OTHER-INITIATED REPAIR IN INTERACTION BETWEEN PARENTS AND CHILDREN WITH REPAIRED CLEFT LIP AND/OR PALATE

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OTHER-INITIATED REPAIR IN INTERACTION BETWEEN PARENTS AND CHILDREN WITH REPAIRED CLEFT LIP AND/OR PALATE

ABSTRACT

Troubles in interaction can negatively impact speakers' mutual understanding. It is thus necessary for any occurring troubles to be addressed and resolved so speakers understand each other correctly and accomplish successful interaction. One mechanism available for speakers to deal with interactional troubles is other-initiated repair (OIR). OIR is a practice when one speaker initiates repair from speaker of preceding talk that has been treated to be problematic. The success of OIR depends on speakers' ability to first locate troubles and then initiate repair through necessary strategy. This can help the initiated speaker to respond with necessary repair solution so mutual understanding can be restored. In order for OIR practice to happen smoothly, speakers must be equipped with necessary language, cognitive and social skills.

In this study, OIR sequences in everyday interaction between parents and their children with surgically repaired cleft lip and/or palate (CL/P) of Malay backgrounds are analysed. Specifically, this study examines reasons for troubles to occur during interaction, strategies to initiate repair once troubles occur and strategies for repair solution. Examination on OIR sequence includes linguistic and non-linguistic elements that speakers use as resources. Three families that consist of parents and their children with surgically repaired CL/P are recruited for their interaction to be recorded. Recordings of interaction and transcription of verbal data are strictly guided by Conversation Analysis (CA) that serves as this study's methodological framework. Identification of troubles and coding of repair initiation strategies and repair solution strategies follow coding scheme by Philip (2008).

Findings generally show that troubles in interaction occur mostly due to children's inability to give sufficient information. As a result, parents tend to request for more information thus placing them in a position to initiate repair significantly higher than children. In addition, such children are also identified to have problems in taking turn allocated by others and monitoring topic shift thus resulting in breakdowns. In terms of repair initiation strategy, parents and children are noted to employ a contrasting mechanism; parents employ strategy of requesting for specific information while children employ open-class word to initiate repair from parents. This difference in strategies relates to types of trouble that occur in preceding turn. Finally, repair solution by children is found to be mostly inappropriate. This causes the OIR sequences to be longer when they include many initiations before mutual understanding is achieved.

This study has shown the inability for children with surgically repaired cleft to participate in the practice of OIR. In addition, the first language of speakers and their cultural background provide information in the aspect of linguistic and non-linguistic resources of Malay language speakers. Findings of this study contribute to aspect of speech therapy technique to such population with inclusion of pragmatic functioning and to promote parents' understanding on how to interact with cleft children to ensure their language and social skills develop as normal developing children.

Keywords: Other-initiated repair; repair strategies; parent-child interaction; cleft lip and/or palate

INISIASI PEMBETULAN OLEH PENUTUR LAIN DALAM PERBUALAN DI ANTARA IBUBAPA DAN ANAK-ANAK DENGAN SEJARAH SUMBING BIBIR DAN/ATAU LELANGIT

ABSTRAK

Masalah dalam interaksi dapat memberi kesan negatif ke atas persefahaman sesama penutur. Oleh itu, sebarang masalah yang timbul perlu diselesaikan supaya penutur dapat memahami antara satu sama lain dengan betul. Satu mekanisme yang tersedia dalam menangani masalah interaksi adalah "inisiasi pembetulan oleh penutur lain" (OIR). OIR merujuk kepada kaedah di mana seorang penutur memulakan pembaikan dengan meminta pembetulan dari penutur yang telah menimbulkan masalah. Keberkesanan OIR bergantung kepada kebolehan penutur untuk menyedari wujudnya masalah dan kemudian, menginisiasi pembetulan melalui strategi yang bersesuaian. Ini dapat membantu penutur yang seorang lagi untuk bertindak balas dan memperbaiki dengan tepat supaya persefahaman dapat dipulihkan. Untuk proses ini berjalan lancar, penutur mesti dilengkapi dengan kemahiran bahasa, kognitif dan sosial.

Kajian ini mengkaji OIR dalam interaksi harian antara ibu bapa dan anak-anak mereka yang mempunyai sejarah sumbing bibir dan/atau lelangit (CL/P) dari latar belakang masyarakat Melayu. Secara khususnya, kajian ini melihat kepada sebab-sebab yang mencetuskan masalah interaksi, strategi bagi mereka untuk menginisiasi pembetulan apabila masalah berlaku dan strategi untuk mereka membaik pulih. Analisis ke atas OIR termasuk mengkaji elemen linguistik dan bukan linguistik yang digunakan. Tiga keluarga yang terdiri daripada ibu bapa dan anak-anak mereka dengan sejarah sumbing telah direkrut sebagai sumber data. Rakaman interaksi dan proses transkripsi dibuat dengan berpandukan rangka kerja kajian berdasarkan *Conversation Analysis* (CA). Pengkodan

ke atas jenis masalah, strategi menginisiasi pembaikan dan strategi pembaikan dibuat dengan mengikut skema kod oleh Philip (2008).

Penemuan secara umumnya menunjukkan bahawa masalah interaksi kebanyakannya berlaku disebabkan ketidakupayaan kanak-kanak untuk memberikan maklumat yang mencukupi. Ini mengakibatkan ibu bapa untuk terpaksa meminta lebih maklumat sehingga meletakkan mereka dalam posisi untuk menginisiasi pembetulan jauh lebih tinggi daripada kanak-kanak. Di samping itu, kanak-kanak juga dikenal pasti mempunyai kesulitan dalam mengambil giliran bercakap dan juga mengikuti topik perbualan. Dari segi strategi untuk inisiasi pembetulan, ibu bapa dan kanak-kanak didapati menggunakan mekanisme yang berbeza; ibu bapa menggunakan strategi inisiasi dengan meminta maklumat khusus manakala kanak-kanak menggunakan perkataan terbuka yang tidak khusus. Perbezaan strategi ini didapati berkait rapat dengan jenis masalah yang berlaku. Akhir sekali, pembaikan yang dilakukan oleh kanak-kanak didapati tidak bersesuaian dan ini mengakibatkan proses OIR menjadi lebih lama dengan banyak inisiasi terpaksa dilakukan sebelum pemahaman diperoleh.

Kajian ini menunjukkan ketidakupayaan kanak-kanak dengan sejarah sumbing untuk mengambil bahagian dalam proses OIR. Di samping itu, bahasa pertama iaitu Bahasa Malaysia dan latar belakang budaya mereka telah memberi maklumat dari aspek linguistik dan bukan linguistik yang mungkin tidak serupa dengan bahasa yang lain. Penemuan kajian menyumbang kepada cadangan untuk melibatkan sudut pragmatik ke dalam terapi pertuturan ke atas kanak-kanak. Kajian ini juga menyumbang kepada pemahaman ibu bapa tentang cara untuk berinteraksi dengan kanak-kanak tersebut dalam memastikan kebolehan bahasa dan sosial mereka berkembang seperti kanak-kanak biasa.

Kata kunci: Inisiasi pembetulan oleh penutur lain; strategi pembetulan; perbualan ibu bapa-anak; sumbing bibir dan/atau lelangit

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May Allah's blessing be with each one of you.

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Transcription Symbols (Jefferson System of Transcription Notation, 2004):

(.)	a micropause – a pause of no significant length
(0.7)	a timed pause – long enough to indicate time
[ ]	overlapping speech
> <	the pace of speech has quickened
< >	the pace of speech has slowed down
( )	unclear section
(( ))	an entry requiring comment but without a symbol to explain it
Underline	a raise in volume or emphasis
↑	rise in intonation
↓	drop in intonation
CAPITALS	louder word
(h)	laughter
=	no pause between sentences
:::	a stretched sound
° °	talk that is quieter than surrounding sound
.hh	inhalation
hh	exhalation
$	smile voice
~	shaky voice

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Interaction is a major component in daily living. Many important activities such as information sharing and socialising between people are accomplished through interaction. However, the process is not guaranteed to be smooth or faultless because many troubles can happen when people interact with each other (Verma, 2013). These troubles happen when speakers are confronted with speaking, hearing or understanding problems (Schegloff, Jefferson & Sacks, 1977). In order to achieve successful communication, it is crucial for speakers to address and resolve the occurring troubles.

One mechanism for speakers to address such troubles and prevent interactional breakdowns is the practice of other-initiated repair (OIR) (Schegloff et al., 1977). OIR is a systematic technique for speakers to deal with troubles during the on-going interaction (Hayashi & Kim, 2015). The practice originates from the overall repair system proposed within the methodological framework of Conversation Analysis (CA), a scientific approach that investigates the organisation of social interaction (ten Have, 1986). OIR describes situation when one speaker initiates repair from his/her co-speaker on preceding turn that has been treated to contain problem. By doing so, speaker performs two interactional activities; first is making the troubles public and second, initiating repair (Kendrick, 2015).

To initiate repair, speakers are expected to employ various resources available in language. This is to ensure the initiation is clearly made to inform co-speaker on what type of trouble that has caused problem to occur and subsequently, repair to be required. Many studies have documented various strategies for speakers to construct their repair initiation turn (e.g. Aleksius & Ali, 2018; Kendrick, 2015; Kim & Kim, 2014). But one

study that has provided initial findings on the strategies is Schegloff et al. (1977) who identified five common ways or formats for speakers of American English to initiate repair. The five formats are the use of open-class repair words such as "huh?" or "what?", question words like "when", partial repeat of trouble source with question word, partial repeat of trouble source without question word and finally, offering candidate understanding as in "you mean?" expression.

The use of these repair initiation formats is said to have a specific order where speakers can try "the most innocuous format first" before moving to another format should the first fail to generate repair (Svennevig, 2008, p. 2). This ordering of formats relates to the strength of each repair initiator possesses (Manrique & Enfield, 2015). Schegloff (2007) specifically classified open-class repair words that could not specifically locate type of trouble to be the weaker repair initiator while more specific formats like offering candidate understanding or seeking confirmation have the most strength.

Once repair initiation is made, it is a requirement for speaker of the trouble source to repair. Similarly, repair solution may be performed in many different ways (Barstein, Martin, Lee & Losh, 2018). For example, speaker can opt to repeat the trouble source as his/her repair strategy with modification on its phonetic properties (Benjamin & Mazeland, 2013; Curl, 2005). Other strategies might include paraphrasing where speaker uses a different lexical item than in trouble source (Brady & Halle, 2002; Dincer & Erbas, 2010) or addition in which speaker adds information to trouble source through either vocal or gestures (Dincer & Erbas, 2010).

Regardless of how OIR sequence is organised through strategies in initiating repair and repairing, its practice demonstrates cooperative behaviour between speakers (Alzaidi, 2016). During the troubling situation, speakers negotiate each other's speech across several turns until shared understanding is restored (Dingemanse & Enfield, 2015). In

doing so, speakers must be equipped with necessary language, cognitive and social skills (Cho & Larke, 2011). It is important for speakers to be proficient in these skills so they can participate in OIR efficiently.

However, it raises issue on how do speakers with specific language disorder that affects their cognitive functioning or deficiency in psychosocial functioning participate in OIR practice. Language, cognitive and social skills are important in OIR because speakers need to be alert on trouble that occurs, highlight its occurrence and then initiate repair so that another speaker can successfully repair. In addition, repair solution to the troubles requires speaker to use necessary linguistic or non-linguistic resources so interaction can resume to its original track. With these tasks, it can be expected for the speakers to experience greater challenges.

A number of studies within the area of communication disorders or clinical pragmatics have indeed described the OIR practice in interaction with such individual. For example, Barnes (2016) showed the difficulties for aphasic individual (someone who experienced brain-related injury that causes impairment in language functioning) to repair after being initiated to do so. Similarly, multiple repair strategies with emphasis on mutual gaze as primary resource between speakers are consistently observed following breakdowns in interaction with hearing impaired individual (Ekberg, Hickson & Grenness, 2017). In the case of autistic children, poor non-verbal behaviours such as avoidance of eye contact and certain deviant prosodic features in their speech are the reasons for troubles to occur (Wiklund, 2016). The children also employed different repair strategies following initiation than normal developing children (Philip, 2008; Barstein et al., 2018).

Despite the increasing number of studies that include clinical population in the examination of OIR, studies on how children that are affected with cleft lip and/or palate (CL/P) participate in OIR practice is scarce. Although CL/P is a developmental disorder

where it affects the muscle involved in language production (Klintö, Falk, Wilhemsson, Schönmeyr & Becker, 2018), several studies have shown evidences on the children to also be at risk of experiencing difficulties in other aspects of language functioning particularly conversational skills (Frederickson, Chapman & Hardin-Jones, 2006; Chapman, Graham, Gooch & Visconti, 1998). In fact, these problems can continue to persist until late adulthood even though corrective surgery has been performed (Havstam & Lohmander, 2011).

As an overview, CL/P is one common type of facial deformity where the prevalence is estimated to be at 1 in 700 live births (Hlongwa, Levin & Rispel, 2019). The occurrence is recorded to be high among Asians while it is less common to occur in the African-American population (Ittiwut, Siriwan, Suphapeetiporn & Shotelersuk, 2016). The presence of CL/P causes opening or "fistula" (Salimi, Aleksejūnienė, Yen & Loo, 2017) at varying severity level that can affect either the upper lip or the palate. In certain cases, both areas can be jointly affected thus resulting in cleft lip and palate (CLP). Many reasons can cause cleft to develop but often, the causes are primarily linked to environmental factor i.e. being surrounded by chemical materials during period of pregnancy and family genetics (Burg, Yang, Yao, Magee & Figueiredo, 2016).

Corrective surgery is one of the main treatment plans and usually is performed when babies reach certain level of weight or age in order for them to survive the procedure. Prior to surgery, difficulties in feeding and breathing are common. Babies will also be at risk of language delay due to physical abnormality of speech organs that negatively affects the place and manner of articulation (Sreedhanya, Hariharan & Nagarajan, 2015). Thus, one primary reason for early corrective surgery is to prevent language developmental delay and improve overall speech particularly sound articulation (Kazakova, 2012).

Due to physical deformity of speech organs that is apparent, discussion on the language performance of affected children always focuses on their phonological aspect which undoubtedly is the most salient feature (Hardin-Jones & Chapman, 2011). However, there is indeed an increasing number of studies that examine other aspects of language problem in CL/P children such as studies in lexical and pragmatics (McGahey, 2004). For example, children with CL/P are reported to have smaller size of vocabularies at the beginning of language acquisition process (Freda, Selena, Chastan & Seok, 2016) and when they reach school-age, problems in social interaction skills such as giving inaccurate responses are evident (Frederickson et al., 2006).

Overall, the presence of CL/P at varying degrees can be said to have a negative impact on not only speech articulation, but also the other linguistic domains that include pragmatic functioning (D'Antonio & Scherer, 2008). Taking this as point of departure, the present study has the aim of examining OIR sequence in everyday interaction between parents and their children with surgically repaired CL/P. OIR is one tool that can be used to measure communicative competence (Price, Vizoso, Ellerbee, Roberts & Sideris, 2018). Examining how these children participate in OIR can provide deeper understanding on the status of their pragmatic functioning.

1.2 Problem Statement

Current available literature have documented OIR practices from various aspects of investigation. Discussions include strategies employed by speakers in daily interaction (Kendrick, 2015), examination on OIR in second language acquisition (Wong, 2000; Plejert, 2004), roles of OIR in classroom discourse (Razfar, 2005) and practices of OIR that occur in interaction with individuals with language-related impairments such as aphasia (Barnes, 2016), autism (Wiklund, 2016; Keen, 2005) and hearing loss (Ekberg et al., 2017; Lind, Okell & Golab, 2009). In addition to this database, there are studies that

highlight the OIR practice in cross-cultural interaction (Park, 2007; Egbert, 2004) and a few studies that offer side discussion on its connection to speakers' cultural or membership identity (Huensch, 2017).

