. The overall findings are presented in Table 1 below.

Table 1. *Speech Disfluencies of Non-native English Speakers*

| Disfluency Type | Frequency |
|------------------------|------------------|
| Unfilled pause | 29 |
| Filled pause | 247 |
| Repetition | 154 |
| Deletion | 17 |
| Substitution | 18 |

Based on the findings, it can be seen that the disfluency type “filled pause” returns the largest number of occurrences when the speakers were delivering the presentations. The total number of occurrences of this type of disfluency was 247. The second largest number of occurrences was repetition, with a total of 154 occurrences. The unfilled pause became the third largest category of speech disfluency, with a total of 29 occurrences. The last two speech disfluencies that the speakers produced were substitution, with 18 occurrences in total, followed by deletion with 17 occurrences in total.

In the following sections, the study provides a more specific explanation of each disfluency type. There are five types of speech disfluency produced by the speakers. The study provides evidence of speech disfluency by presenting the tables that contain the examples collected from the scripts. Additionally, the study explains the probable reasons for the disfluencies produced by the speakers.

Unfilled Pause

One of the disfluency types was an unfilled pause. In this disfluency type, speakers uttered no single word. They remained silent for a period “longer than the

pauses in an equivalent fluent utterance” (Fraundorf & Watson, 2014, p.1083). Examples of speakers’ unfilled pauses are presented in Table 2.

Table 2. *Examples of Speakers’ Unfilled Pauses*

| Disfluency Type | Example |
|-----------------|---|
| Unfilled Pause | 1. <i>Let me...give some of the background of what fish means for us.</i> |
| | 2. <i>Has our ability to meet those aspirations...risen as well?</i> |
| | 3. <i>“Imagine what it does to...a street kid in Calcutta, who has to help his family during the day, and that’s the reason he or she can’t go to school.</i> |
| | 4. <i>Now, we we...did everything we could to convince Melquiades to take his medicines, because it’s really hard.</i> |
| | 5. <i>We now have...on on the order of of 2,200 videos, covering everything from basic arithmetic, all the way to to vector calculus, and some of the stuff that that you saw up there.</i> |
| | 6. <i>You have this situation where...now they can pause and repeat their cousin, without feeling like they’re wasting my time.</i> |
| | 7. <i>We don’t want...ee something to happen that they are forced to migrate without having been prepared to do so.</i> |
| | 8. <i>And aa and today, I want to..., well, ee share with you something I love, and also why.</i> |
| | 9. <i>“Um...first thing I’m going to do is to make a sine wave oscillator, and we’re going to call the sine wave generator ‘Ge’.</i> |
| | 10. <i>Well, we...we’re on the equator, and I I’m sure many of you understand that when you’re you’re on the equator, it’s supposed to be in the doldrums.</i> |

“Let me... give some of the background of what fish means for us”.
(Example 1)

“Has our ability to meet those aspirations... risen as well?”
(Example 2)

“Imagine what it does to... a street kid in Calcutta, who has to help his family during the day, and that’s the reason he or she can’t go to school”. (Example 3)

Most of the speakers produce unfilled pause because they do not have any idea what to say afterwards. As shown in those six examples, the speakers seem confused about the following utterances. In examples 1, 2, and 3, the speakers are silent for a moment because they are uncertain about the next word they should say. This silence affects the smooth flow of the speech (Bailoor et al., 2015).

“Now, we we... did everything we could to convince Melquiades to take his medicines, because it’s really hard”. (Example 4)

“We now have... on on the order of of 2,200 videos, covering everything from basic arithmetic, all the way to to vector calculus, and some of the stuff that that you saw up there”. (Example 5)

In example 4, the speaker even produces a repetition before being silent. On the other hand, example 5 shows the speaker’s word repetition after the unfilled pause. These two speakers seem still confused about the idea of their utterances. They are considered unfilled pauses since the silence lasts longer than two seconds (Jefferson, 1989).

