2023
A new decade for social changes

Technium
Social Sciences
Linguistic features of self-repair strategies of Arab Speakers of English language

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Abstract. Self-repair occurring in the same turn of speaking has been subjected to analysis in studies involving first language and second language users. However, in the context of English spoken as a foreign language, the information might still need further attention. This study is conducted to first report on the self-repair strategies employed by the Arab speakers of English in the same turn of speaking and second, to describe the linguistic features of self-repair produced by the speakers. Adopting the quantitative and qualitative approaches, data for this study come from a number of videos capturing conversations in English involving Arab speakers. The conversations in the videos were later transcribed orthographically and following this, instances of self-repair were identified. Framework of self-repair strategies provided by Emrani and Hooshmand was adopted to guide the data coding while the linguistic features of self-repair in the same turn of speaking were described by looking into its context of occurrences. The first finding has shown that repetition is the most frequent type of self-repair strategy to be employed by the Arab speakers of English. This is followed by replacement, insertion, abandonment and deletion. On the other hand, the self-repair that takes place in the same turn of speaking (where trouble source can be found as well) can be marked through a number of linguistic features namely prosodic features, the presence of fillers and the repair item that comes immediately after the trouble source item. The findings have provided insight into the speakers’ ability to monitor troubles in their speech, repair the troubles and features of their self-repair which can benefit the theoretical understanding and language classroom practices.

Keywords. Arab speakers of English language, linguistic features, self-repair strategies, speech production

Introduction

Until the beginning of the 1970s, the correlation between child’s language acquisition and socialisation had been a relatively unexplored area (Ochs & Schieffelin, 2017). Instead of analysing language acquisition through the compound sociocultural and psycholinguistic lenses, linguists and researchers put the focus on a separate discussion of such issues as human mind and language learning, child’s socialisation, and culturally specific skills for communication. Context and the child’s use of language in social interactions were not viewed as contributing to research on socialisation (Schieffelin & Ochs, 1984). Yet since the 1970s, a decisive step has been taken in the direction of a theoretical and empirical reconsideration of the role of interactions in early language development. In light of this reconsideration, new
models and theories of language acquisition based on the juxtaposition of cultural, social, and linguistic processes have been developed by scholars (Ochs & Schieffelin, 2017). A famous Russian psychologist Lev Vygotsky (1896-1934) explicitly criticised the behaviourist stances on language acquisition and proposed a more unified socio-cultural perspective on child’s cognitive and language development (Crawford, 1996). His major criticism referred to the scholars’ attempt to separately investigate higher mental functions and processes (Vygotsky, 1997). This approach to investigation complicates understanding of higher mental functioning because, instead of perceiving it in integrity, scholars focus on the analysis of its component elements.

The psychologist’s theoretical implications have evoked great interest among researchers and have paved the way for the emergence of studies investigating L1 and L2 acquisition in light of these implications. The aim of this research is to gain insight into Vygotsky’s (1978, 1987a, 1987b, 1997, 2012) interactionist view of language acquisition by exploring his social development and interactionist theoretical implications. The psychologist’s interactionist stance was brought to the fore while formulating the sociocultural theory of language development and was later evolved into interactionist theory that occupied a middle position between the behaviourist theory and the nativist theory (Rudd & Lambert, 2011). The literature review that follows will give shape to Vygotsky’s (1978) social nature of learning and the relationship between the social world and child’s cognitive development. It will define the key theoretical concepts and clarify the terms used in the context of the present research. Moreover, through the discussion of some related theories, the attempt will be made to identify the differences between these theories and Vygotsky’s (1978) interactionist theory. The subsequent critical review will assess the empirical evidence on Vygotsky’s (1978, 1987a, 1987b, 1997, 2012) theoretical implications. Given that the psychologist did not undertake empirical testing of his assumptions because of his reluctance to predict human behaviour, on the one hand, and his early death, one the other (Nam, 2005), such review is of great significance to validate or disprove Vygotsky’s (1978, 1987a, 1987b, 1997, 2012) observations.