However, one notable limitation on this growing number of studies is the homogeneity of data source. Kendrick (2015) claimed that English has been the most studied language within the scope of OIR. Even though the operation of OIR takes universal format in its structure, the manner for speakers to carry it out can vary across languages (Sidnell, 2008) and may be tied to particular linguistic system (Dingemanse, Blythe & Dirksmeyer, 2014). Languages across the world are built in different and unique linguistic systems that are seen in their syntactic, phonetic or semantic properties (Lupyan & Dale, 2016). This system is found to have a role in interactional activity (Svennevig, 2008; Sidnell, 2008). In fact, it is suggested that OIR is controlled by the language's grammatical aspect (Hayashi & Kim, 2015).

Given that OIR is a language-specific activity (Dingemanse et al., 2014), it is not ideal to generalise findings on the operation of OIR sequence from one studied language only. It is important to include other languages into the study of OIR such as Malay language that has different linguistic system. Malay language displays several linguistic differences than English such as unavailability of inflectional morpheme (Goddard, 2002) and its simple phonological structure (Zuraidah, Yong & Knowles, 2008). In English, feature like phonological stress has been identified to possess certain interactional meaning during the practice of OIR (Egbert, 2004) or even overall repair activity (Forrester, 2008). However, it may not be the case for Malay language due to disassociation of the language to the notion of stress (Zuraidah et al., 2008). This hence could suggest different strategies for Malay language speakers to design their OIR practice.

Another central issue relates to the communicative competence of individual with history of cleft. Cleft at its various occurrence i.e. affecting either lip and/or palate is known to affect normal sound production. Even after corrective surgery that is performed during infancy, speech problems can persist until adulthood (Havstam & Lohmander, 2011). With this limitation, it might cause children to develop poor conversational skills. Even though overall pragmatic functioning is claimed not to be affected by the presence of cleft (D'Antonio & Scherer, 2008), studies like Frederickson et al. (2006) and Cocquyt et al. (2012) have indeed suggested the possible deficiency in the area among children with history of CL/P. With this understanding, it is expected that interaction process with them can contain high frequency of breakdowns. In addition, restoring mutual understanding through OIR practice can be a challenging activity given their limited linguistic skills.

1.3 Research Objectives

Understanding repair practices can give information on how social action is accomplished (Forrester, 2008) and measure speakers' communicative ability (Price et al., 2018). Speakers use various resources that are available in language to initiate repair and offer repair solution so interactional breakdowns can be resolved. With suitable and accurate resources, it can guarantee a smooth running of communication process between speakers and success for them in exchanging information.

Section 1.1 has highlighted the nature of OIR practice that is described to be cooperative behaviour (Dingemanse & Enfield, 2015). With this understanding, it could be expected that OIR practice in interaction with surgically repaired cleft children that are understood to have certain language limitations can be challenging. Reasons for troubles to occur during the interaction process may not be similar to interaction between

non-cleft individuals. Furthermore, how they and their co-speakers address such troubles and find their way out for interaction to progress may involve different strategies.

This study first aims to identify reasons for troubles to occur in interaction between parents and their surgically repaired cleft children. Specifically, this objective seeks information on the sources that cause OIR to be launched and suspend the on-going topic of interaction.

Following this, the study attempts to investigate the strategies for parents and such children to initiate repair. In other words, this study examines methods for them to highlight the troubles and at the same time, request for repair to be given following the occurring troubles. The strategies are looked into two groups of speakers i.e. parents and surgically repaired cleft children. This then allows the study to identify any similarities or differences between these two groups in their strategies to initiate repair especially in resources that they use to perform the action.

Finally, strategies for them to repair following initiation turn are studied. Similarly, examination is made on two groups of speakers which are parents and surgically repaired cleft children. Analysis includes the resources for parents and children to repair that consequently, resolve occurring troubles.

1.4 Research Questions

Based on the research objectives that are explained in Section 1.3, the following research questions are developed.

a) What are the sources of interactional troubles in interactions between parents and their children with surgically repaired cleft? Specifically, what causes troubles to occur when they interact with each other?

b) When troubles occur, how do parents and children with surgically repaired cleft initiate repair? What are their strategies to highlight the troubles and request for repair? What are the linguistic and non-linguistic resources that they use to construct their repair initiation turn? Are there any similarities or differences in their strategies?

c) Following repair initiation, how do parents and children with surgically repaired cleft perform repair solution? What are strategies that they use to repair the troubles? Are there any similarities or differences in the resources that they employ to construct the repair turn? In addition, are there any possible connections between initiation turn, repair solution and types of trouble source?

1.5 Research Scope

This study has its primary focus on the practice of OIR in everyday interaction between parents and their children with surgically repaired cleft. OIR involves commitment from speakers in the interaction to reinstall their shared understanding that has been interrupted by certain troubles. In this sense, it differentiates itself from other repair trajectory i.e. self-initiation of repair that does not involve other speaker in the activity. This study specifically investigates strategies for speaker to initiate repair from trouble source speaker and how repair is then offered. Instances where repair is self-initiated or given by speaker other than speaker of trouble source are not part of examination.

This study recruits Malay speaking families who live in various parts of Klang Valley, an area that is centred in Kuala Lumpur which is the capital city of Malaysia and other adjacent cities located in another state, Selangor that is situated just outside of Kuala Lumpur.

Each recruited family comprises parents and their children with surgically repaired cleft. The children are at primary school age during the period of data collection. They were born with different types of cleft at various severity level and have undergone corrective surgeries during their infancy periods. Parents on the other hand have no history of any speech predicaments. The participation of these families is based on recommendation from cleft centres. Their everyday interactions are recorded during home-based activities such as family meal time within the comfort of their homes. The study does not impose any situations or topics for them to interact and as such does not limit participants to any activities or interactional topics.

1.6 Significance of Research

The significance of the present work can be seen in its extension of empirical database and implications of findings.

First, this study extends current literature on the organisation of OIR sequence within the discourse of parent-child interaction. Current studies that investigate repair to interactional troubles in asymmetrical interaction are available but heavily focus on the English-speaking population (Kendrick, 2015). This study thus contributes to the increasing data on other languages by including Malay-speaking families into its investigation. The findings that will be obtained can be used as comparative data for future study that intends to conduct typological work.

By including Malay-speaking participants, this study can lead to deeper understanding on how social interactions between Malay parents and their children are conducted within the discourse of repair activity. There are several studies that include similar group of participants but they differ by addressing other issues such as effects of parental communication on adolescent's social behaviour (Asbah & Nur Azah, 2013) and

differences in parental style of communication between social classes (Keshavarz & Rozumah, 2009). This work is assumed to be among the initial works that examine repair practice in asymmetrical interactions among Malay speakers.

Next, the children included in this study were born with various types of cleft. Cleft is understood to affect speech production and despite early preventive treatment which is corrective surgery, the issue of speech intelligibility can continue to persist. Studies have documented children with history of cleft to be passive conversationalist that is judged through less topic initiation made in interaction and reliance on co-speakers to lead the interaction (Frederickson et al., 2006). This issue however has been studied over the years through various quantitative approaches such as the use of questionnaire and parental checklist (Hlongwa & Rispel, 2018). This study instead attempts to investigate through the use of Conversation Analysis (CA) which is a qualitative approach. Findings that are to be obtained can provide detail account on what actually happens during the interaction.

In addition, findings from this study can inform clinical practitioners that conduct treatments for speech outcome of cleft patients by incorporating pragmatic approach into the existing treatment plan. Speech treatment for cleft patients heavily rests on phonetic examination of affected sounds but as several studies such as Cocquyt et al. (2012) and Reddy, Subramaniyan and Nagarajan (2017) have shown, participation in interaction can also be reduced by the presence of cleft. Therefore, this study can strengthen the needs for a more comprehensive cleft treatment plan.

Finally, this study provides pragmatic understanding on how parents with such children participate in their daily interaction. Parent-child interaction is an important platform especially for children to acquire necessary language and social skills. This study can serve as a window to see how parents attend to their repaired cleft children who are limited in certain linguistic and social aspects. Information on such will be useful for any

relevant practitioners such as school teachers and counsellors to increase the quality of life for such individuals.

1.7 Limitations of the Study

This study obtained its primary data from three families that consist of father, mother and the children. Data are naturally occurring interactions between them within home context only. Most data are obtained through dyadic interactions while only few interactions are available as multi-party interactions. Even though interactions are recorded within home compounds and with familiar conversational partners, the presence of recording tools i.e. video camera and the researcher himself may cause participants especially children to be reserved than their usual practices.

In addition, recruitment of participants into this study is made through recommendation from medical centre and cleft association that the participants attended. The researcher has no control on first-hand selection rather the selection is based on recommendation given by the two authorities. This may provide biasness especially when the participants with history of cleft are recommended due to having little problem in interactional activities.

Finally, this study opts to overlook the variable of socioeconomic status of the participants. Several studies such as Chen and Berdan (2006) and Thompson and Foster (2014) have shown connection between patterns of interaction and family's socioeconomic status. These studies have also shown evidence on how relationship between parents and children is shaped by their socioeconomic background. However, in the present work, this particular variable is not emphasised.

1.8 Definition of Key Terms

A number of terms that appear throughout this study are important to be operationally defined so that ambiguity to what they mean can be avoided.

Interactional troubles refer to problems related to mishearing, mispronunciation or misunderstanding that occur during interactions (Schegloff et al., 1977). It can also be referred to as conversational breakdowns or communication breakdowns. To stay consistent, this work uses interactional troubles to describe the phenomenon.

Repair initiation describes situation when speaker upon receiving problematic turn asks for repair so the trouble can be resolved (Hayashi & Kim, 2015). The initiation is made through various strategies and it should invite speaker of trouble source to give repair in the following turn.

Repair solution refers to strategies employ by speakers to repair following initiation in the previous turn of speaking. The strategies to construct repair turn are made when speakers employ available resources that can either be linguistic or non-linguistic.

Parent-child interaction refers to specific discourse this study intends to examine where the interactions involve parents and their children. In this study, the interaction can be dyadic where only one parent with his/her child are recorded or multi-party where the interaction includes both father and mother with their children.

Cleft refers to physical condition where the upper lip and/or palate is distorted (WebMD, 2018). Scar is apparent after corrective surgery in the case of cleft lip. Cleft can be classified to specific types according to affected area(s).

Children with surgically repaired cleft refer to children in this study where they were born with various types of cleft. They have had corrective surgery during infancy periods

and within the data collection period, they did not attend any speech treatments. However, other treatments relevant to cleft were still on-going such as dental and hearing check.

Malay speaker describes participants of this study; both parents and children are Malays and speak Malay language as their first language. As they live in Klang Valley, the accent they use in their daily interactions is common to the geographical area.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents discussion on relevant literature that provide the study with its direction and design. It explains first the concept of turn taking and adjacency pair in interaction before giving an overview on the discourse of parent-child interaction and how such discourse is important for positive development of a child. Next, the chapter focuses on breakdown that can happen in interaction by detailing the causes and its consequences to interaction process. Further, the concept of repair that is governed within the methodology of Conversation Analysis (CA) is introduced. Discussion includes what repair is, role of CA in examining everyday interaction and practice of repair in language-impaired population. Finally, the chapter gives overview on cleft lip and/or palate (CL/P) and describes conversational skills of children with history of CL/P.

2.2 Interaction Process

CA as an inductive and microanalytic framework views everyday interaction between people as a process that is bound to specific order (Sacks, 1992). The orderliness is accomplished through interactional practices such as turn taking, adjacency pair and repair (Hoey & Kendrick, 2017). In this section, the notions of turn taking and adjacency pair are first introduced.

2.2.1 Turn Taking

Naturally, speakers in interaction take turn to speak. According to Sacks, Schegloff and Jefferson (1974a), the notion of turn taking describes the system of speech exchange between speakers. Sacks et al. (1974a) reported the following rules of turn taking in any conversation:

a) There is a speaker change

b) One speaker speaks at one time

c) It is common for many speakers to speak at one time, but the occurrence is brief

d) There is no gap between turn transitions

e) Turn order is not predetermined

f) Turn size can vary

g) Length of conversation can vary

h) Topic in conversation is not predetermined

i) Turn distribution is not fixed

j) Number of speakers in conversation can vary

k) Talk can be continuous

l) Turn allocation techniques are observed and used by speakers

m) Turn constructional units can be different

n) There is repair when communication breakdowns happen

In particular to turn allocation techniques, three rules are observed to ensure the passing of turn happens without problems (Williamson, 2016). The rules are a) current speaker selects the next speaker and it is an obligation for the selected speaker to take up the turn; b) any speaker can take up the turn if current speaker does not select the next speaker and c) the current speaker can continue to speak should no other speaker claims the turn. Table 2.1 shows an example of turn allocation components.

Table 2.1: Turn allocation component (Sacks et al., 2010, pp. 703)

Turn allocation component
Sara: Ben you want some ( )? *Ben: All right I'll have a* *((pause))* *Sara: Bill you want some?* *Bill: No*

In Table 2.1, the passing of turn between Sara and Ben is tied within the rules. Sara as the first speaker selects Ben to be the next speaker when she made an offer directly to him through name-calling strategy i.e. Ben. Ben responded with an answer but when there is a pause in the turn, Sara claimed the next turn (self-selection) by making similar offer to another speaker which is Bill.

Consequently, the system constitutes another component of turn taking which is Turn Construction Unit (TCU). TCU is the fundamental segment in turn taking system. The components of TCU are characterised through predictable closure of unit (Levinson & Torreira, 2015). According to Selting (2000), the unit can be clausal, phrasal or lexical. Therefore, turn can vary in size, length or even linguistic texture (King, 2010). TCU is important because it projects what to be in the next turn. Table 2.2 exemplifies components for turn construction of single-word turn, single-phrase turn and single-clause turn.

Table 2.2: Turn construction unit (Sacks et al., 2010, pp. 702-703)

Single-word turn
Desk: What is your last name Loraine? *Caller: Dennis?* *Desk: What?* *Caller: Dennis*
Single-phrase turn
A: I have the- I have one class in the evening *B: On Mondays?*
Single-clause turn
A: Uh you been down here before havenche *B: Yeh* *A: Where the sidewalk is?*

At the end of the unit where change of speaker may occur is known as Transition Relevance Place (TRP) (Sacks et al., 1974a). TRP is the place where role of speakership can change in order to keep the progression of turn taking (Singh & Singh, 2013). Similarly in Table 2.2, TRP can be seen at the end of each utterance (e.g. after "Loraine?",

"evening", "havenche"). According to Gardner and Muhsin (2015), the normal space or when TRP begins and ends is one beat of silence; it starts from the final accent in TCU and ends in the onset of next speaker's TCU. Should speaker take time beyond the norm, the turn taking system can be problematically treated (Gardner & Muhsin, 2015).

In completing TCU and TRP, grammar becomes a basic resource (Mazeland, 2012; Sacks et al., 1974a). Schegloff (1996) provides examples of particles and tag words to highlight the interdependency between grammar and turn taking procedure. However, other resources have also been highlighted such as prosodic features and non-verbal behaviours such as eye gaze (Selting, 1996; Beňuš, Gravano & Hirschberg, 2011). This is important so the next turn can be designed and passed to another speaker accordingly.

2.2.2 Adjacency Pair

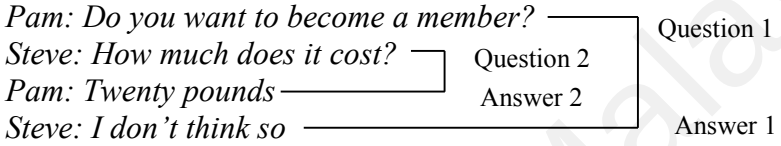
Discussion on turn taking system certainly highlights the concept of adjacency pair. This system deals with actions such as question that requires an answer, greeting to be responded by greeting and offer is taken with acceptance or rejection (Gardner, 2004). The system of adjacency pair has indeed defined talk as sequencing of actions. In fact, adjacency pair serves as "fundamental mechanism for keeping people attentive in conversation" (Sacks, 1992, p. 537). According to Schegloff and Sacks (1973), adjacency pair is produced when speaker reaches its possible completion of a TRP in first pair part. This is followed by second speaker who should also produce the same pair type.