“You have this situation where... now they can pause and repeat their cousin, without feeling like they’re wasting my time”. (Example 6)

Meanwhile, in example 6, the speaker changes the idea of the utterance after producing an unfilled pause. The speaker’s last word in the beginning utterance “where” is not related to the first word of the following utterance “now.” This might happen because the speaker utters the wrong idea at first.

“We don’t want... ee something to happen that they are forced to migrate without having been prepared to do so”. (Example 7)

“And aa and today, I want to..., well, ee share with you something I love, and also why”. (Example 8)

In examples 7 and 8, after producing unfilled pauses, the speakers insert filled pauses, namely “ee” and “well”. They want to continue their speaking, but it seems that they are unsure about the next idea. Corley and Stewart (2008) claim that speakers are not confident when their utterances are preceded by silence, even less confident if that silence contains a filler.

“Um... first thing I’m going to do is to make a sine wave oscillator, and we’re going to call the sine wave generator ‘Ge.’” (Example 9)

On the other hand, in example 9, the speaker also produces an unfilled pause, but it happens before the filled pause. In this case, he/she tries to recall what he/she is going to say. Thus, instead of uttering the sentence directly, he/she has a filled and unfilled pause.

Filled Pause

The speakers do not produce only unfilled pauses. In their presentations, they also exhibit filled pause. According to Pamolango (2016), there are two kinds of filled pause, namely non-word-filled pauses, such as um, uh, hmm, and em, and phrase-filled pauses, including all right, you know, I mean, and well. Both kinds of filled pauses occur both in the initial and final positions of the utterances (Gryc, 2014). Examples of the speakers’ filled pauses can be seen in Table 3.

Table 3. Examples of Speakers’ Filled Pauses

| Disfluency Type | Example |
|-----------------|--|
| Filled Pause | 1. <i>Um so it’s not about getting two feet.</i> |

2. *All right, so if I were to play this – (Tone) – you would hear a sine wave at 440 hertz for two seconds.*
3. *And so you can imagine, here I was, aa aa an analyst at a hedge fund – ee it it was very strange for me to do something of social value.*
4. *The the tuna fishery is really entirely for the foreign market, mostly here in the US, um Europe, um Japan.*
5. *There were demonstrations just down the street from our house all the time, students ee protesting against ee the military government.*
6. *Aa aa assuming he was good. We don't know.*
7. *Okay, great, now I can imagine creating all kinds of really horrible single sine wave pieces of music with this, but I'm going to do something that computers are really good at, which is repetition.*
8. *And this was designed you know to let you take your time and figure out where your expressive space is, and aa you can just hang out here for a while, for a really dramatic effect, if you want, and whenever you're ready.*
9. *And they said, well, that's a nice thought but it's just not cost-effective.*
10. *Um and yeah, you can start becoming a mentor, a tutor, aa aa really really immediately.*

“Um so it's not about getting two feet”. (Example 1)

“All right, so if I were to play this – (Tone) – you would hear a sine wave at 440 hertz for two seconds”. (Example 2)

“And so you can imagine, here I was, aa aa an analyst at a hedge fund – ee it it was very strange for me to do something of social value”. (Example 3)

In examples 1, 2, and 3, the speakers produce three kinds of filled pauses, namely and, um, and all right. The three filled pauses are followed by so. So is one of the most frequently used filled pauses. Gryc's (2014) study also shows that so is the most frequently used filler in academic activities, including seminars and lectures. Most of the speakers tend to use so in their utterances before they say the following sentences. As seen in the three examples above, the filled pauses appear at the beginning of the sentences. This is in line with other studies which conclude that mostly filled pauses or fillers occur at the beginning of a phrase or an utterance (Barr, 2001; Maclay & Osgood, 1959).