**Literature Review**

There have been a number of linguistic or applied linguistic studies that have examined strategies for speakers to self-repair as a result of other-initiation or self-initiation. One of the common techniques for self-repair to be carried out is repetition (Rieger 47) where speakers will simply re-employ similar utterances that have been the source of trouble earlier with or without minor modifications made. Other examples of self-repair techniques include replacement (as evident in Extract 1 where the speaker A replaced the lexical item this with that), insertion or deletion (Emrani et al. 57). However, many studies have highlighted repetition to be the common choice of self-repair.

One of the studies is Haniah et al. that has shown the preference of repetition to be employed by speakers of English as a Foreign Language (EFL). In their study, they investigated the lexical category that motivates repetition to be employed as a self-repair technique. Through evaluation of data sets obtained through interviews, it was found that lexical items belonging to the syntactic category of noun in the trouble source utterance will mostly be repeated by the speakers when they have to produce self-repair (107).

Similarly, Wan et al. found repetition to be used commonly by speakers with Wernicke’s aphasia and Broca’s aphasia in the same turn of speaking where trouble source can be found. Despite the language processing has been shown to be different for the two groups of speakers (Wernicke’s group and Broca’s group), the use of repetition is found to be consistent hence
suggesting the universality of repetition to be used as self-repair strategies in the same turn of speaking (13).

In another study, Belgrimet investigated the repair strategies (not limited to self-repair in the same turn of speaking or self-repair resulting from self-initiation) among the Algerian bilinguals. Participants were asked to engage in dyadic casual conversations and they were audio recorded. The findings have shown that there are nine different repair strategies to be used by the speakers which are repetition, expansion, meta-repair, hesitation, abort and abandon, code switching, abort and restart, avoidance and finally, questioning. It was also found that the different repair strategies are to suit different communication breakdowns that have taken place suggesting the systematic operation of repair (462-467).

Gao examined the prosodic features of self-repair taking place in the same turn of trouble source. The study has analysed a total of 260 minutes of interviews involving one interviewer from an English-speaking country and 23 interviewees from China. Findings have shown that self-repair occurring in the same turn of speaking is accompanied by laughter which further indicates the pragmatic function of laughter and its association with self-repair (e.g., to mark poor language proficiency). In addition, instances of pauses and cut-offs of lexical items are consistently found as well (490).

On the other hand, Rieger showed that bilingual German-English speakers despite employing repetition as strategy to self-repair in both languages, the lexical categories that they repeat to self-repair are different (47). Specifically, speakers tend to repeat more pronoun-verb combinations, more personal pronouns and more prepositions when they self-repair in English, but self-repairs in German shows speakers repeat more demonstrative pronouns.

Finally, Emrani and Hooshmand conducted a study to examine self-initiated self-repair strategies by advanced Iranian EFL learners. As such, 40 participants were included in the data collection process through classroom observations. Specifically, their utterances were recorded and later analysed qualitatively. Findings showed that the Iranian EFL learners’ practice four strategies which are replacing, inserting, deleting and aborting. Repetition on the other hand is not observed. This study nonetheless showed the similarity of practice between the participants and native speaker of English whereby replacement of trouble source is a common practice of self-repair.

**Research Methodology**

**Research Design**

This study is conducted to examine the self-repair strategies employed by Arab speakers of the English language when they are in the position to repair troubles that have occurred in speech production. In addition, the study will describe the linguistic features of self-repair occurring in the same turn of speaking. Hence, the study is first conducted within the paradigm of quantitative research design as it aims to inform the statistical distribution of self-repair found in the data set for the first research question. Next, qualitative research design will be adopted for the second research question as it involves contextual description of the document (i.e., YouTube videos containing speech produced by the Arab speakers).

**Data source**

The speech of Arab speakers speaking in English was collected from an open source (YouTube) that has provided videos on Arab learners taking part in a speaking task. The total hours of the videos are close to two hours. The videos contain question and answer session between the Arab speakers and speaking assessors who are not necessarily Arab. The Arab
speakers in the video can be seen to provide explanations on many things within the context of questions being asked. Such data is deemed to be suitable because the speech produced by the Arab speakers is not pre-planned and it actually reflects the natural speech production as the speech is produced spontaneously. Table 1 provides the summary of the collected videos with the total number of participants involved and their length.