Adjacency pair is to be produced by two different speakers in the interaction (Wiratno, Sumarlam & Susanti, 2018). In other words, adjacency pair has two parts where part one is said to be the proposal (e.g. question, offer or invitation) while the second part is the uptake of the proposal (e.g. answer, acceptance or rejection) (Schegloff & Sacks, 1973). Without the second part, the interaction can experience social disruption and this makes

adjacency pair a mutually dependent utterances (McCarthy, 1991). In everyday interaction, the most common adjacency pair that can be found in many utterances is question-answer pair (Liao, 2002).

Extract 2.1 shows one example of question-answer pair. In this example, there exists an insertion sequence whereby, the second part is responded after another complete adjacency pair (Packer, 1999).

Extract 2.1: Adjacency Pair and Insertion Sequence (Williamson, 2016)



In Extract 2.1, an insertion sequence occurs in between Question 1 and Answer 1 where Steve responded to the first Question 1 by another question (Question 2) which at the same time, launches another possible adjacency pair. This is responded with an answer (Answer 2) that completes the insertion sequence before Steve responded with Answer 1 following responses given earlier.

Extract 2.1 also shows that adjacency pair is subjected to expansion (Gardner, 2004). There are three types of expansion that an adjacency pair can have; pre-expansion where it projects the next adjacency pair, insertion expansion which comes in between first pair part and finally, post-expansion where it comes later in sequence (Schegloff, 2007). However, expansion is still organised around adjacency pair even the most complex system that requires several minutes of talk for the first part.

This section has introduced the turn taking system which is fundamental for interaction to progress. The next section focuses on the discourse of parent-child interaction.

2.3 Parent-Child Interaction

One of the most influential and meaningful relationships in this world can be seen in familial relationship or specifically between parents and their children (Hortsman, Hays & Maliski, 2016). Parents and children form membership categories that exist in relation to each other. This is to say that the existence of one category is not complete if another category is missing (Narvanen & Nasman, 2004). In other words, someone will have an identity of "child" when there is "parent" to constitute it.

Parents and children highly influence one another in many aspects of living (Palica, 2007). Especially for children, such relationship provides them with the basic of form to be exposed to the world (Ponn, 2016). Hence, it is crucial for parents to develop and maintain positive relationship with their children for the future benefits. In doing so, everyday interaction is one of the direct mechanism that allows connection between parents and children to build and for them to be engaged with each other (Hortsman et al., 2016).

Parent-child interaction holds one of the most important roles in children's life. For children, parents are the earliest conversational partners that they will encounter (de Carvalho & Seidl-de-Moura, 2011). Through these early interactions, children learn to communicate with the surrounding people. These interactions can also be seen to influence personality formation, academic achievement and overall behaviour (Rasmussen, 2004). In addition, parent-child interaction is found to influence children's growth, socio-emotional development, language acquisition and literacy skills (Ponn, 2016).

2.3.1 Effects of Parent-Child Interaction

Studies that examined the effects of parent-child interaction on child's development have indeed highlighted several key contributions.

First, parent-child interaction can give impact on the physical growth of babies. Babies at the early stages respond to communication through face, gestures and voices of their parents. With their ability to express needs through movement or facial expressions, it can help the parents to understand their communicative intents and attend to their needs such as to feed, sleep or simply interact (World Health Organisation, 2004).

Stewart and Meyer (2004) showed that there is possible link between parents communicating with their newly born infants during non-feeding situation that can consequently affect the feeding and sleeping patterns of the babies. In their study, they included five mother-child dyads that were recorded using standardised instrument on their parent-child interaction during non-feeding times to see its relation to sleep and feeding patterns. Overall results showed low level of interactions in almost half of the samples and majority of them recorded irregular sleep and feeding patterns.

In addition to physical growth, several studies have also shown effects of positive parent-child interaction on the healthy development of the brain. Takeuchi et al. (2015) investigated the development of brain structure and its connection to the frequency of parent-child interaction. Using cross-sectional and longitudinal analysis, this study showed the high frequency of time spent with parents has positive impact on children neurocognitive development. This particular finding complements what has been found earlier whereby simple interaction that parents have with their children can physically shape the brain (Onion, 2005).

With healthy growth of brain structure, its consequence can be further linked to the children's psychological well-being. Such condition can assist children in their ability to handle stress and feel emotionally secure that progress during these early years of living (Stock & Feragen, 2016). A number of neuroscience studies have identified one part of human's brain that is responsible to regulate individual's emotion (Stannard, 2017; Salzman & Fusi, 2010). Overall, psychological well-being is determined by the condition of brain that children are developing which is largely influenced by parent-child interaction (De Falco et al., 2014).

Another effect of parent-child interaction can understandably be seen on the language development. Many studies have shown the positive relationship between quantity of interaction parents had with their children and the child's vocabulary size (e.g. Zauche et al., 2017; Cartmill et al., 2013; Leech et al., 2013). In general, children are expected to expand their vocabulary size when they participate in as many interactions as possible with the parents (Lowry, 2016). According to Hart and Risley (1995), the vocabulary size can be greater for children when parents increase the amount of interaction with them. Having a good size of vocabulary is one important predictor for school readiness and future academic performance (Zauche et al., 2017).

When child gets older, quantity of words is not the only requirement to expand the vocabulary size. According to Rowe (2012), quality of words use by parents in interaction also supports the child's vocabulary to grow. Parents can use many unfamiliar words and later explain what the words mean to the children. However, this can create disparity for children coming from different backgrounds such as socioeconomic status (SES) and parents' educational level as parents from higher SES are more proficient to employ complex lexical than parents with lower SES (Schwab & Lew-Williams, 2016).

Interaction with parents can also shape the conversational behaviour of the children (Knight, 2017). Children acquire appropriate speech acts such as asking questions, responding to queries and others through participation in everyday interaction. Koegel et al. (2014) showed significant increase in initiation skills made by autistic children after being put in active parent-child interaction for several months. Children with higher social interaction skills are often seen to possess greater self-esteem and willingness to participate in interaction (Changnon, n.d.). Similarly, Scott (2008) shows children have higher engagement in interaction when parents used more descriptive language and followed their children's lead. In addition, there is a high chance for children to acquire good communication skills if parents adopt a more open communication style (Zolten & Long, 2006).

Finally, parent-child interaction can positively impact children's academic achievement that is pertinent to success in life. Zhou et al. (2005) showed the frequency of parents interacting with their children especially during joint activities which may help children to acquire better skills in writing numbers. Similarly, several studies have indicated that parent-child interaction, especially that is stimulating and responsive, can benefit children in their academic achievement (Mahuro & Hungi, 2016; Topor, Keane, Shelton & Calkins, 2010; Caro, 2011).

2.3.2 Features of Parent-Child Interaction

Parent-child interaction is a process between an adult and a child. In this context, adult is understood to have more experience and better language skills than the child when they interact with each other. For this particular reason, parent-child interaction is characterised as asymmetrical interaction (Busch, 2011) and is different than adult-adult interaction which is symmetrical (Forrester, 2009).

The asymmetric nature of parent-child interaction is also defined through the rights for each category i.e. parents and children to participate in the interaction. According to Speier (1976), participants' rights in parent-child interaction is controlled through an asymmetrical distribution of speaking turns. In other words, children have limited rights and rely on the adults as they move along in the interaction. For instance, they may be interrupted by adults during interaction. Further, O'Reilly (2008) claimed that adult can simply ignore children's interruption during interaction but this may not be possible in adult-adult interaction.

Parent-child interaction often occurs within the context of daily interactions where speakers orient to the rule of sequential structure (Francis & Hester, 2004). This rule refers to situation when one's speech is related to what is said in the previous turn. It thus requires speakers to analyse what has been said so that the response can be accurately designed. However, given the children's right in interaction process, their position to speak is restricted thus resulting in a particular interactional exchange; for example giving answer to question. According to Sacks (1995), this is due to their status in the interaction that holds the membership category of a child.

In relation to the membership category, parents can employ their status as adults in the interaction to easily accomplish the intended social action. One feature that can be applied is when they enforce silence or terminate children's speech (Busch, 2011). For example, when a child interrupts the adult's speech, he/she can simply be ignored or given a rather imperative expression such as "keep quiet". On the contrary, children may not be able to do as such because of their membership category. If a child interrupts parents' speech, it will be considered as impolite or disrespectful (Busch, 2011).

Speier (1976) has identified six restricted rights for children when they participate in interaction with adults which are as follows:

a) enforce silence

b) interfere during on-going talk

c) require politeness

d) terminate other's talk

e) dismissal of talk

f) removal of one's talk

Despite children having these restrictions, there exist strategies for them to employ when they participate in interactions with parents or adults (Sacks, 1995).

The success of parent-child interaction especially in everyday setting depends on the adults (Elbers, 2004). Given the limited language skills and roles of children in interaction, adults can apply several strategies to ensure the success of its process. First, the adult can adapt him/herself to the children's level which requires modification on information that is suitable to the children's age or level of understanding. It is also recommended for adults to be vicarious when speaking to children so that they can model the accepted behaviour that the children can later adapt. The use of these strategies can not only ensure the success, but also invite children to be more active in the interaction even though skills of both speakers are not similar (Elbers, 2004).

It is also worth mentioning on the phonetic aspect of adults and children's speech during interaction. Gerosa, Lee, Giuliani and Narayanan (2006) showed the distinct difference in the consonants and consonant-vowel transition between adults and children. Generally, this study showed that children's speech is characterised as having shorter transition duration and larger spectral difference in the consonant-vowel pair than the adult speakers. Similarly, children are found to have variation between vowel and consonant durations during laughter than the adults (Menezes & Diaz, 2011).

2.3.3 Interaction between Parents and Children of Malay Background

It is undeniable that culture has had a huge role in the overall process of interaction because it influences individual's response to surroundings (Fauziah, 2005). The Malay community is known to have a high collectivistic nature (Melati, Dini, Norfaezah, Nor Hasniah & Ida Hartina, 2019); interaction between parents and their children is seen as something that is very important in life (Asbah & Nur Azah, 2013). In addition, collectivistic nature of the Malay community also helps the interaction to be conducted within specific orientation that will be considered as normal while interaction that goes beyond the norm often is denounced by the society (Asbah & Nur Azah, 2013).

Generally, collectivist value differs from the individualism in its emphasis on interdependence between people (Peng, Haibo, Liuna, Kevin & Yuping, 2019). With this, the collectivist society is often described as "group-oriented people" and has high value on public roles and relatives (Kavanagh & Yuki, 2017). The value of individualism still exists but it is important as long as it benefits the public (Fauziah, 2005).

In parent-child interaction of a collectivist society like the Malays, the values are manifested in the communication style and interpersonal relationship between parents and their children. Parents have authority and they are viewed as leaders who must be respected by the children. This authoritarian parenting style that is common in collectivist society usually results in children to have high agreeableness but low extraversion as compared to children in individualist society (Keshavarz & Rozumah, 2009). The high respect to parents by children is also influenced by the religious background of Malay society that has Islam as their religion. In fact, it is considered as religious duty for children to serve their parents (Yaacob, 2005).

There exist several responsibilities for children when they interact with their parents. This serves as rules and regulations for children especially in collectivist society that must be observed and if the style deviates from this, it is considered as violation of cultural or even religious norms. First, children must speak in good manner especially in the presence of the elders as a sign of respect and politeness (Lim, 2005). Next, children must also look at their parents or develop eye contact for avoidance of eye contact is considered disrespectful (Syed Hassan, 2004). In addition, children must listen to their parents' advice and opinions because their position in the overall structure of a family is high (Asbah & Nur Azah, 2013).

The next sub-section describes features of Malay language which is the first or native language of the Malays.

2.3.4 Features of Malay Language

Malay language or *Bahasa Malaysia* is the national language of Malaysia. There are two variations of the language namely Standard Malay and Colloquial Malay. Standard Malay is usually spoken in formal context such as television and radio broadcasting, education or parliamentary meeting while Colloquial Malay is the reduced or simplified version of Standard Malay that is used by people when they interact in informal conversations. Hence, Colloquial Malay comprises of several dialects that are typically regional-based such as northern dialect, east-coast dialect or mid-central west dialect (Aimi Syazana, 2012). But generally, both Standard Malay and Colloquial Malay present different structure of lexical and grammar (Asmah, 1993). However, speakers can easily switch between the varieties depending on needs and interactional context (Koh, 1990).

In the aspect of grammatical structure, Standard Malay presents a rich derivational morphology and affixation is frequent to take place than in Colloquial Malay (Goddard,

2002). Words within the class of nouns often are constructed through affixes such as *pe/per…an*, *mem/men…kan* or *ke…an*. For example, the verb *kerja* (work) can take the form of *pekerjaan* (occupation) or *pekerja* (worker) (among the examples). The use of such affixation can not only change the meaning of the word, but changes the syntactic rule as in the example; from verb to noun. However, this rule is only common to be used in Standard Malay while in Colloquial Malay, many of these affixations are usually abandoned (Koh, 1990).

Next, the pronoun system in Standard Malay and Colloquial Malay can be categorised into first, second and third personal pronouns. Standard Malay uses quantifiers and adverbials such as *semua* (all) to represent singular pronouns while Colloquial Malay contains certain typical pronouns that might not be available in Standard Malay such as *gua* (I), *hang* (you) or *lu* (you). Some singular pronouns in Colloquial Malay take the form of pluralizing morpheme such as *orang* (Koh, 1990). On the other hand, term of address which is used to stress on relationship is common in Colloquial Malay and this includes words like *mak* (mother) or *ayah* (father) to denote first person pronoun *saya* (I). This feature is not common when people interact in Standard Malay.

Other interesting aspect of Malay linguistic is its phonetic system. Malay language generally consists of sounds that are principally borrowed from the English (Mohd Nazri et al., 2016) and Arabic (Uni, 2015). Pronunciation of lexical in Colloquial Malay often takes reduced or simplified form than in Standard Malay. For example, *tak boleh* (cannot) is phonologically reduced to *tak leh* and determiners *itu* (that) and *ini* (this) can be pronounced as *tu* and *ni*. Such aspect of phonology marks the informality feature of Colloquial Malay than in Standard Malay that has preference for complete pronunciation. Other aspects of phonology include Malay to have more syllable-based rhythm than

English while stress has been reported to have light or almost non-existence of occurrence (Zuraidah & Knowles, 2006).

2.4 Breakdowns in Interactions

Breakdowns in interaction are not trivial matter (Benjamin, 2013). Avval (2011) referred breakdowns to problems that emerged while exchanging information. Lubinski et al. (1980) on the other hand defined breakdowns in interaction as troubles that break the on-going topic and interrupt the flow of the process. Occurrence of breakdowns can lead to misunderstanding between speakers and if speakers do not understand each other, it can seriously affect the coordination of social actions.

Reasons for breakdowns to occur can be different. As highlighted in the Shannon-Weaver's Model of Communication Process, noise that surrounds the communication process such as poor telephone network can interfere with quality of transmission of message from sender to receiver. Figure 2.1 shows communication model that highlights noise surrounding the process.

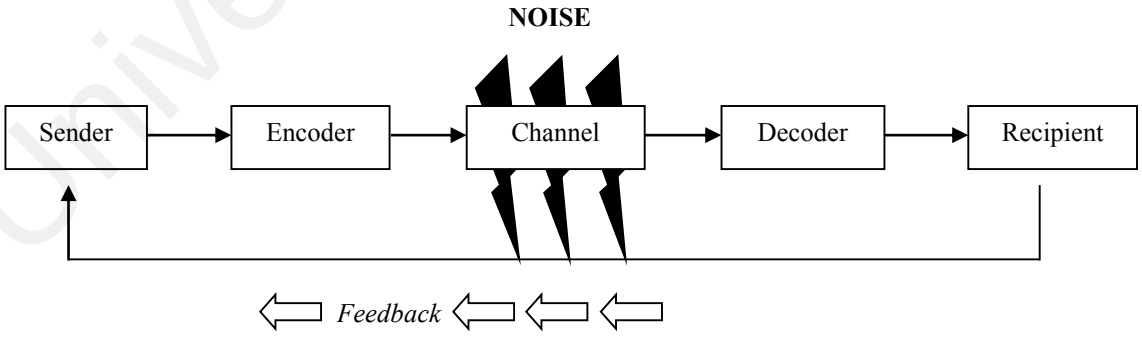


Figure 2.1: Shannon-Weaver's Model of Communication Process

In Figure 2.1, noise is positioned surrounding the channel that is used to transfer information from sender to receiver. This noise is commonly exemplified through physical noises such as thunder and crowd noise. For example, poor quality of network

is the ‘noise’ that interrupts smooth transmission of message from sender to receiver through telephone, which is the channel.