“The the tuna fishery is really entirely for the foreign market, mostly here in the US, um Europe, um Japan”. (Example 4)

“There were demonstrations just down the street from our house all the time, students ee protesting against ee the military government”. (Example 5)

“Aa aa assuming he was good. We don't know”. (Example 6)

Besides producing phrase-filled pauses, the speakers also have non-word-filled pauses, such as um, ee, and aa, as shown in examples 4, 5, and 6. Mukti and Wahyudi (2015) note that the use of non-word-filled pauses, such as um, indicates readiness to open a new topic, sentence, or point of the talk. As shown in example 4, the speaker produces um when he/she mentions a certain name of a country when giving an example. Meanwhile, in example 6, the speaker produces aa before saying a sentence. This means that the speaker is ready to begin a new sentence in his/her presentation.

Repetition

The next speech disfluency that occurs in the speakers’ presentations is repetition. In this case, the speakers produce unmodified repetitions of a word, a part of a word, or a string of words (Fraundorf & Watson, 2014). The current researchers provide examples of repetition in Table 4 below.

Table 4. *Examples of Speakers’ Repetition*

| Disfluency Type | Example |
|-----------------|---|
| Repetition | 1. “As valuable as that is in Los Altos, imagine what it does to the adult learner, who’s embarrassed to go back and and learn stuff they should have known before before going back to college”. |
| | 2. “I put them on YouTube just just – I I saw no reason to make it private, so I I let other people watch it, and then people started stumbling on it”. |
| | 3. Jeff is one of the ones who who made it happen”. |
| | 4. “ I I guess by definition, it’s it’s kind of computer music”. |
| | 5. “We’ve got to be very, very careful because the technology has so improved”. |
| | 6. “Well, we eat fish every day, every day , and um I think there is no doubt that our rate of consumption of fish is perhaps the highest in the world”. |
| | 7. “Let’s let’s pause here”. |
| | 8. “And I think that the the catch here is that, at least to me, computer music isn’t really about computers”. |
| | 9. “Ee there was there was serious drought, and the people could not continue to live on the island, and so they were moved to to live here in the Solomon Islands”. |
| | 10. “But then, as as the viewership kept growing and kept growing, I I started getting letters from from people, and it was starting to become clear that it was more than just a nice-to-have”. |

*As valuable as that is in Los Altos, imagine what it does to the adult learner, who’s embarrassed to go back and **and** learn stuff they should have known before **before** going back to college. (Example 1)*

*“I put them on YouTube just **just** – I **I** saw no reason to make it private, so I **I** let other people watch it, and then people started stumbling on it”. (Example 2)*

“Jeff is one of the ones who **who** made it happen”. (Example 3)

“I I guess by definition, it’s **it’s** kind of computer music”. (Example 4)

As can be seen in examples 1, 2, 3, and 4, the speakers produce repetition in their utterances. From the examples, it can be inferred that the speakers repeat their words because they are unsure what they will say afterwards. It seems that they are still thinking about the next idea to say (Bock & Levelt, 1994).

“We’ve got to be very, **very** careful because the technology has so improved”. (Example 5)

“Well, we eat fish every day, **every day**, and um I think there is no doubt that our rate of consumption of fish is perhaps the highest in the world”. (Example 6)

On the other hand, examples 5 and 6 indicate that the speakers repeat their words to emphasise the idea within their speaking (Sanjaya & Nugrahani, 2018). In example 5, the speaker repeats the word very to strongly advise the audiences that they should be aware of technology improvement. Example 6 shows how the speaker informs the audiences about the people who eat fish every single day by repeating the word *every day*.

Deletion

The other disfluency type produced by the speakers in their presentations is deletion. Deletion is when the speakers suddenly stop speaking but then start over with some new words or phrases (Engelhardt et al., 2013). The following, Table 5, presents examples of the speakers’ deletion.