Table 1: Summary of the collected videos

<table>
<thead>
<tr>
<th>Video</th>
<th>Number of participants</th>
<th>Length of video</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Video 1”</td>
<td>3</td>
<td>9 minutes 08 seconds</td>
</tr>
<tr>
<td>“Video 2”</td>
<td>2</td>
<td>7 minutes 26 seconds</td>
</tr>
<tr>
<td>“Video 3”</td>
<td>2</td>
<td>12 minutes 30 seconds</td>
</tr>
<tr>
<td>“Video 4”</td>
<td>2</td>
<td>7 minutes 58 seconds</td>
</tr>
<tr>
<td>“Video 5”</td>
<td>2</td>
<td>13 minutes 50 seconds</td>
</tr>
<tr>
<td>“Video 6”</td>
<td>2</td>
<td>21 minutes 46 seconds</td>
</tr>
<tr>
<td>“Video 7”</td>
<td>2</td>
<td>21 minutes 02 seconds</td>
</tr>
</tbody>
</table>

All the collected videos showcased similar situations where an Arab speaker of English is recorded to communicate with a non-Arab English speaker. As the video captured a speaking test, the role of the non-Arab speaker is a speaking assessor while the Arabs are the candidates sitting for the speaking test. Both of them are captured sitting in a table facing each other with one non-participating individual visible in the background who acted as a time-keeper.

Data collection procedure

After the research objectives have been established, the first step in the data collection procedure was to collect the videos that capture the English speech produced by the Arab learners. This study has decided to focus on videos collected from the open source for the reason of the pandemic Covid-19 that prevents face-to-face data collection procedure. The videos were searched on the online open source YouTube through a number of key words such as “Arabs speaking English” and “conversation with Arabs in English”. However, the initial search through such keywords did not provide much data but some suggested videos that appeared on the search list are about the Arab speakers speaking English during IELTS speaking task. Given the number of such videos is promising and at the same time, the natural speech production is still observed, the study hence includes videos within that particular discourse only as a way to maintain consistency across the data set.

Once all the suitable videos have been finalised (Table 1), the next step is to transcribe the part where self-repair is detected. Transcription of verbal data adopts orthographic transcription only because this study limits its scope to identify the strategies for self-repair only. On the other hand, prosodic features are transcribed using symbols that are available in Jefferson Transcription System (2004). The transcription system provides symbols to indicate a number of speech patterns such as a rise in intonation, stress and speech pace. Phonetic
transcription on the other hand is not necessary given the focus of the study is not on analysing sound production. Similarly, a transcription that captures other elements of talk such as body language are not necessary because the study does not include the use of body language in the self-repair practice due to the context of data source. Once self-repair is found in the data set, the next step is to code the self-repair strategies according to the coding categories. Finally, the self-repair is examined according to its context of occurrence in order to provide a description on the linguistic features. Linguistic features are identified based on specific salient features which refers to their regularity across the data set. Once the data shows the regularity of specific linguistic features, it is then treated as the salient feature. It is identified through scanning the entire data set once the data has been transcribed.

**Framework for data coding**

To code the self-repair strategies, this study has adapted the coding categories offered by Emrani et al. (62). Specifically, there are five main strategies that represent the five coding categories for self-repair which are repetition, replacement, insertion, deletion and abandonment. Repetition refers to speakers repeating the trouble source item as the repair item. Replacement refers to trouble source being partially or completely substituted by other linguistic elements such as new lexical items; insertion refers to situation when speaker adds new elements to the trouble source turn for better understanding; deletion as the name suggests describes situation when specific items are removed from the trouble source turn and finally, abandonment refers to speaker to abandon the trouble source and produce a different set of utterance.