However, causes of breakdowns are not restricted to physical surroundings (Lunenburg, 2010). Ferencik (2005) listed problems that can occur during interaction; among them are mishearing, non-hearing, mispronunciation of words, factual errors, improper word selections, misunderstanding and non-understanding. Schegloff et al. (1977) in their discussion on repair generally categorised breakdowns in interaction into three categories namely misspeaking, mishearing and misunderstanding.

Misspeaking refers to the ability and competency of speakers to produce intended words during interaction. Slip of the tongue and speaking in non-native language can contribute to such problem. In addition, physical defects that hamper speech organs such as cleft can cause unintended misspeaking due to limited ability to produce specific sounds. On the other hand, mishearing describes situation where listeners could not listen to what speakers say due to reasons such as low volume of speech or background noise. Finally, misunderstanding occurs when there is problem with comprehension of information. In this case, listeners interpret information differently than what speakers intend to (Sayer, 2013).

Breakdowns can lead to various negative consequences. Khairunnisa (2012) indicated that one of the effects of breakdowns is embarrassment due to misinterpretation of information (misunderstanding). When this occurs, it can further lead to other negative outcomes such as conflict, argument, breakdown of relationship and emotion. It is therefore important for breakdowns in interaction to be addressed and resolved.

2.5 Repair to Interactional Breakdowns

It has been noted earlier that primary consequence of breakdowns is on the mutual understanding between speakers. It is essential for speakers to quickly repair the breakdowns as they occur. 'Repair' is not merely a term but within the context of interactional breakdowns, repair refers to periods in interaction where breakdowns occur, are acknowledged by speakers and resolved (Lind et al., 2009).

The domain of repair was first introduced by Schegloff et al. (1977) through their seminal publication on repair practices in English language. The term becomes one of the key notions within the methodological framework of Conversation Analysis (CA). The following sub-sections explains the notion of repair and the practice of other-initiated repair within repair practice.

2.5.1 The Notion of Repair

Breakdowns that occur during an on-going interaction must be addressed in order to avoid any undesired consequences such as misunderstanding and disruption to organisation of social actions (Benjamin, 2013). Seedhouse (2004) defined repair as "treatment of trouble occurring in interactive language use" (p. 34). Thus, it is essential for speakers to have shared practices in identifying and troubleshooting the breakdowns quickly and efficiently when they arise. These practices are referred to as repair (Schegloff et al., 1977).

The term describes mechanism employed by speakers in addressing and solving conversational breakdowns in speaking, hearing or understanding. When repair takes place, current on-going interaction is temporarily suspended before resumed once breakdown is repaired (Hutchby & Wooffitt, 2008). Studies that investigate repair activities have increased significantly since the publication of seminal work by Schegloff

et al. (1977). According to Forrester (2008), analysis on how repair works can provide overview on how social action is organised. Repair can also be used to measure speaker's communicative competence (Price et al., 2018).

Organisation of repair is composed of two parts; repair initiation and repair outcome[1] (Yang, 2005). Repair initiation refers to the identification of trouble source and the needs for clarification while repair outcome includes solution to the breakdown. Consequently, these two parts of repair organisation are manifested in the four repair trajectories as the following.

a. *Self-initiated self-repair* (SISR): repair is initiated and performed by speaker that produced the trouble source
b. *Self-initiated other-repair* (SIOR): repair is initiated by speaker of trouble source but being carried out by listener
c. *Other-initiated self-repair* (OISR): listener initiated repair and speaker of trouble source produced repair
d. *Other-initiated other-repair* (OIOR): listener initiated the repair and later performed the repair

The organisation of repair also concerns the position of repair outcome within sequence. Hutchby and Wooffitt (1998) generally proposes three positions for repair; first position where repair occurs within the same turn that has trouble source which is turn completion unit (TCU). Second position repair is situated in the next transition relevance place (TRP) which in this case, repair takes place in the next turn after turn that contains trouble source. Finally, third position repair refers to repair that takes place in the third

[1] Fox, Benjamin and Mazeland (2012) termed repair outcome as repair proper.

turn within its sequence. Al-Harahsheh (2015) suggested all repair positions are to take place close to the trouble source turn.

In indicating there is trouble during the on-going interaction and later performing the repair, speakers can employ various strategies. In studies that investigate self-repair, repetition of trouble source seems to be employed in pre and post framing position (Sidnell, 2010). Schegloff (2004) also showed that self-repair is found to be framed through strategies such as insertion, deletion and replacement and reordering. This is particularly in the case of SISR when the trouble source and repair occur in the same turn position. The repair usually comes after problems such as disfluency or cut-off sound (Sidnell, 2010; Feltner, 2016).

2.5.2 Practice of Other-initiated Repair (OIR)

Section 2.5.1 has introduced the repair trajectories that function as strategy for speakers to suspend the on-going interaction and attend to interactional troubles. However, distinction between these repair types is made between who identifies troubles and initiates and who provides repair (Kendrick, 2015). Thus, it results in self-initiated repair whereby speaker of trouble source initiates repair and in most of the time, repairs the trouble. In contrast, other-initiated repair (OIR) occurs when speaker of trouble source is initiated to repair by another speaker in the interaction (Hayashi & Kim, 2015).

The focus of this thesis is OIR practice. OIR is considered a crucial activity within repair system that allows speakers to systematically deal with problems in speaking, hearing or understanding (Schegloff et al., 1977). OIR takes the form of sequence where trouble source turn is followed by initiation turn that is produced by another speaker and subsequently repair turn that brings speakership back to trouble source speaker (Kim, 1999). Extract 2.2 and Extract 2.3 show the practice of OIR in English conversation.

Extract 2.2: Shaw AFB (Schegloff, 1997, p. 508)

```
1    Mom    Cut that up Rob
2    Rob    hm?
3    Mom    I sa:id. "cut it(h)"
```

Extract 2.3: Virginia (Schegloff, 1997, p. 507)

```
1  Mom  [No, I didn' jog th]is mornin' 'cause I didn' have
        tah:me
2       (1.9)
3  Wes  Wel[l uh
4  Mom     [eh-huh! _hh [I h a d d a l s a l e t h a t started
        tida-]
5  Wes                  [I thought youl wuh getting' readyfuh
        next week.]
6       (.)
7  Mom  Huh?
8  Wes  I thought you were getting' ready fuh next week
```

Examples in Extract 2.2 and Extract 2.3 show the practice of OIR. Extract 2.1 begins with mom requesting her son, Rob to do something (cut that up). However, it may not be clear to Rob since he indicates the trouble in the second line. This results in mom to repeat her request with emphasis being included. Similarly in Extract 2.3, line 5 shows the speech by Wes that overlaps with previous turn of speaking (line 4). This has made the speech to not be clearly heard thus mom uptakes initiation turn in line 7. Subsequently, Wes repeats his speech as repair to the troubling situation (line 8).

These two extracts have highlighted the organizational structure of OIR. It can be seen that the practice is constructed by three core components; trouble source turn, repair initiation turn and repair turn. This forms a three-part interactional sequence in which repair to interactional troubles can be accomplished (Schegloff, 2007). Figure 2.2 illustrates the structure of OIR practice.

In Figure 2.2, OIR begins when other speaker initiates repair initiation turn (see Turn 2) due to trouble that occurs in previous turn (Turn 1). Initiation turn also creates repair turn that comes in Turn 3. According to Benjamin (2013), this action of creating trouble source turn is retroactive while creating the repair turn as next relevant action is prospective.

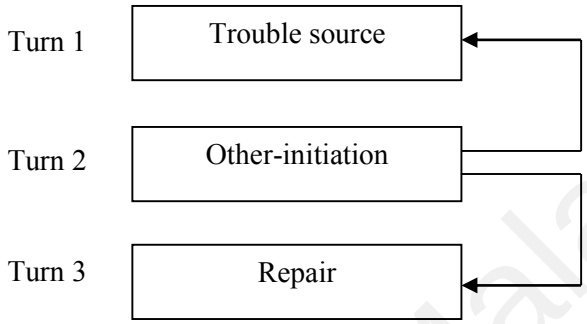


Figure 2.2: Structure of OIR practice

This 3-turn structure also enables OIR to form a side sequence within the overall interaction process (Schegloff, 1992). This is described as temporary departure from the on-going topic of interaction (Dingemanse & Enfield, 2015). The practice of OIR when it is launched suspends the topic of interaction and speakers attend to troubles that have occurred. Once repair is accomplished, the side sequence of OIR is closed and the previously suspended topic can be resumed.

However, it is not necessary for OIR practice to be designed within the 3-turn system. In certain cases, the sequence of OIR can be expanded to go beyond 3-turn. Extract 2.4 shows one example where OIR takes more than three turns.

Extract 2.4: UK Housemates (Kendrick, 2015, p. 167)

```
1    Jam   Rightm when are you ready?
2          (1.1)
3    Ker   Ready for what?
4          (0.9)
5    Jam   To do the boost.
6          (0.7)
```

```
 7    Ker    What boost.
 8           (1.1)
 9    Jam    Out the room.
10           (0.8)
11    Ker    ↑Ah>in about five minutes<
12           (0.2)
13    Ben    What room
14           (0.8)
15    Jam    This room
16           (0.5)
17    Ben    Boost? What's a boost
18           (0.8)
19    Jam    Do the boost
20           (0.2)
21    Ben    I don't understand
22           (1.0)
23    Jam    Leave
24           (2.8)
25    Ben    Whenever we're ready
```

In Extract 2.4, trouble happens when Ker is confused with Jam's question. This is evident in line 3 when he initiates repair to indicate his problem in understanding the context of Jam's question that wants to know when he is ready to probably go out. Jam appropriately repairs in line 5 but the repair does not successfully restore the understanding when the term 'boost' is not understood by Ker. Again, Ker initiates repair by seeking clarification (line 7) before Jam gives repair in line 9. The repair seems to be successful when Ker exhibits understanding through interjection 'ah' before giving response. This shows that one repair solution can become a trouble source and could launch another OIR sequence (Kendrick, 2015). Similar situation happens when Ben, another housemate joins into the interaction.

Another important aspect of OIR is the mechanism for the action to be performed. In diagnosing the trouble source, speakers can employ various resources available in language (Hayashi & Kim, 2015). In doing so, speakers need to be equipped with necessary language, cognitive and social skills (Cho & Larke, 2011). According to Dingemanse and Enfield (2015), OIR connects language, mind and social life. These skills actually help speakers to organise their OIR sequence that can quickly resolve occurring troubles. Specifically, speaker needs to design initiation turn that can inform

the co-speaker on what kind of trouble that has caused breakdown between them (Hayashi & Kim, 2015).

In a study on repair in American English, Schegloff et al. (1977) found five formats of design that are common to be used when speakers want to initiate repair. The identified formats are (i) using open-class word, (ii) question words like when, (iii) partial repetition of problematic speech with question word, (iv) repetition of problematic speech and finally, (v) offering candidate understanding through 'you mean' format. The following extracts exemplify each of the format of initiation turn.

Extract 2.5: Format 1 [Open-class word] (Kendrick, 2015, p. 168)

1	Will	Got football later
2		(0.7)
3	Jam	.fhh yah ((looks down at watch))
4		(0.8)
5	Max	Are [you playing?
6	Wil	[better go soo(h)n actually
7	Jam	**Huh?**
8	Max	Are you playing footy?
9	Jam	Y:eah I think so

Line 7 in Extract 2.5 indicates the use of open-class word "huh" as repair initiator that is delivered in interrogative intonation.

Extract 2.6: Format 2 [A question word] (Benjamin, 2013, p. 5)

1	A	but he used to work with Bill in Washington right
2	B	**who**
3	A	Jared

In format 2 as in Extract 2.6, the question word "who" is used as repair initiator when B experiences difficulty to know the person A is referring to. In addition, other question words such as "when" and "where" can also be used.

Extract 2.7: Format 3 [Partial repeat of trouble source with question word] (Kendrick, 2015, p. 170)

```
1    Bra   ((leans forward and looks into camera))
2    Sar   I'm pretty sure that just ruined [the study
3    Jes                                    [we're in a
4          stud[y
5    Mat       [we're-
6          (0.3)
7    Bra   The what?=
8    Mat   =it's som:e linguistic study about how (.)
9          people interact in conversation
```

In Extract 2.7 (format 3), the phrase that becomes trouble in line 2 is repeated with addition of question word "what" in line 7 to be used as repair initiation strategy.

Extract 2.8: Format 4 [Repeat] (Benjamim, 2013, p. 6)

```
1    A    and then there's a: French guy hh
2         (.)
3    A    Raphael
4         (0.7)
5    B    a French guy
6    A    yeah hhh
```

Format 4 is shown in Extract 2.8. The speaker B repeats the problematic part of the trouble source turn ("a French guy") as repair initiator.

Extract 2.9: Format 5 [Offering candidate understanding] (Benjamin, 2013, p. 6)

```
1    B    he's about to take his pants down
2         (0.2)
3    A    M- Michael Stipe
4         (.)
5    B    yeah
```

Extract 2.9 shows format 5 where speaker A is being specific in ensuring that both of them are referring to the same person when he mentions the name as way of seeking confirmation ("Michael Stipe").

Svennevig (2008) listed these formats according to their strength in specifying troubles in which open-class word is perceived to be weak due to its inability to inform what kind of trouble while offering candidate understanding is recognised to have higher strength. For example, when speaker uses "huh" instead of "I can't hear you", it does not provide a clear reason for trouble to occur rather, it leaves open to speaker of trouble source. Thus, it can create a vast trouble types ranging from speaking to understanding (Robinson, 2013). This requires speaker of trouble source to relate to context of interaction in determining the type of trouble before giving repair (Svennevig, 2008).

When being initiated to repair, speaker of trouble source by right should offer repair solution in the next following turn. Similarly, speaker can employ various resources available in language to repair. Studies like Wong (2000) and Bolden (2009) have informed on how repetition of trouble source can be one form of repair unit. This particular repair strategy is commonly employed by children (Keen, 2005). Other strategies include substitution of specific part in trouble source as repair strategy or to change the form of trouble source yet maintaining the meaning (Dincer & Erbas, 2010).

In summary, OIR practice is a cooperative behaviour (Dingemanse & Enfield, 2015) due to involvement of two speakers forming the sequence. This practice deviates itself from self-initiated repair because it allows researchers to examine how people accomplish mutual understanding during interaction (Schegloff, 2000). However, this may create a challenge in parent-child interaction where one party is not fully competent in language and linguistic skill i.e. asymmetrical role. In addition, someone with language impairment may find great challenges to participate in OIR activity.

2.6 Other-initiated Repair and Language Disorders

OIR practice requires speakers to be equipped with necessary language, cognitive and social skills (Dingemanse & Enfield, 2015; Cho & Larke, 2011). Given these requirements, one can hypothesise the limited ability in OIR practice by individual with specific language disorder. This section of the thesis introduces language disorders and highlights OIR practices in selected examples of language disorders.

American Speech-Language-Hearing Association (ASHA) defines language disorder as trouble in understanding others' speech (receptive language) and trouble to communicate with others (expressive language). It is possible for someone to be diagnosed with language disorder should he/she exhibit all or part of the difficulties. Language disorder can either be acquired disorders or developmental disorders (Bishop, Nation & Patterson, 2014). Acquired disorders are generally the result of neurological condition such as traumatic brain injury, aphasia or autism. On the other hand, developmental disorders refer to problems that the children experience while acquiring language such as distorted muscle of speech organs that can cause language delay. Examples of such disorders may include apraxia and cleft.

With language difficulties, participation in OIR may be a daunting task. This may also create frustration for their conversational partners as interaction becomes difficult. Many studies within clinical linguistics or communication disorders have documented various ways for such social action to be accomplished. The following sub-sections highlight OIR practices in selected language-impaired population.