Table 5. Examples of Speakers’ Deletion

| Disfluency Type | Example |
|-----------------|--|
| Deletion | 1. “ And I They don’t understand”. |
| | 2. “And he I was nominated, and I walked through the door of the World Bank Group in July of 2012”. |
| | 3. “ You if we move back, we will fall off on the other side of the ocean”. |
| | 4. “ We I was in a meeting with the Pacific Island Forum countries um where Australia and New Zealand are also members, and we had an argument”. |
| | 5. “Um there is um as you go into another community, there are bound to be changes”. |
| | 6. “This is not my mother, but in the during the Korean War, my mother literally took her own sister, her younger sister, on her back, and walked at least part of the way to escape Seoul ee during the Korean War”. |
| | 7. “Now, how what are we going to do?” |
| | 8. “I studied both of them at the in in graduate school”. |
| | 9. “ On usually not more than two kilometres in in width”. |
| | 10. “We have ee 25 billion a year that we’re investing in poor countries, and as we in the poorest countries”. |

“And I They don’t understand”. (Example 1)

“And he I was nominated, and I walked through the door of the World Bank Group in July of 2012”. (Example 2)

“You if we move back, we will fall off on the other side of the ocean”. (Example 3)

“We I was in a meeting with the Pacific Island Forum countries um where Australia and New Zealand are also members, and we had an argument”. (Example 4)

Based on examples 1, 2, 3, and 4, the speakers produce deletions at the beginning of their sentences. All of the deletions are pronouns, namely I, he, you, and we, which become the subjects of the sentences. However, it seems that they use the wrong pronouns when expressing their ideas. Thus, they omit those pronouns and use other pronouns, the correct ones. Even in example 3, the speaker not only changes the previous pronoun with another, but he/she begins the sentence with a conjunction, if, instead of directly using a pronoun. As shown in these examples, the speakers tend to correct their mistakes directly after an articulation (Li & Tilsen, 2015).

“Um there is um as you go into another community, there are bound to be changes”. (Example 5)

In example 5, the speaker produces not only deletion but also filled pauses, namely um. The filled pauses are positioned between an omitted phrase, namely there is. Usually, the speakers produce filled pauses while they are thinking of replacing the previous words (Sanjaya & Nugrahani, 2018). Example 5 shows how the speaker changes there is to as you go.

“This is not my mother, but in the during the Korean War, my mother literally took her own sister, her younger sister, on her back, and walked at least part of the way to escape Seoul ee during the Korean War”. (Example 6)

“Now, how what are we going to do?” (Example 7)

“I studied both of them at the in in graduate school”. (Example 8)

It could be inferred from examples 6, 7, and 8 that the speakers produce deletions because they are aware of their mistakes (Dell, 1986). Examples 6 and 8 show the speakers choosing the wrong prepositions; hence, they replace them to make correct sentences. Meanwhile, in example 7, the speaker replaces the previous question word how with what.

Substitution

The last disfluency type in which the speakers change partly or completely what they say is called substitution. Examples of the speakers’ substitutions are presented in Table 6.

Table 6. *Examples of Speakers’ Substitution*

| Disfluency Type | Example |
|-----------------|--|
| Substitution | 1. “But <i>this is</i> these are the kinds of issues that people don’t understand”. |
| | 2. “She went she was chewing betel nuts, and it’s not something we do in Kiribati”. |
| | 3. “They they’re doing it at the district level”. |
| | 4. “We we’ve got a million people on the site already, so we can handle a few more”. |
| | 5. “We have ee 25 billion a year that we’re investing in poor countries, and as we in the poorest countries ”. |
| | 6. “And Kiribati is one of the three major um resource owners, tuna resource owners ”. |
| | 7. “Now, if your if the reference income of a nation, for example, goes up ten percent by comparing themselves to the outside, then on average, people’s own incomes have to go up at least five percent to maintain the same level of satisfaction”. |
| | 8. “This is a this thing I have in front of me actually ee used to be a commodity gaming controller called a Gametrak”. |
| | 9. “And this and here , you’ll hear a little accompaniment with the melody”. |
| | 10. “And eight trillion literally sitting in with in the hands of rich people under their very large mattresses”. |