Hence, these five categories of self-repair are used to guide the data coding. Prior to the coding, instances of self-repair must be identified in the data set. In this study, turns containing self-repair are identified when speaker stops an utterance and commits any five of the strategies to self-repair.

**Data Analysis**

Following the data coding, frequency count was performed. Each category of self-repair that marks the strategies employed by speakers will be calculated for their distribution across the data set. This will provide the result to the first research question that aims to identify self-repair strategies by the Arab speakers of English. Next, the self-repair strategies will be analysed by looking into the context of utterance; this is to allow for contextual description of self-repair which consequently will address the second research question.

**Validity and reliability**

In this study, the coding of strategies for self-repair employed by speakers is the one element that requires validity and reliability check. The description of linguistic features is also another aspect of this study that requires validity and reliability check. As such, one inter-rater has been asked to check the coding of strategies. The appointment of inter-rater is made based on familiarity with the notion of repair and experience dealing with interactional data. Specifically, the appointed inter-rate is a PhD holder that specializes in Pragmatics. He is currently working as an Assistant Professor in one university and teaches linguistics modules. His major research area is to analyse linguistic features of speakers with specific language disorders. Based on his theoretical knowledge and his experience dealing with interactional data, he is deemed to be suitable to conduct the validity and reliability check. In case of disagreement, discussion was made before reaching the final consensus.
Result and Discussion
This section of the paper will present the results of the study. The first sub-section will provide the results that have been obtained through quantitative analysis on the distribution of self-repair strategies employed by the Arab speakers of English. The next sub-section will show the linguistic features of self-repair.

Distribution of self-repair strategies
From the data set, all self-repair strategies according to the framework provided by Emrani et al. (62) were found. Table 2 shows the distribution of self-repair strategies employed by the speakers.

Table 2: Distribution of self-repair strategies

<table>
<thead>
<tr>
<th>Self-repair strategies</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetition</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>Replacement</td>
<td>20</td>
<td>26.7</td>
</tr>
<tr>
<td>Insertion</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Deletion</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>Abandonment</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From Table 2, it can be seen that the most employed self-repair strategy is repetition (60%). This is followed by replacement (27%), insertion (8%) and finally, abandonment (4%). On the other hand, the strategy of deletion occurs very minimally which has only been found in one instance. The following paragraphs will present selected extracts taken from the data set to highlight the self-repair strategies evident in the Arab speakers of English.

Repetition has been found to occur the most in the data set. In other words, it can be said that repetition is common to be used by speakers when they commit to self-repair in the same turn. The occurrence of repetition has been recorded to be at 61% (N=45) which is more than half of the overall self-repair strategies. Extract 2 highlights one example of repetition used by the Arab speaker of English.

Extract 2
Speaker A: What about if we have an evening activity centre for young people?
Speaker B: about err about activity centre for young for young people you know…

In Extract 2, speaker B is found to repeat preposition about and prepositional phrases for young immediately after each item is produced. The repetition marked the instance of self-
repair in the same turn of speaking that could be linked to the issue of the speaker’s fluency. Another example of repetition to highlight the self-repair is shown in Extract 3.

Extract 3
Speaker A: okay, before one month okay, I was watching TV programme okay, so suddenly the television okay you know the sound and the picture it comes err it comes it comes like dark or something not clear.

In Extract 3, the speaker is found to commit self-repair by repeating the noun phrase it comes three times when he was describing his broken television to the other speaker. Similar to the repetition in Extract 2, the repetition here also happens when the repeated terms are adjacent to each other.

Another style of repetition is seen in situations when the speaker repeats the source of trouble after another lexical item. Extract 4 shows one of the instances.

Extract 4
Speaker A: To be honest err I have never found about it but I think in my country especially in my country err people when err whenever they want to find a job, its not important have degree or not.

In the extract, it can be seen that speaker A has repeated the prepositional phrase in my country due to the addition of adverb especially. The reason for this addition might be due to the speaker’s attempt to make the context of her utterance specific to her own country. Hence, the term especially is added after she failed to produce it before.

Next, a replacement has also been found to be employed by Arab speakers of English when they produce self-repair in the same turn of speaking. Extract 5 shows one instance of capturing replacement as a self-repair strategy.