2.6.1 Aphasia

Aphasia is an impairment that results from damage in the left cerebral hemisphere of the human brain (Code & Petheram, 2011). With such condition, an aphasic patient is often characterised as having difficulties in both expressive and receptive language at varying level (Samuelsson & Hyden, 2017). One characteristic of aphasic's speech is disruption in phonemic paraphasias such as "telephone" to "lelephone" (Nichelli, 2016). In addition, Bartha and Benke (2003) showed that aphasic patient has deficit in verbal short-term memory despite being intellectually normal. Difficulties in learning new words especially in foreign language are also evident (Penaloza et al., 2016).

Given their speech characteristics, many studies have investigated how OIR is designed in interactions with aphasic patients (Wilkinson, Lock, Bryan & Sage, 2011). Barnes (2016) showed the difficulties experienced by speakers with aphasia to repair without being supported by their conversational partners. This is especially in the case of using open-class repair initiator where it is open for speaker of trouble source to determine the type of trouble. Thus, it is suggested that simplifying trouble source turn can reduce the linguistic difficulty. The strategy can also increase the involvement of conversational partner in the repair practice.

2.6.2 Autism Spectrum Disorder (ASD)

Autism Spectrum Disorder (ASD) or Autism is neurological and developmental disorder that begins in the early childhood and lasts throughout a patient's life (MedlinePlus, 2018). Someone with autism may experience difficulties in social interaction that is characterised by an absence of functional speech that includes verbal and nonverbal and idiosyncratic use of spontaneous speech (Philip, 2008). In addition,

autistic children are also subjected to deficits in restricted repetitive behaviour, interests and activities (Wiklund, 2016).

Generally, autistic children exhibit poor eye contact during interaction (Madipakkam, Rothkirch, Dziobek & Sterzer, 2017), problems with turn-taking and interpretation of social skills (Chin & Bernard-Opitz, 2000) and inability to narrate story (Philip, 2008). This resulted in interaction with them to contain many types of troubles that lead to interactional breakdowns (Philip, 2008). Wiklund (2016) for example showed the children's constant avoidance of eye gaze and deviant prosodic features are among the reasons for OIR to be initiated.

Studies have investigated various strategies of OIR practice to resolve interactional troubles in interaction with autistic children (Volden, 2004; Delves & Stirling, 2009; Wiklund, 2016). Philip (2008) documented that OIR is achieved when speaker requested for specific information and seek confirmation. In addition, strategies such as direct request for specific information to be repaired or request for it to be repeated are also evident.

2.6.3 Hearing loss

Interactions with hearing impaired-individual are common to experience breakdowns (Ekberg, Hickson & Grenness, 2017). This further causes difficulties for someone with hearing problem to participate in social and cultural activities due to limited ability to listen to others (Lemke & Scherpiet, 2015). However, the implication of hearing loss is not only on the patients to interact efficiently but can extend to their conversational partners (Lemke & Scherpiet, 2015). Thus, the practice of OIR occurs frequently throughout the interaction process (Church, Paatsch & Toe, 2017).

In the practice of OIR, Ekberg et al. (2017) showed the importance of mutual gaze and body movement as these are found to be resources for the practice to be carried out. In addition, their conversational partners are also found to be using multiple repair strategies during single occurrence of interactional breakdown. Within the overall aspect of pragmatic skills, the skills of such individual were found to be delayed and showed differences than hearing peers. Some of their conversational behaviours include giving inappropriate responses or no response after being allocated with speaking turn (Most et al., 2010). Nonetheless, children who are deaf or hard of hearing exhibited wider range of skills such as asking more questions, initiating more topics and making more personal comments despite taking longer time to respond (Paatsch & Toe, 2013).

In summary, the language impairments that are discussed briefly in previous sub-sections (2.6.1 – 2.6.3) show similarities and differences in the types of troubles that cause interactional breakdowns and design of OIR practice. The next section provides information on cleft lip and/or palate (CL/P) which is the focus of this thesis.

2.7 Cleft Lip and/or Palate

According to WebMD, cleft lip (CL), cleft palate (CP) and cleft lip and palate (CLP) are variations of facial malformation that occur simultaneously with physical development of a fetus at the early pregnancy period. Cleft literally is defined as opening or a slit. Within medical context, cleft refers to a condition where tissue at the lip or palatal area fails to fuse together to cause an opening (fistula) or direct contact between nasal and oral cavity. Even though cleft can also affect other areas, the most common reported malformation of the head is CL/P (Chetpakdeechit, 2010).

2.7.1 Epidemiology of Clefting

CL/P is reported to be the common birth defect around the world (Diwana et al., 2019). In fact, 80% of facial deformity is constituted by CL/P alone (Epple et al., 2005).

The incidence of CL/P has been reported to generally be one in every 700 live births (Hlongwa et al., 2019). Certain parts of the world have shown or reported higher rates than the other areas. From available database, Asian and Latin Americans have the highest birth prevalence as often as one in every 500 live births (Shah, Mirani & Sahito, 2018) while selected parts in the Europe especially Southern Europe are found to be lower in rates. However, the number may not represent real situation due to several factors such as data collection techniques in the country and challenges in comparing global data due to inclusion or exclusion criteria and sample sources (Mossey, Little, Munger, Dixon & Shaw, 2009).

In Malaysia, an increased number of cleft cases has been observed when in 1990, Boo and Arshad reported the rate of occurrence to be 1.24/1000 live births. But the number has escalated to 2/1000 in 2005 (Normastura et al., 2008; The Star, 2011). This number is in agreement with statistics compiled by medical organisations such as University of Malaya Medical Centre and BabyCenter Malaysia Medical Advisory Board (2012). Recent statistics has shown the number to be still within the same range (Abumustafa, Alkhen & Tolarova, 2019). Across races, Malay has been affected the most than Chinese and Indian with the percentage of overall occurrence is close to 90% (Shah et al., 2018).

2.7.2 Types of Clefting

Tessier (1976) offers anatomical classification to highlight the wide spectrum of different clefts. The classification system is shown in Figure 2.3. Tessier (ibid.) in his classification has numbered the positions of different cleavages from 0 to 30. The first

image in Figure 2.3 shows classifications on soft tissue; the second image on the other hand shows bone clefts. The drawing identified different types of clefts which are:

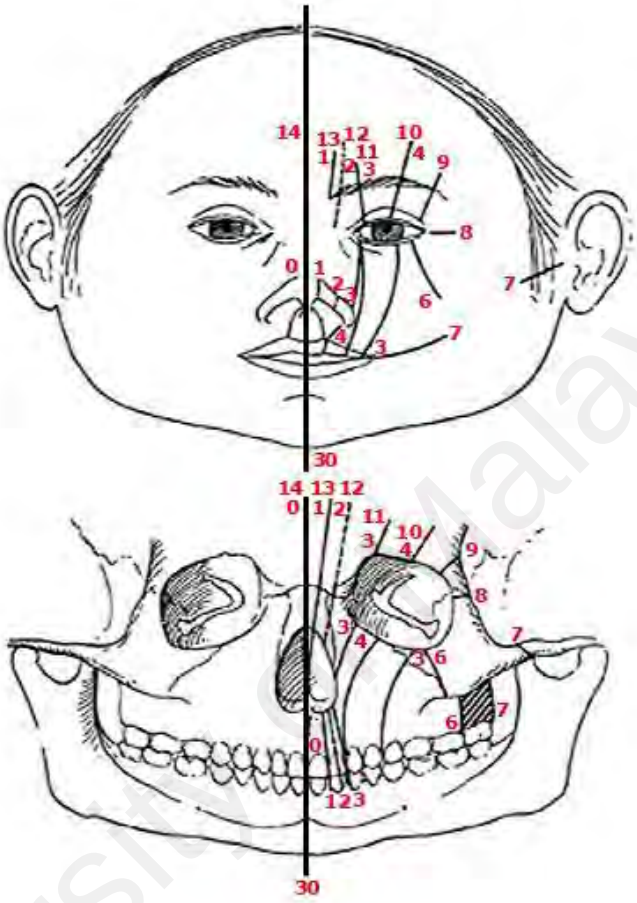


Figure 2.3: Anatomical Classification of Clefts (Tessier, 1976)

a) Orofacial clefts (0 to 7, 30)

b) Craniofacial clefts (8 to 14)

c) Rare clefts (15 to 29) – not shown in image

Tessier's classification system has been widely referred in diagnosing patients born with facial anomalies. Due to commonly found type of clefts compared to other types, this thesis focuses on CL/P.

CL/P can either be classified as unilateral cleft (affecting one side) or bilateral (affecting both sides) and syndromic cleft where it occurs with other diseases or non-syndromic clefts. Figure 2.4 represents the image of its occurrence in selected forms.

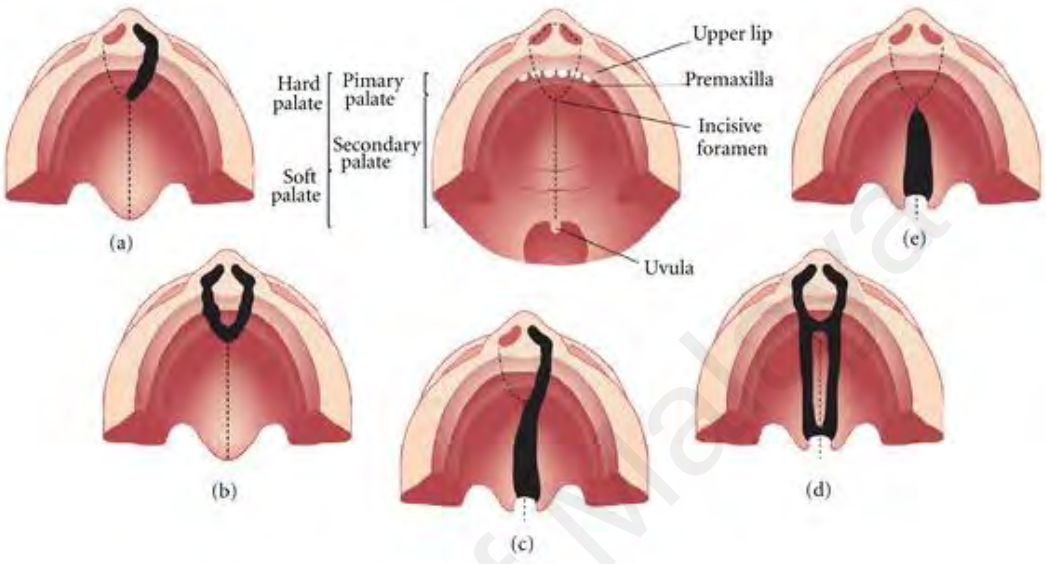


Figure 2.4: Types of CL/P (Brito, Meira, Kobayashi & Passos-Bueno, 2012)

Image (a) shows the condition when cleft affects the lip with involvement of alveolar in unilateral form while bilateral form of CL is shown in image (b). Image (c) on the other hand illustrates unilateral CLP while bilateral CLP is represented in image (d). Finally, image (e) describes the condition of CP only.

2.7.3 Etiology of Clefting

There is still little information made available on the etiology and the life situations for individual born with cleft (Chetpakdeechit, 2010). In majority of cleft patients, definite causes cannot be determined. Therefore, what causes cleft remain unclear as these conditions cannot be prevented (Mossey et al., 2009). However, many studies have identified two main factors that contribute to the development of cleft during mother's early pregnancy. The two factors are genetic factor and environmental factor.

Unborn babies are at greater risk to developing cleft at various types if the family consists of cleft-affected individual. In addition, exposure to chemicals during pregnancy may also result in similar problem to developing fetus. Scientists also believe that the combination of both factors can create greater chance to the development of cleft (Chiquet, 2011). Another potential factor to cleft is medication where certain types of medication consumed by pregnant mother that are commonly used in treating cancer, arthritis and psoriasis may cause cleft to develop (Mossey et al., 2009). Smoking during the month before pregnancy or the first month of pregnancy has also been identified to cause cleft (Raut et al., 2019).

2.7.4 Difficulties Associated to CL/P

The presence of CL/P in an individual can bring various difficulties. Cleft-affected individuals may encounter many problems from births up to adolescents. In fact, cleft has a life-long impact (De Sousa et al., 2009). Difficulties associated to CL/P can be discussed from several aspects; difficulties cause by physical deformities, difficulties cause by perception and difficulties associated to quality of life. Maier (2009) classified the difficulties into two; primary and secondary. Primary difficulties relate to the physical deformity that can influence many aspects of living while secondary difficulties refer to problems that cannot be medically treated.

First problem that any child with CL/P would have is feeding issue. Physical deformity can trigger feeding problems especially for parents who are not aware on proper techniques of feeding. Cleft babies especially cases that involve palate have inadequate ability to suck (Chetpakdeechit, 2010). This is due to the open contact between oral and nasal cavity. Because of this, babies may experience lack of nutrition and in some cases, died of malnutrition (Ashby, 2011). In addition, it is reported that the feeding session is

significantly longer and this can make the mother and baby to easily become fatigue (Goswami, Jangra & Bhushan, 2016).

The presence of cleft can also lead to hearing problem. Hearing loss is in fact common but often it is being ignored (Sharma, 2009). This is because of high attention being directed to the physical deformity of facial growth. Cleft-affected children are easily subjected to ear infection (Flynn et al., 2009). Hearing issue may lead to problems such as otitis media effusion, a condition where there is fluid in middle ear or even hearing loss (Gani, Kinshuck & Sharma, 2012). In fact, otitis media effusion is more common to affect cleft children than the non-cleft children (Handzic, 2018). Sharma and Nanda (2009) showed that 97% of children with various types of cleft experiences otitis media effusion in less than 24 months of age.

Another most common reported problem associated to cleft is speech problem. CL/P at various degree of severity can affect the children's speech outcomes (Chetpakdeechit, 2010). Speech is affected when problems in constructing a soft palate long enough to prevent the air flow passing from the pharyngeal up to the nose is observed. Length of soft palate together with velopharyngeal function plays huge role in successful speech production (Witzel, 1995). Havstam (2010) has characterised speech disorder of cleft children into three categories.

First is audible nasal air escape which usually is heard on high-pressure consonants[2] such as /p/, /t/, /k/, /b/ and /d/. Second, deviant resonance or hypernasality where the amount of air through nose is extreme thus causing their speech outcomes to be nasal. Finally, weakening of the high-pressure consonant due to inability to build up sufficient intra-oral pressure is evident. In addition, few studies such as Lee, Law and Gibbon

[2] Pressure consonants are sounds that need the palate to close to the back of throat which may cause difficulty for children with cleft affecting the palate.

(2009) and Koehn and Moller (2000) reported that speech sounds requiring intra-oral pressure (e.g. /k/ and /d/) are mostly affected while nasal consonants /m/, /n/ and /ŋ/ and semivowels /w/ and /j/ are the least affected sounds.

Other sounds such as /p/, /b/, /t/, /d/, /s/ and /z/ are also easily disturbed during speech production (Nagarajan, Savitha & Subramaniam, 2009). Zurahani (2000) identified stops, fricatives and affricates as the common distorted consonants in the speech of pre-school bilingual Malay-English cleft children. To correct speech production, speech surgery is performed following the rule of 10s where the baby must at least weighs 10 pounds, 10 weeks of age or have a hemoglobin of ≥10mg in order to survive surgery and anesthesia (Hussein et al, 2012). After surgery, speech training is required and many young adults show positive development toward acquiring normal speech.

With early speech problems, children are also expected to experience language delay. In many studies, children are often observed to have deficits in expressive vocabulary and delays in syntax. This is in fact true before the palate was repaired and after it was repaired, almost 30% were still affected (Kuehn & Moller, 2000). However, this area of investigation is often being left out due to emphasis on clinically-orient problems such as physical adjustment and speech outcomes (Hardin-Jones & Chapman, 2011).

Broen et al. (1998) examined language skills of 28 children with CLP at three-month interval from 9 months old to 30 months old. The study used parental report, The Bayley Scales of Infant Development (Bayley, 1969) and The Minnesota Child Development Inventory (Ireton & Thwing, 1972) as data collection instruments. Even though this study did not show any significant delays in language, the usage of vocabulary was found to be poorer among cleft children than the normal developing children.