“But *this is* **these are** the kinds of issues that people don’t understand”.
(Example 1)

“She went **she was** chewing betel nuts, and it’s not something we do in Kiribati”. (Example 2)

“They **they’re** doing it at the district level”. (Example 3)

“We **we’ve** got a million people on the site already, so we can handle a few more”. (Example 4)

The examples above show several kinds of substitutions produced by the speakers. In example 1, the speaker substitutes *this is* with *these are* to express the fact that there is more than one issue. In example 2, the speaker changes the tense he/she uses. At first, he/she uses *went*, then changes it to *was*. Both are in the past tense, but the new word *was* is in the past continuous tense. This is similar to examples 3 and 4, in which the speakers also change their tenses. In example 3, the speaker changes *they* in the present tense into *they’re* in the present continuous. Meanwhile, example 4 shows that the speaker changes *we* in the present tense into *we’ve* in the present perfect. In substitution, the speakers modify the content of the phrase because a grammatical mistake has occurred (Bailoor et al., 2015).

*“We have ee 25 billion a year that we’re investing in poor countries, and as we **in the poorest countries**”.* (Example 5)

*“And Kiribati is one of the three major um resource owners, **tuna resource owners**”.* (Example 6)

*“Now, if your **if the** reference income of a nation, for example, goes up ten percent by comparing themselves to the outside, then on average, people’s own incomes have to go up at least five percent to maintain the same level of satisfaction”.* (Example 7)

As can be seen in examples 5, 6, and 7, the speakers seem to realise that they have chosen the wrong diction to express their ideas. Hence, they substitute phrases that they say previously. In example 5, the speaker changes in poor countries into in the poorest countries. On the other hand, example 6 substitutes tuna resource owners for resource owners. In example 7, the speaker changes if your into if the. The speakers are aware of their mistakes when they are speaking (Fromkin, 1980). Thus, they change diction to form the correct versions of their utterances.

The pedagogical implications of this study include, firstly, the explicit discussion about various types of disfluencies, particularly in speaking or conversation courses where they can assist learners in improving their spoken proficiency and naturalness. Secondly, learners and teachers or instructors would understand that disfluencies, such as filled pauses and repetition, occur in daily conversation from time to time. Thirdly, disfluencies would even enable learners of English to correct their speaking mistakes, for example by changing some vocabulary items with more suitable ones, based on the context, using the substitution disfluency.

CONCLUSION

The present study results reveal that non-native English speakers still produce speech disfluency. There are five types of speech disfluency in their speaking: unfilled pause, filled pause, repetition, deletion, and substitution. In total, the current researchers have identified 29 unfilled pauses, 247 filled pauses, 154 repetitions, 17 deletions, and 18 substitutions. Based on the findings, it can be inferred that the filled pause represents the largest number of disfluency occurrences in the speakers’ presentations. Generally, the speakers produce different kinds of speech disfluency because they are unsure about their following utterances. Hence, while thinking about what to say next, they tend to produce speech disfluency, including repetition, unfilled pause, and filled pause. Furthermore, since the speakers are aware of their mistakes in speaking, it also makes them produce speech disfluencies, such as deletion and substitution. Based on the results, it is expected that learners, especially university students, can benefit from the results to improve their speaking proficiency. When they know and understand their disfluencies, they will be able to minimise their occurrences. Thus, they can increase their English competence, particularly in speaking.

This research has limitations, such as the relatively small size of speech disfluencies when using presentations for data, and the involvement of only four speakers or presenters. Thus, future researchers are encouraged to focus on

disfluencies uttered by learners of English when speaking in the target language for daily communication purposes. It is, therefore, essential for future researchers to collect more disfluency data from learners' actual conversations involving more speakers (not only four as in the current study) to yield solid and sound results of speech disfluencies.

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