Extract 5
Speaker A: What err what your opinion about charity which looks after dogs and cats?
Speaker B: Oh Khaled, it’s err it’s a crazy idea
Speaker A: mm
Speaker B: because you know uhm you know some err many poor people they are dying.

As shown in Extract 5, it can be seen that Speaker B has employed replacement as a strategy for him to self-repair within the same turn of speaking. In the context, while explaining why the charity that looks after animals might not be a good idea, he replaces the quantifier some to many in order to indicate that such a problem is more severe. The replacement takes place after the hesitation marker (err).

Another example of replacement is depicted in Extract 6. In the following extract, the speaker replaces the lexical item that seems to be wrong with a more accurate term.

Extract 6
Speaker A: Where do you go to relax?
Speaker B: Well, sometimes I just go to my room and enjoy being with myself by myself.

In the extract, speaker B seems to have the ability to monitor the correct use of grammar in English when she replaced the preposition with to by. The replacement happens immediately.
after the part containing trouble source (with). Another example of replacement as a self-repair strategy is given in Extract 7.

Extract 7
Speaker A: They don’t have time enough sitting in the centre or err or to do activity
Speaker B: Yes yes
Speaker A: Most of them
Speaker B: Yes, I agree with you
Speaker A: Let us see about err what do you think about err the study the idea about charity for poor people.

In the extract, speaker A is found to employ replacement in his speech whereby the self-repair strategy happens twice within the same turn of speaking. Firstly, at the beginning of his turn, the speaker replaced the phrase let us see about with another phrase what do you think about that seems to include a question word. Another instance in the same turn shows the speaker replaced the study to the idea that could suggest wrong lexical item being used earlier.

The next self-repair strategy found in the data set is insertion. Insertion happens when speakers insert new element to the part of speech containing trouble that requires repair. Extract 8 shows one example of insertion.

Extract 8
Speaker A: Yes, in my country, some people prefer someone with experience experiences

In Extract 8, the insertion is seen when the speaker added plural -s to the word experience and the self-repair happens immediately after the item requiring repair (experience). Another example of insertion is shown in the following Extract 9.

Extract 9
Speaker A: When I young err younger

As shown in Extract 9, the self-repair happens when speaker added the comparative form -er to the word young; hence becomes younger.

Next, abandonment is also found to be employed by the speakers when they perform self-repair within the same turn of speaking. One example from the overall three instances is shown in Extract 10.

Extract 10
Speaker A: he hmm well one great accomplishment of Mandela was bringing two races in a country

In Extract 10, it can be seen that the pronoun has been used by the speaker to construct his turn of speaking. However, after a brief hesitation, he reformulates the turn by employing the filler well and proceeds to informing the intended message to the other speaker. This self-repair strategy hence causes the pronoun he to be abandoned.

Another example of abandonment is given in Extract 11. In the extract, the speaker has abandoned the first verb phrase and produced different set.
Extract 11
Speaker A: you know, they are known to be uhm to have great sense of humour
In the extract, the verb phrase is known to be is abandoned when the speaker has failed to provide suitable continuation and seems to be hesitated (the presence of filler). This is also evident when after the filler, the speaker reformulated his speech and produced a different set.
Finally, deletion is found to be employed by the speaker in one instance only. Extract 12 highlights the situation.

Extract 12
Speaker A: He was jailed for protesting against his government but eventually, he is he won his release
In Extract 12, it has been shown that the be verb is has been deleted by the speaker when the pronoun he comes before the simple past tense won. In this instance, the speaker immediately changed from he is to he by removing the be verb in order to suit the intended syntactic structure.
All in all, it can be seen that all types of self-repair strategies that take place within the same turn of speaking are employed by the speakers. However, the distribution is not equal and it is evident that repetition has been the most employed strategy by the Arab speakers of English. This in fact is not surprising because repetition has been reported to occur the most especially in the speech of non-native speakers (Rabab’ah 123) that might be due to them speaking in a different language where proficiency is not the same as their first or native language.