Morris and Ozanne (2003) further investigated the language skills of children with cleft. In their study, language, phonetic and phonological skills of children at the age of 3 years were evaluated. The children were compared to typical developing children (non-cleft group) for any differences. Findings showed children with cleft continued to exhibit poor expressive language skills as contrast to children with normal language development. Differences were also found on their phonetic inventories, production of correct consonants and use of phonological processes.

Overall, research that investigates language development in children with cleft has identified them as having delays in vocabulary growth. With poor vocabulary growth, it certainly leads to delays in expressive language proficiency. But, due to studies that concentrate on clinical setting, Kuehn and Moller (2000) suggested future studies to focus on environmental milieu that can enhance the positive language development.

Children with cleft are further reported to experience difficulties in their social and psychosocial functioning. This problem relates to their speech production because failure to develop sufficient speech will increase the risk for difficulties in social, emotion and behaviour (De Sousa, Devare & Ghanshani, 2010). Studies like Havstam (2010) and Kapp-Simon (2006) reported the children to demonstrate emotional maladjustment such as bodily tension and reduced creativity. In Havstam (2010), female cleft children for example have shown more concern with their physical appearance while male cleft children showed apprehension on their speech production.

Patel and Ross (2003) investigated the views and perceptions of a group of South African adults with repaired cleft regarding several aspects of life such as communication, education, family, social life and emotional issue. A total of 20 respondents were interviewed individually and the study revealed that participants were satisfied with their abilities to participate in various communicative situations, education and they perceived

their speech to be intelligible as well. They also agreed that speech therapy had helped not only their speech but also improved other qualities of life. However, most of them also showed great concern on being negatively perceived by surrounding people on their cleft i.e. scar or speech quality. This is evident in the negative adjectives that they used to describe their personalities; only few of them described themselves as confident and sociable person.

Chetpakdeechit, Hallberg, Hagberg and Mohlin (2009) conducted a similar study where they investigated perceptions of young adults with clefts on social life. 12 participants participated in an in-depth interview protocol. Consequently, this study revealed seven important criteria that reflected their opinions; hoping to be like other people, being treated differently from others, lack of recognition, low self-esteem and receiving from significant others. It is also reported that the recognition from the significant others will increase their self-esteem and ability to cope with social life.

Havstam, Laakso, Lohmander and Ringsberg (2011) attained descriptions on the experience of growing up with cleft and how it was dealt with. Interviews with 13 young adults born with CP with or without CL were tape-recorded and transcribed. It was later analysed using a qualitative approach based on Grounded Theory methodology. The analysis resulted in three main categories; forming an idea of one's speech, learning about one's communication and taking responsibility for communication. The categories emerged as parallel processes in the understanding and active handling of communicative interaction. The participants described the processes that had enabled them to take charge of their communication. Seeing things from the listener's perspective and being open about the cleft and the speech disorder emerged as important parts of taking active responsibility for communication as well as accepting their present speech and communication. This study concluded with the recommendation that communicative

participation should be thoroughly assessed in order to understand the individual needs of those born with cleft.

Children with cleft are also exposed to teasing and bullying that further reduced their self-esteem. In Hunt, Burden, Hepper, Stevenson and Johnston (2006), 160 cleft participants were assessed using semi-structured interview in order to understand their experience with teasing or bullying and satisfaction with speech. The outcomes were compared to data from non-cleft group (N=113) and results indicated that teasing or bullying to be greater among cleft participants. This study also described that cleft children and young adults experienced more symptoms of depression and they were unhappy with facial appearances. Finally, cleft participants were less satisfied with their speech outcome than the non-cleft group. This study has stated teasing and speech outcome were the predictors for poorer psychosocial functioning and they should be among the aspects of speech therapy.

With issues in speech outcome and psychosocial functioning, children with cleft experience significant difficulties in academic achievement (Lowe, 2002). In a study that involved Swedish learners with cleft, the participants were found to perform poorer in English and Mathematics. This is especially observed among girl learners. Their CGPAs were also low and many of them have been reported to not graduating from high school (Persson, Becker, Conrad & Svensson, 2017). To support this, Collet et al. (2010) showed that children with cleft performed poorly on measures of basic reading, phonological memory and reading fluency when being compared to non-cleft children that matched demographic profile. This study concluded cleft children as less adept reader that can greatly influence their later academic performance.

In summary, cleft can give impact beyond physical appearance and speech outcomes. Previous discussion has shown how cleft affects the children's health (nutrition),

language development, psychosocial functioning and academic achievement. All of these can significantly influence their quality of life. Figure 2.5 summarises the key aspects of life that are affected by cleft as reported in literature.

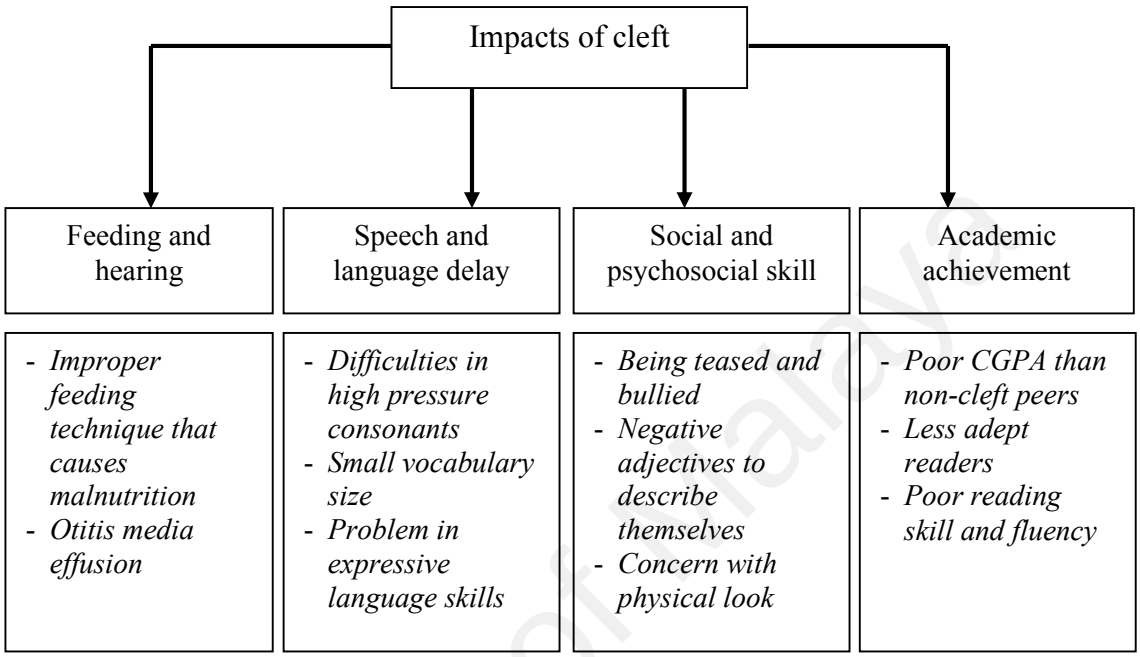


Figure 2.5: Impacts of Cleft

Given the impact of cleft on various aspects of life, management of cleft patients usually involves a team of professional from various work disciplines. This team works together to provide a comprehensive treatment plan that usually is complex and can extend until late adulthood (Zreaqat, Hassan & Hanoun, 2017). Generally, this team constitutes plastic surgeon, orthodontist, speech language therapist and audiologist. In addition, other professionals may also be involved such as geneticist, social worker, psychologist and pediatrician. Depending on severity level, the number of visit can range from two to three per year to one in every two or three years (Napoli & Vallino, 2011).

2.8 Interactional Skills of Individuals with CL/P

Discussion on language problems in CL/P children is often directed to the aspect of pronunciation or within the area of phonetics and phonology. This is not surprising due to physical evidence of cleft that affects the primary structure of speech organs which are the upper lip and palate (Hardin-Jones & Chapman, 2011). However, the presence of cleft can also bring functional implications in social interaction particularly affecting children's ability to communicate effectively (Beluci & Genaro, 2016).

2.8.1 Current Database on Interactional Skills of CL/P Individuals

Interactional skills or in a broader linguistic term of pragmatics is the least area of investigation to be paid attention within cleft population (Havstam & Lohmander, 2011; Frederickson et al., 2006). Even though the number of publication on this aspect of investigation is small, there is indeed an increase interest focusing on the social use of language among CL/P children such as lexical and pragmatic functioning (McGahey, 2004).

One of the early studies is Chapman, Graham, Gooch & Visconti (1998). In this study, conversational skills of 10 preschool and 10 school-age children with CLP were compared to noncleft children that matched in their age group. Their interactions with adults were videotaped and analysed using standardised test of pragmatic skills. Despite not producing significant differences between groups, individual comparison showed CLP children to have lesser assertive profiles of conversational participation for about 50% (preschooler) and 20% (school-age group).

Frederickson et al. (2006) replicated and extended Chapman's et al. (1998) in the number of children with CLP. 34 children with CLP at the age of 3 to 4 years old were examined during their everyday interaction with mothers at home. The interactions were

recorded, orthographically transcribed and coded for assertive level, type of conversational act and discourse level. Results generally showed CLP children to be lacking in assertive utterances (e.g. we go to grandma's today), were less likely to respond adequately to comments by their mothers and were involved in topic maintaining discourse more than other discourse level (topic extension or topic initiation). In addition, individual comparison between CLP children and non-cleft children showed 35% of CLP children exhibited conversational profiles that are characterised by either low assertiveness or low responsiveness. This further classified them to be a passive speaker.

In a higher age group, Slifer et al. (2004) conducted a comparative study that examined social interaction skills of a group of children and adolescent that aged 8 to 15 years with CLP to non-cleft group. They were recorded while participating in a stimulated interaction with peer confederate. Results showed significant differences between the two groups. In particular, the CLP group failed to respond to the peer's questions, had limited number of questions being asked and scored lower Rho correlation values in offering to assist or share than the non-cleft group. In addition, parental report that was obtained indicated the CLP group's dissatisfaction with facial appearance. Parents also reported the CLP children to be less competent in social skills.

Cocquyt, Zink, Mommaerts, Nadjmi & Dewart (2012) also addressed pragmatic skills in their study when they measured social interaction skills in children from specific target groups i.e. children with Down syndrome, Autism and CLP. This study used Cocquyt & Zink (2010)'s EPVs: Lists for Evaluation of Pragmatic Skills as the screening instrument. Specifically for cleft group, results showed their difficulties in starting up and participating in conversation than non-cleft children.

Another aspect that has received quite an attention is the non-verbal behaviour of cleft children while they participate in interaction. The use of necessary non-verbal behaviour

can express information that might not be able to do it through words (Segal et al., 2013). However, cleft children are found to exhibit limitation in non-verbal behaviour (Long & Dalston, 1982). Especially facial expressions, this limitation might be visible due to congenital differences that the children have (Slifer et al., 2003).

In a study by Krueckeberg et al. (1993), failure to employ appropriate gestural communication has been identified as primary source of social isolation among cleft children in school. When being compared to non-cleft peers that matched their age group, this study showed cleft children to have the tendency of being less friendly and perform poorly in facial encoding task. This study predicted the connection between poor social functioning and inaccurate facial expressions as predictors for them to be negatively perceived by peers that consequently leads to social isolation.

Adachi et al. (2003) examined non-verbal behaviour of adults with repaired cleft during intrapersonal communication. 20 women between the age of 21 and 30 years old with history of CLP were recruited as participants. They were videotaped during interviews and their gestures and facial expressions were later analysed using a computer-based kinematic measurement system. Results that were obtained indicated the problem in non-behaviour among cleft-affected individual. Specifically, the women showed limitation in head movement and significantly lower smile frequency than non-cleft participants. The cleft participants also demonstrated less coordinated movement between the head and hand while interacting.

Slifer et al. (2006) studied the facial behaviour of school-aged children with cleft. Two groups of children (with and without cleft) were placed in a stimulated social interaction with the help of peer confederate. In this activity, participants were asked to listen to several emotional stories and pose specific facial expressions. Their actions were videotaped and facial behaviours were coded through suitable developed coding system.

Results revealed the cleft children to display more facial behaviours that might not be appropriate to the context of stories such as eye contact, tongue out and mimicry than the non-cleft children. This further highlights the differences between cleft and non-cleft children in the aspect of non-verbal behaviour.

2.8.2 Implications from Previous Studies

Implications from previous studies can be discussed from several aspects. First is the inclusion of cleft-affected participants, second is the aspect of investigation and third is the methodological approach that has been taken by the relevant studies.

Generally, most of previous studies have shown the limitations of cleft-affected individuals in their interactional skills. Majority of the studies that have been discussed in this work obtained their interactional data from school-aged children or children who have exceeded language development process. Some of the studies are Slifer et al. (2004), Frederickson et al. (2006) and Cocquyt et al. (2012). While Slifer et al. (2006) also includes young adolescent with history of cleft, Adachi et al. (2003) is the only study that acquires data from adult.

Even though all of the studies focus on how such individuals participate in interaction, their aspect of investigation is found to be within two main aspects. First, several studies like Chapman et al. (1998), Frederickson et al. (2006) and Cocquyt et al. (2012) focused on conversational skills that are verbal such as turn-taking, topic initiation or maintenance and giving responses, another group of study has the focus on non-verbal behaviour that includes body movement, head movement, eye gaze and smile frequency (e.g. Adachi et al., 2003 and Slifer et al., 2006).

Finally, most studies have employed assessment checklist and evaluation list as their primary data collection technique. This can be seen in studies like Scherer et al. (2013),

Ha et al. (2013) and Cocquyt et al. (2012). Participants were placed in either a stimulated environment or controlled interaction as part of data collection process. In addition, several studies such as Krueckeberg et al. (1993) and Reed et al. (1999) have employed interview with parents to get data on problems in interaction.

2.9 Summary

This chapter has reviewed literature on parent-child interaction, troubles that are possible to occur during interaction process and other-initiated repair as one possible mechanism to restore mutual understanding. In addition, this chapter has introduced the physical deformity of cleft lip and/or palate and how it can affect the various aspects of life, specifically language.

Given the understanding on such, the present work attempts to fill in the gap on how cleft-affected individuals participate in repair activity that requires them to be functioning in linguistic, cognitive and social skills. Despite several studies that have highlighted the limitations that these individuals can face within these areas, studies that address this issue is scarce. In addition, many of the available studies that investigate pragmatic functioning or interactional skills employ assessment checklist and stimulated interaction to generate results. This poses limitation to the data source that may not reflect the real-life interaction process with them. The use of qualitative approach or specifically CA which is not common in studies involving cleft population can also help researcher to further explain on what is actually happening when they interact.

The next chapter introduces the methodological approach that has been adopted by this study; specifically pertinent information on how this study is conducted such as participants, procedures of data collection and data analysis techniques are provided.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter provides discussion on methodological aspects of the study. It first begins by introducing the theoretical frameworks that have been adopted to guide analytical process. Next, information on research site, research participants, research ethics and research instrument are explained. This is followed by sections that give information on transcription process, research design, procedure for data collection and data analysis technique. The chapter ends with information on reliability and validity.

3.2 Theoretical Frameworks

This study incorporated five theoretical frameworks that serve as primary guides in data analysis. The theoretical frameworks are classified according to three research questions that have been formulated earlier; namely (i) sources of interactional breakdowns, (ii) repair initiation strategy and (iii) repair giving strategy. Table 3.1 shows the mapping of each framework to the research questions. Detail explanation on each framework is given in the following sub-sections.

Table 3.1: Mapping of Theoretical Framework

Research Questions	Theoretical Frameworks
What are the reasons for interactional troubles to occur between parents and children with repaired cleft in their everyday interaction?	Schegloff, Jefferson and Sack (SJS) (1977) Philip's Sources of Communication Breakdown (2008)
How do parents and children initiate repair from each other following interactional breakdowns that have occurred?	Schegloff, Jefferson and Sack (SJS) (1977) Philip's Clarification Request (2008)
How do parents and children give repair following initiation turn?	Brady and Halle (2002) Philip's Repair Response (2008)

3.2.1 Schegloff, Jefferson and Sacks (1977) and Philip's Sources of Communication Breakdown (2008)

The first question that this study aims to answer concerns reasons for troubles to occur in everyday interaction between parents and their children with surgically repaired CL/P that consequently cause interactional breakdowns. Analysis on such incorporated coding schemes on types of breakdowns that are derived from theoretical understanding in models by Schegloff et al. (1977) and Philip's Sources of Communication Breakdown (2008).

Schegloff et al. (1977) generally characterised interactional breakdowns to problems in speaking, hearing or understanding. Speaking problems refer to difficulties in organising or structuring message, difficulties in grammatical aspect i.e. syntax, word selection and articulation (Fox Tree & Clark, 1997). Problems in hearing, on the other hand, are resulted from factors such as background noise that overlaps with speech, impairment in hearing as to be seen in individual with hearing loss or speaking in different native language that consequently will make message unintelligible to listeners (Smiljanić & Bradlow, 2009). Finally, problems in understanding deal with cognitive difficulties such as speakers having insufficient background knowledge on topic of interaction, inability to read body language or summarise what is being said.

In a more elaborate reasons for interactional breakdowns, Philip (2008) offered a compiled sources to identify types of troubles. The list of sources has its origin from Yont, Hewitt and Miccio's (2000) *Breakdown Coding System* (BCS) which is an instrument to measure conversational breakdowns in children and is integrated with findings from Philip and Hewitt (2006). The compiled system lists nine sources for interactional breakdowns to occur in everyday interaction. The nine sources become the primary guide

for the present study to identify the types of interactional breakdowns. Table 3.2 provides the sources together with their elaboration.

Table 3.2: Sources of Communication Breakdown (Philip, 2008)

No.	Sources	Explanation
1.	Content rejection	The accuracy of information is questioned by listener (Yont et al., 2000)
2.	Ambiguous referents	The use of vague or unclear expression by speaker to deliver information (Philip & Hewitt, 2006)
3.	Inadequate information	Message does not have sufficient information to be understood by listener (Philip & Hewitt, 2006)
4.	Irrelevant information	Information is not related to the topic of interaction (Philip & Hewitt, 2006)
5.	Inaudibility	Speaker speaks softly (Yont et al., 2000) or speech is overlapped thus listener could not clearly hear what is being said (Philip & Hewitt, 2006)
6.	Unintelligible segments	There is incomprehensible part in the message (Philip & Hewitt, 2006)
7.	Phonological errors	Speech sound errors such as omission, addition, substitution etc. (Yont et al., 2000)
8.	Idiosyncratic	Speaker uses odd words or phrases that confuse listeners (Philip & Hewitt, 2006)
9.	Non-verbal	Gesture that is not understood by listener (Yont et al., 2000)

In this study, analysis on types of interactional breakdowns follows sources given by Philip's Sources of Communication Breakdown (2008) for first, its specification in identifying types of trouble sources and second, the consideration for non-verbal typology which is not available in Schegloff et al. (1977). Following this close analysis, classification based on Schegloff et al. (1977) is utilised to have a wider view on sources

for interactional troubles that prompt for OIR to occur in interaction between parents and their children with repaired CL/P.

3.2.2 Schegloff, Jefferson and Sacks (1977) and Philip's Clarification Request (2008)

To examine strategies for parents and children to initiate repair following breakdowns that occur in the previous turn of speaking, this study incorporates two models which are Schegloff et al. (1977) that suggests five repair initiation strategies and Philip's Clarification Request (2008) that identifies seven strategies.

Schegloff et al. (1977) in their seminal paper on repair put forward five strategies that are common to be employed by American English speakers when they initiate repair. The five strategies are the use of open-class repair initiators such as *huh* or *ha* in question form, question words such as what or when, repeating trouble source or part of it with a question word, repeating trouble source or part of it without question word and offering candidate understanding as in "you mean" format.

On the other hand, Philip's Clarification Request (2008) provides a compilation of repair initiation strategies from existing literature. Table 3.3 lists the strategies and explanation on what they mean. In this model, items 1 until 6 in Table 3.3 are based on findings as reported in Garvey (1977), Gallagher (1981), Brinton and Fujiki (1989) and Yont et al. (2000). Item 7 on the other hand is an addition to the list by Philip and Hewitt (2006) based on their pilot study that investigates how primary school-age children with autism initiate repair from parents in their daily interactions.

Table 3.3: Philip's Clarification Request (2008)

No.	Sources	Explanation
1.	Non-specific	The use of interrogative words such as "*huh?*"
2.	Specific request for repetition	Repetition of trouble source with a part of it is replaced with question word such as what.
3.	Specific request for specification	Listener indicates specific part to be repaired
4.	Request for confirmation	Repetition with rising intonation, reduction or elaboration
5.	Direct request	Request for exact definition or explanation such as "what does that mean?"
6.	Relevance request	Listener questions relevance of message
7.	Cloze request	Request that gives two choices to speaker of trouble source

Philip's Clarification Request (2008) becomes the primary guide for this study to analyse repair initiation strategy by parents and children. The adoption is primarily due to an up-to-date findings concerning initiation strategy offered by the system and it also focuses on adult-child interaction which this study shares similarity with. In addition, several categories in Philip's Clarification Request (2008) are found to be similar in explanation to what Schegloff et al. (1977) provided. Thus, several categories can be integrated to assist this study in performing its coding.

First, Schegloff et al.'s (1977) open-class repair initiator is similar to non-specific request listed in Philip's (2008). Both categories refer to strategies of using interjection words such as *huh* to function as repair initiator (Dingemanse, Torreira and Enfield, 2013). Next, the use of question words and repeating trouble source with question words

complement Philip's specific request for repetition while Schegloff et al.'s repeating trouble source without question word is considered to be similar to specific request for specification and request for confirmation in Philip's model. Finally, offering candidate understanding is similar to Philip's direct request.

3.2.3 Brady and Halle (2002) and Philip's Repair Response (2008)

The final research objective concerns how parents and children repair following initiation made in previous interactional turn. To accomplish this, analysis follows theoretical explanation from Brady and Halle (2002) and Philip's Repair Response (2008).

Brady and Halle (2002) classified strategies of repair to interactional troubles into four namely no response, repetition, recast and addition. Repair strategy is classified as no response when speaker ignores initiation by co-participant. This results in discontinuation of interaction or extending sequence of breakdowns. Repetition is defined when speaker repeats trouble source with no or little modification. Recast on the other hand is revision made by speakers to the trouble source and finally, addition is defined when speaker adds verbal or gestural elements to trouble source.

On the other hand, Philip's Repair Response (2008) provides 12 repair strategies that are gathered from existing literature. Table 3.4 lists the strategies together with their explanation.

Table 3.4: Philip's Repair Response (2008)

No.	Sources	Explanation
1.	Repetition	Speaker repeats all or part of trouble source

Table 3.4, continued

No.	Sources	Explanation
2.	Revision	Speaker uses alternate labels without adding information
3.	Addition	Speaker adds information to trouble source
4.	Cue	Speaker provides background information to trouble source i.e. talking about repairing
5.	Keyword	Speaker emphasises an important word
6.	Explanation	Speaker explains specific terms in trouble source
7.	Inappropriate	Speaker provides unrelated response or no response is recorded
8.	Cloze response	Speaker chooses one of options given in initiation turn
9.	Close-ended response	Speaker uses affirmation
10.	Unintelligible	Repair is recorded as UNI should there be any difficulties such as background noise or poor speech
11.	Interrupted	Repair is recorded as INT should there be any interruption while speaker responds to initiation
12.	Related response	Speaker's responses are related but do not fix breakdowns

In model presented by Philip, item 1 to item 4 are gathered from Gallagher (1977) and Brinton et al. (1986). Brinton et al. (1986) also put forward item 6. Items 3, 5, and 6 gathered from Most (2002) while item 7 is obtained from Most (2002), Gallagher (1977) and Brinton et al. (1986). Item 8 to item 12 are proposed by Philip and Hewitt (2006) thus serve as addition to existing literature.

Addition by Philip and Hewitt (2006) also makes distinction of Philip's model to four strategies given in Brady and Halle (2002). It is clearly shown the Brady and Halle's (2002) four strategies complement several strategies in Philip's model.

3.3 Research Site

This study was conducted in Klang Valley which is located in the central west of Malaysian peninsular. Klang Valley is a metropolitan area that comprises several cities within the federal territory of Kuala Lumpur and the state of Selangor (see Figure 3.1).

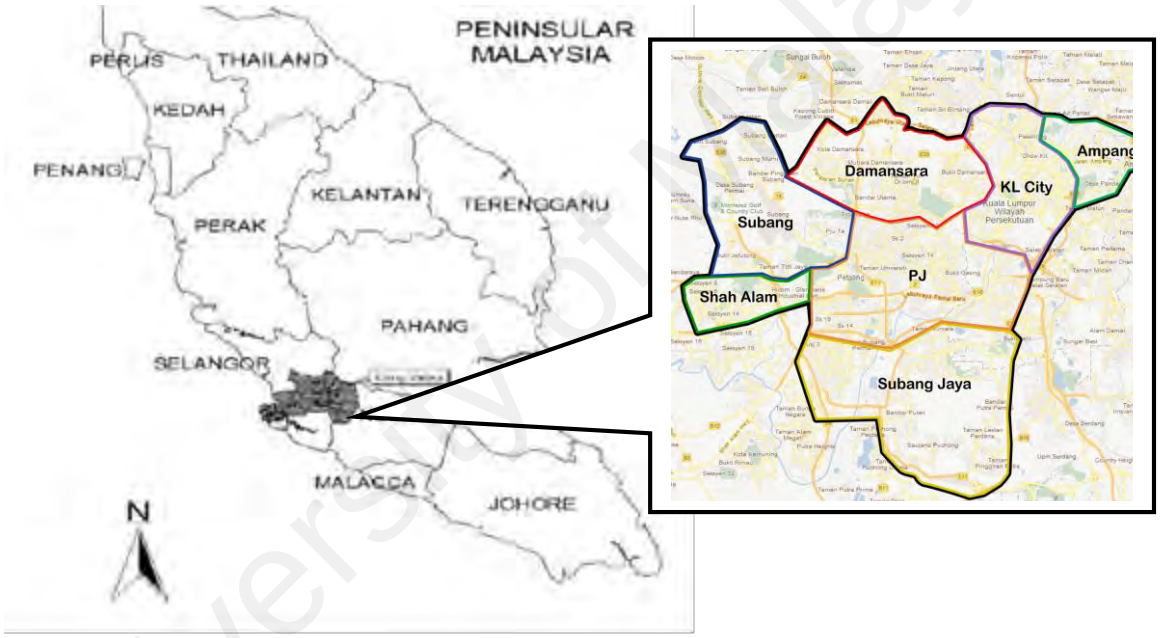


Figure 3.1: Location of Klang Valley (Research Site)

This particular area was chosen as the study's research site for several reasons. First, the area provides researcher with easy understanding on the dialect of Malay language being used in daily interaction. Malay language or formally known as Bahasa Malaysia is the country's official language. The language is spoken in two versions; Standard Malay and Colloquial Malay. While Standard Malay is more common in formal setting such as in news broadcasting, Colloquial Malay is widely used in daily interaction that is

more relax and less formal in context. Between these two versions, there are notable differences in pronunciation, morphological and syntactic properties (Koh, 1990).

Malaysian peninsular is reported to have nine dialects (Asmah Omar, 1985). Among the dialects are dialects of Kedah (northern region), Kelantanese dialect (east-coast) and dialect that is spoken in the central west. As contrast to Kedah or Kelantanese dialects, the central west dialect is relatively simple to understand and poses close similarity to Standard Malay. One particular characteristic of this dialect is the use of schwa /ə/ to replace end-vowel in words ending with sound /a/. For example, *saya* (I) is common to be pronounced as /sayə/ instead of /saya/. Other than this feature, central west dialect has vocabularies that are common and can be easily understood by many including speakers of other dialects. This may not be the case for other dialects that contain specific vocabularies and more elaborate phonological forms.

In addition for easy understanding on the dialect of Malay language to justify the choice of research site, Klang Valley was also selected for its strategic location in the country. Klang Valley is situated in the central west of Malaysian peninsular (Figure 3.1). The area has grown to become the main drive of country's economic development (The Star, 2013) and centre for business, education and entertainment industry (Lee, 2011). With many big cities including Kuala Lumpur city are within its boundary, this allows the areas to have several treatment facilities for cleft especially specialist hospitals and speech clinics that may not be available in other parts of the country. To add, the only non-profit organisation (NGO) for cleft-affected individual in the country is located in Klang Valley. This criterion is necessary because the study includes participants with history of CL/P. Having research site that hosts the relevant facilities are important so it can provide this research with access to potential participants.

3.4 Participants

This study includes parents and their children with repaired cleft as its participants. The selection of participants is guided by criterion-based sampling technique (Patton, 1990; Palys, 2008) that helped this study to set a number of inclusion requirements.

First, this study requires participants to speak Malay as their first language and daily language of use. This is important because the study investigates how Malay speakers participate in OIR practice; thus having participants who speak other languages does not confirm to the scope of research. In addition, the use of Malay language is only a requirement for inclusion as it provides understanding to researcher that has to record, transcribe and analyse the interactional data. This may be difficult should participants speak other main languages in Malaysia such as Mandarin and Tamil.

Secondly, participating children in this study must be children with surgically repaired cleft. They must be within the range of age for children which is not more than 18 years old as stated in Article 1 of The United Nations Convention on the Rights of the Child (1989). The children must also be able to perform linguistically at both expressive and receptive language and for this, the children should be more than five years old (Bowen, 1998). Thus, this study sets the age requirement for children to be at primary school age. In addition, the children must have undergone repair surgery for at least once. Children who are in the period of surgical procedure for cleft or not having their cleft repaired are not considered.

The participants are identified at two main cleft centres in Klang Valley. One of the centres is cleft clinic attached to a university hospital. The clinic provides range of treatment such as plastic surgery, dental care, hearing assessment and speech evaluation. Another centre is a non-profit organisation that focuses on the well-being of cleft community in Malaysia. This NGO considers itself as a support group for families with

cleft-affected member and organises activities such as hospital visits, counselling, talks and seminars. In certain time, they organise family day for families with cleft children as one of their activities.

Following this, three families were successfully recruited through the aforementioned centres. Initial recruitment was done through discussion with relevant administrators at the centres. The administrators after being explained on nature of the study will propose a number of potential participants for researcher to contact and decide.

Table 3.5 presents the general information related to their recruitment and the following sub-sections give further detail on their demographic profiles. Pseudonyms are used to identify the participants.

Table 3.5: Participants

Information	**Family 1: Lisa**	**Family 2: Aiman**	**Family 3: Aniq**
Participating member	Mother, Lisa (repaired cleft children) and younger brother	Father, mother and Aiman (repaired cleft children)	Father, mother, Aniq (repaired cleft children) and elder brother
Recruitment through	NGO	Clinic	NGO

Table 3.5 shows three families have been selected to participate in this study. Two of the families are recruited through NGO while one family is identified from the cleft clinic. The families are assigned according to the children's pseudonym; Family 1 is Lisa, family 2 is Aiman and family 3 is Aniq.

3.4.1 Family 1: Lisa and Mother

The first family comprises of a mother, her child named Lisa, who was born with unilateral CL, and Lisa's younger brother who appeared occasionally in the recordings.

The 7-year old Lisa was recruited through NGO where she and her parents participated in as members. Lisa's cleft, which affected her mid-left side of the upper lip, was repaired when she was 7-month old. The corrective surgery was the only cleft-related treatment she has received. Due to the apparent scar, the mother reported her to be subjected to questioning and minor teasing by her friends at school. Yet, the mother described Lisa to be an active young girl and excellent in her academic performance.

Lisa's father works as legal advisor for one conglomerate in Damansara while the mother is a full time housewife despite having law degree to herself. Both of them are in their early 40s at the time of recordings. The father does not participate in the study due to work commitment.

The family was recorded when Lisa was 7 and 8 years old for a total of four sessions. One recording took place at a restaurant, another recording was at a mosque while the remaining two recordings took place in her house without researcher being present. The two outdoor recordings were upon their family's request who would like to maintain their privacy. Recordings covered activities such as completing school works and Lisa's chit chatting with the mother with the presence of her younger brother. Most of the interactions are dyadic interactions with exception for several occasions within the interactions where they become multiparty interactions due to inclusion of her younger brother.