Linguistic features of self-repair in the same turn of speaking
The next research question of the present study is to examine the linguistic features of self-repair in the same turn of speaking produced by the Arab speakers of English. From the analysis of the contextual occurrence where self-repair is found, the study has identified three features that can be associated to self-repair happening in the same turn of speaking. The features are the presence of filler, speaker’s prosodic feature and immediate repair.

The presence of filler
The first linguistic feature of self-repair taking place in the same turn of speaking is the presence of fillers such as err or hmm prior to repair is being given. In addition to selected extracts that have been presented earlier, Extract 13 shows another example of filler to be employed by a speaker before repair is given.

Extract 13
Speaker A: Since education is free, any sys- hmm any people can go to any university he wants
As evident in Extract 13, it can be seen that there is filler hmm to be employed by the speaker when he finds the need to repair the previous item that has been cut off (presumably any system) before he repairs it by replacing it with a new item (people). Another similar example is shown in Extract 14.

Extract 14
Speaker A: I like err mathematics because err err I believe it is err benefit for me huh my career
In Extract 14, it can be seen that the speaker employed a number of fillers that might be due to fluency issues. In addition to that, another filler is found to be employed when he performed the self-repair (when he changes the pronoun me to my).

**Speaker’s prosodic feature**

Another linguistic feature of self-repair taking place in the speaker’s same turn of speaking is the prosodic feature. Specifically, the self-repair is marked through speech that has been quickened and there is slight rise in intonation. Such a feature is mostly observed when filler is not employed by the speakers. Extract 15 shows one situation. The extract captures the same utterance as shown in Extract 12 but with modification to mark the prosodic feature.

**Extract 15**

Speaker A: He was jailed for protesting against his government but eventually, he is >↑he won< his release

In Extract 15, the utterance is marked with rise in intonation immediately after the repair is given (the upward arrow indicates where the rise in intonation begins). In addition, the speech pace also increases to be slightly faster (the inward bracket indicates faster speech pace). Similarly, Extract 16 shows the situation when the same prosodic feature is seen in the context of self-repair.

**Extract 16**

Speaker A: We have here err few ideas, let we err let ↑us decide which is the best idea

As shown in Extract 16, it is evident that there is a similar mark of prosodic feature for self-repair where in this situation, the speaker has been found to slightly increase the intonation at the repair item (us). Somehow, the rise of intonation can also cause the item to be stressed.

**Immediate repair**

Finally, another linguistic feature that this study has identified is the immediate repair whereby the repair is given immediately after the items treated to be the trouble source. In other words, it can be said that speakers do not delay the repair to the later position in the same turn but rather the repair comes immediately after the trouble source item. Extract 17 highlights one of the situations.

**Extract 17**

Speaker A: I think they are special for both.
Speaker B: Why?
Speaker A: Because it brings happy happiness to the people.

In Extract 17, Speaker A can be seen to perform self-repair when he used a wrong class of word (Noun to Adjective) to justify his reason to the issue he and the other speaker are talking about. The repair (happiness) can be seen to come immediately after he uttered the lexical item happy.

Another example that shows the repair is given immediately after the item that is considered a trouble source is Extract 18.

**Extract 18**

Speaker A: My father had to work two jobs while at university in order to support he in order to support my grandmother financially
In the extract, it is evident that the self-repair performed by Speaker A comes immediately after the item that has been marked to be the trouble source (in order to support he). Immediately, he repaired by repeating the prepositional phrase in order to and replacing the pronoun he to noun phrase my grandmother.

This study has specifically been conducted to explore the instances of self-repair that occur in the same turn of speaking produced by Arab speakers of English. The study has identified the most common self-repair strategies to be employed by the non-native speakers of English and secondly, the study described the linguistic features of self-repair occurring in the speaker’s same turn of speaking.

From this study, several issues can be highlighted. First, it is evident through the analysis of self-repair in this study that the Arab speakers of the English have language has the ability to monitor their speech, detect any errors or troubles in speech and later, repair. Many instances that have been shown through a selected number of extracts have indeed highlighted the occurrences of troubles within the range of strategies that captured participants to make adjustment to the lexical choice and grammatical form (Alahmadi 85). Speakers also have shown the ability to monitor their speech when they manage to detect the troubles and provide repair. This according to Simpson et al. (2013) can give information about the speakers’ proficiency level and knowledge in the language. Hence, speakers with this ability can be said to have necessary knowledge of the target language.

In terms of self-repair strategy, this study has identified repetition of trouble source items to be the most frequent strategy of self-repair. This particular finding in fact is in agreement with many other studies that have also found repetition is the most common self-repair strategy by non-native speakers (Haniah et al. 107; Emrani et al. 62; Wan et al. 2 and Rabab’ah 123). Several implications can be made from this particular finding. First, repetition as a self-repair strategy can be said to be universal as it is employed by speakers from various linguistic backgrounds. Secondly, repetition is not limited to specific linguistic items but rather speakers can repeat any words belonging to different word class such as noun, verb, adjective or noun phrase, verb phrase and prepositional phrase as long as they have been identified to be the trouble source (Haniah et al. 107). Another thing that can be said about repetition is, this self-repair strategy might be mostly favoured due to less efforts speakers have to make in order to repair (Wan et al. 2). In other words, it can be said that speakers do not have to adjust complex linguistic structures or use different lexical items that may not be available to them.

Finally, this study has described the linguistic features that can be associated with self-repair occurring in the same turn of speaking. With specific attention to the prosodic features and the use of fillers, the finding from this study has been found to be inconsistent with Quimbo et al. that has found Japanese speakers to commit to longer pauses and longer duration of fillers (3). In contrast, this study has identified the fillers to be short and there is a rise of intonation placed at the repair item. These differences could be due to the different backgrounds of speakers with different L1s. It is worth mentioning that the linguistic features identified in the present study can be used to mark the occurrence of self-repair in the speech of Arab speakers of English due to consistency and regularity across the data set.

**Conclusion**

In summary, this study has identified two primary key findings that consequently answered the two research questions developed earlier. First, the distribution of self-repair strategies has been identified across the data set involving Arab speakers of the English language. Specifically, repetition has been found to be employed by the most speakers, and this
is followed by replacement, insertion, abandonment and deletion. Secondly, the linguistic features that can be used to mark the self-repair in the same turn of speaking have been described. The linguistic features are the presence of fillers, rise of intonation and faster speech pace. In addition, the repair item is also found to be given immediately after the item that has been identified to be the trouble source.

However, due to limitations of this study that include small data sources that were obtained from recorded videos available in an open-source website and the context of speaking that is limited to a specific environment which might not be reflective of real everyday interaction, this study would like to put forward a number of recommendations. First, future studies can increase the amount of interactional data so that, more instances of self-repair can be generated. Secondly, collecting data from everyday interactions such as when speakers are having casual conversation with each other can possibly produce different outputs.

Nonetheless, this study has provided a number of theoretical and practical implications. First, for linguists working in the area of repair or speech fluency, the findings have provided an extension to current understanding on the behaviour of self-repair occurring in the same turn of speaking that might be influenced by speakers’ L1. With this understanding, specific features of English spoken by specific communities (Variety of English) can be further identified.

Secondly, linguists can be informed on the linguistic resources that have been employed by speakers in order to perform self-repair. This information can be used to compare and contrast the linguistic resources between self-repair and repair that takes place in different manifestation. In addition, the linguistic resources can also be used to determine speakers’ ability to process language.

Next, language teachers can utilize the findings from this study to further design suitable language classroom activity especially in the teaching and learning of speaking. The information on areas where speakers find trouble the most can help teachers to identify the areas and place greater emphasis during the teaching and learning process. Similarly, language teachers can inform learners that trouble in speech should not always be treated as someone having low language proficiency since repair activity is common in everyday interaction. The teacher can utilise the findings to train students on various approaches of self-repair in addition to the common technique which is repetition in order for repair outcomes to be accomplished clearly.

References