Table 3.6 presents the demographic profile for Lisa and her mother.

Table 3.6: Demographic Profile for Family 1 (Lisa)

Profile	**Child (Lisa)**	**Mother**
Recruitment age	7 years old	41 years old
Recording ages	7 & 8 years old	41 & 42 years old
Types of cleft	Unilateral CL	-
Repair surgery	Yes; once	-
Age of first surgery	7-month old	-

Table 3.6, continued

Speech therapy	No	-
Other cleft-related treatment	No	-
Occupation	Student	Housewife
Education	Primary school	LLB

3.4.2 Family 2: Aiman and Parents

The second family for this study consists of both parents and the one child named Aiman, who was born with bilateral CP. The family was recruited from the clinic during their scheduled visit for Aiman's dental treatment. Most of the family's interactions are multiparty interactions.

At the time of recruitment, Aiman was aged 9 years old. Aiman had undergone his only repair surgery when he was 10-month old. However, due to maturation, his mother reported a small fistula, which they plan to consult physician (at the time of meeting). Within speech treatment, Aiman had never received any sort of speech intervention due to lack of personnel at their assigned health centre. The mother reported Aiman to be generally participative during interactions within home compound especially with familiar individuals such as parents and siblings but has the tendency to be slightly quiet in school as reported by school teachers.

Aiman's father works as a technician while his mother is a primary school teacher at a state-governed school in Shah Alam. They were aged 43 years at the time of recordings.

All six recordings of the family's interactions took place when Aiman was 9 and 10 years old. The recordings covered many topics and the interactions were recorded mainly during family meal times and completing school works.

Table 3.7 presents the demographic profile for Aiman and his parents.

Table 3.7: Demographic Profile for Family 2 (Aiman)

Profile	Child (Aiman)	Father	Mother
Recruitment age	9 years old	43 years old	43 years old
Recording ages	9 & 10 years old	43 & 44 years old	43 & 44 years old
Types of cleft	Bilateral CP	-	-
Repair surgery	Yes; once	-	-
Age of first surgery	10-month old	-	-
Speech therapy	No	-	-
Other cleft-related treatment	Yes; dental alignment	-	-
Occupation	Student	Technician	Primary school teacher
Education	Primary school	Professional certificate	University's diploma in education

3.4.3 Family 3: Aniq and Parents

The third and final family was recruited through the NGO that is similar to Lisa's (family 1).

At the time of recruitment, Aniq was aged 11 years old. Within clinical profile, Aniq was born with unilateral CLP. He had undergone cleft repair surgeries several times before he reached 2 years old. In addition to repair surgeries, Aniq is also undergoing treatment for ear infection. Aniq had experience attending speech therapy when he was 7 years old. However, the therapy could not be prolonged due to increased financial commitments.

Aniq's mother reported him to be a less talkative individual and he has the tendency to be shy during the presence of any unfamiliar individuals. She also reported his speech to be unintelligible due to missing of selected sounds. This was evident during observation by researcher that has shown Aniq's speech to be unintelligible in words containing high pressure consonants such as /q/. Thus, when he first mentioned his name,

it sounded “Ani” rather than “Aniq” (his actual name contains sound /q/ but has to be modified for privacy).

Aniq was recorded while having conversations with his family members for a total of four sessions. The recordings took place when he was 11 and 12 years old. The recordings recorded his interactions while he and his family were having family time in their living room.

Table 3.8 presents the demographic profile of Aniq and his parents.

Table 3.8: Demographic Profile for Family 3 (Aniq)

Profile	**Child (Aniq)**	**Father**	**Mother**
Recruitment age	11 years old	49 years old	46 years old
Recording ages	11 & 12 years old	50 years old (one time only)	46 & 47 years old
Types of cleft	Unilateral CLP	-	-
Repair surgery	Yes; multiple	-	-
Age of first surgery	≤2-year old	-	-
Speech therapy	Yes	-	-
Other cleft-related treatment	Yes; ear infection	-	-
Occupation	Student	Policeman	Housewife
Education	Primary school	High school certificate	High school certificate

3.5 Research Ethics

Employment of children in this study was granted with permission by the cleft clinic and management of the cleft organisation. Once participants agreed to participate in the project, they were provided with information sheet (see Appendix A). This information sheet explains the nature of this study and includes researcher’s contact details. The sheet was prepared in both English and Malay language.

First meeting was held with each family to explain in detail on the study’s objectives and how data would be collected. The meeting also explained their rights throughout the

study and their participation was only confirmed when they signed an informed consent letter (see Appendix B).

Similar to the information sheet, the consent form was prepared in English and Malay language to ensure understanding of participants who are Malay. Each item in the consent form was explained by the researcher. Attentions were given on items that explained objectives of the study, data collection procedure, its duration, their confidentiality and right to withdraw whenever they want. Once they agreed and satisfied with answers to questions they have had, the forms were signed in two copies to be kept by both parties (the researcher and the family).

Another issue to consider is the anonymity of the participants. The participants were informed that their actual names will not be used in the study. Their name and other personal details will remain anonymous in this study and any other related publications. Hence, each primary participant was assigned with suitable pseudonym while a generic description such as "father", "mother" and "younger brother" was used to refer to their conversational partners. In addition, images that are used to discuss the findings are blurred so their real identity is not revealed to readers.

3.6 Research Instrument

The research instrument for this study is the interactional data that were obtained from everyday interaction between parents and their children with repaired cleft. Such data were collected through close yet informal field observation conducted at several stages over a period of close to 24 months. Specifically, this process includes a series of video recording of interactions that occur naturally between parents and their children with repaired cleft with inclusion of secondary participants such as other siblings.

Recordings of interaction took place at participants' homes except for family 1 (Lisa) that requested the sessions to be conducted at public places such as restaurant and mosque. The interactions were conducted through several home activities such as family meal time, family leisure time or completing school work. No specific tasks or topics for interaction were assigned to the participants as they were freely to interact on topics of their choice. This follows the principle of CA that strongly emphasises on naturalness of the data.

Recordings thus accumulated almost 7-hour (381.4 minutes) of interactional data for all participants and this becomes the primary data source for the study. Table 3.9 details the minutes of recording for each participating family.

Table 3.9: Total Minutes of Recordings for Participants

Family	**Session 1**	**Session 2**	**Session 3**	**Session 4**	**Session 5**	**Session 6**	**Total minute**
Family 1 (Lisa)	21	37	32	7	-	-	**97**
Family 2 (Aiman)	16	53	36	41	14	11	**176**
Family 3 (Aniq)	18	43	41	11	-	-	**108**
Total minute	**55**	**133**	**109**	**59**	**14**	**11**	**381**

3.7 Transcription of Interactional Data

The recorded interactions were later orthographically transcribed. The process is required for it provides researcher with static and easy format of data that can ease data analysis later (Liddicoat, 2007). This study specifically adopts transcription convention proposed by Gail Jefferson which is The Jefferson System of Transcription Notation (2004) (reader may refer to List of Symbols).

The Jefferson's system is the most common and widely used transcription system (Hutchby & Wooffitt, 2008). This system of transcription represents various features of talk in written form that include temporal and sequential aspects such as latching, pauses and overlaps and prosodic features such as pitch, sound lengthening and pace of talk. The system also integrates features such as aspiration and laughing. Finally, nonverbal activities such as change of eye gaze and hand gesture are transcribed as well. Therefore, this system is preferred by the present study due to its comprehensive system that includes every major and minor feature that happens in naturally occurring interaction. This comprehensive notation system can help the analysis process in identifying any salient features that are not necessarily verbal.

As the data were in Malay language, the transcription employs multi-linear transcription (Hepburn & Bolden, 2013). Through this system, the first line represents the original talk in the video where in the case of this study is the Malay language, the second line represents morpheme-by-morpheme English gloss of the original that provides translation to the original word and grammatical information in abbreviated way and the third line represents English gloss that aims to take the local and interactional meaning of the original (see Hepburn & Bolden, 2013).

The transcription is also presented in three different columns. The first column indicates the line number for reference on where the talk occurs in the data. This is fairly important especially when findings are presented. The second column indicates the speaker through standardised letter (e.g. AMN for Aiman). Finally, the third column contains the orthographic transcription of the data. The following Figure 3.2 shows an example of multi-linear transcription.

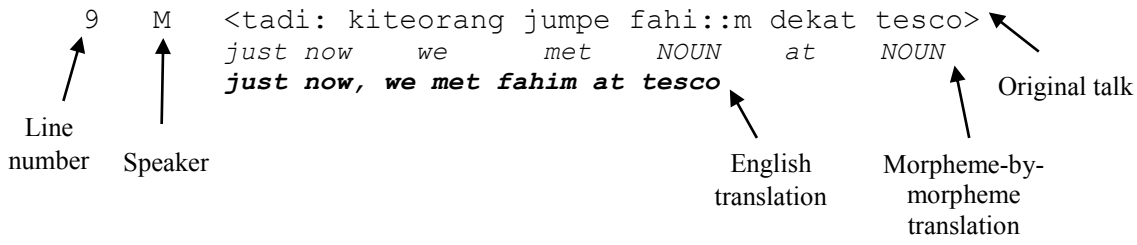


Figure 3.2: Example of Multi-linear Transcription

In doing the transcription, the first step was to watch and listen to recorded videos to become familiar with the interactions. The second step was to transcribe the spoken speech only before filling in with any noted prosodic features such as pitch and sound lengthening and temporal features such as pause, overlap and latching. The pauses were then completed with the exact length of the pauses (in seconds) before the transcription was transferred into word document. To ensure the transcription matches the spoken data, several times of listening to recordings and checking with transcription were performed.

3.8 Method

The present study is principally designed within qualitative research paradigm but with some aspects of quantitative element especially in presenting frequency of occurrences. This is found to be consistent with and confirms to previous studies that investigate OIR practice in everyday interaction.

One component of qualitative research in this study is seen in the data analysis technique. In analysing the sources for interactional breakdowns, strategies for repair initiation and repair, analysis is made by examining turn by turn to locate any salient features. This qualitative examination is guided by the theoretical frameworks namely Schegloff et al. (1977), Philip's Sources of Communication Breakdowns (2008), Philip's Clarification Request (2008), Philip's Repair Response (2008) and Brady and Halle (2002) (see Section 3.2). On the other hand, distribution of sources for interactional

breakdowns and strategies for repair initiation and repair solution are the only quantitative analysis that took place. This is to show the distribution or frequency of occurrence in the data set.

Other components of qualitative research in this study are seen through data collection technique, nature of its data and form of discussion (Creswell, 2009).

3.9 Data Collection and Procedures

The data collection started by first recruiting the participants. As was mentioned in the previous section (section 3.4), participants were recruited from two centres; a cleft clinic which is parked under the supervision of Department of Orofacial and Maxillofacial Surgery, Faculty of Dentistry of one university in Klang Valley and a cleft-related NGO that is based in Kuala Lumpur, Malaysia.

Two key administrators from these two centres were contacted by the researcher to express intention of recruiting children for the study. A meeting with the Head of the Department of Orofacial and Maxillofacial Surgery was held. The meeting was to explain the nature of research and how children will be treated throughout the period of study. Subsequently, the researcher was introduced to one cleft patient (Aiman) and his parents during their scheduled visit to the clinic (for dental treatment). On the other hand, the NGO identified two children (Aniq and Lisa) and asked the researcher to contact the parents once the NGO personally obtained the parents' agreement to be recorded and included in the study.

Once the recruitment process ended, meetings with parents were scheduled. Meetings with Aiman's and Aniq's parents were held at their respective homes while Lisa's mother agreed to meet at a public place (mosque) nearby to their home. The objectives of this first meeting were to explain the nature of the study especially in the aspect of recordings

as the researcher will be present during their family time, to schedule recording sessions and to elicit consent from them. Once the consent forms are signed, the researcher then provided the families with the study's information sheet. Sample of information sheet is given in Appendix A while sample of informed consent letter is given Appendix B.

During the day of recording, the researcher went to the participant' home. After several minutes of explanation on how the process would be, recording tool (a video camera) was set up and placed at strategic location so all participating speakers are visible in the recordings. The researcher was present only as non-participant observer. The family was allowed to speak or interact freely without being restricted to any specific topic or activity. The interaction was also not restricted to any specific time or duration. This process of recording was applied to every recording session for each participant. The researcher was present during most of recording sessions except for Aniq's second and third sessions. The researcher was also not present in the second and third session of Lisa. This was requested by their family members for personal reasons.

The recordings were then transferred from video recorded into researcher's personal laptop. The recording files were named according to participant's pseudonym followed by age, month and year. For example, one of the files was named Aiman_10_Aug2014; Aiman refers to child's given pseudonym, 10 refers to his age at the time of recording while Aug2014 indicates the month and year of recording. The videos were kept in standard format such as flv or mpeg. The end of field works (recording the naturally occurring interactions) marked the beginning of transcription process. The videos were later then played for transcription purpose.

Figure 3.3 summarises the main steps in collecting the data.

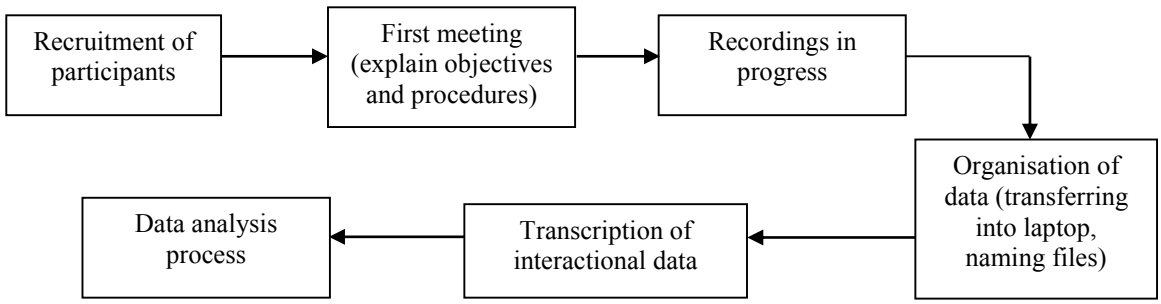


Figure 3.3: Step-by-step of Data Collection Procedures

3.10 Data Analysis

The study is primarily guided by Conversation Analysis (CA) through its principle of turn-by-turn examination. CA scientifically investigates everyday interaction between people. It emerged from the work of Harvey Sacks, Emanuel Schegloff and Gail Jefferson in the 1960s and is considered part of ethnomethodological field (Kitzinger & Frith, 1999). CA basically examines how people accomplish specific social action through 'talk' (Wilkinson, 2009). Prior to the emergence of CA, everyday interaction is viewed as chaotic and unsystematic. However, it was discovered through findings reported within the approach of CA that everyday interaction actually has a systematic order and indeed is an organised process (Have, 2007).

In obtaining its data, CA focuses on large verbal communication practices that are recorded and later transcribed. Thus, the basic principle of this approach is that it is a data-driven process and highly centres on participants of the interaction. Participants or speakers employ various practices while interacting so they can give meaningful social action and also understand other's practice (Drew, Chatwin & Collins, 2001). CA analysts pay attention to these practices in relation to meaning-making process.

There are three main features of CA that make this approach distinct from other approaches. First, CA considers every aspects either linguistic or non-linguistic behaviour

that occur during the process of interaction to be carrying some sort of meaningful social actions. Secondly, the behaviour is connected within a chain of sequence i.e. what is being said is related to what has been said earlier. Finally, this connection allows the sequence to be organised (Drew et al., 2001). On the other hand, Peräkylä (2008) showed three dimensions that CA studies shared; the focus on action, its structure and the accomplishment of intersubjectivity between speakers.

The heart of CA is on natural occurring interaction. In investigating the interaction, CA constitutes its main principles that differentiate itself from other approaches even though it is within the ethnomethodological approach (Yang, 2005). The main principles are turn taking system, adjacency pair and repair (Markee, 2000). Section 2.2 has introduced turn taking system along with adjacency pair while repair has been discussed in Section 2.5.

In general, there are four primary steps that have been taken in order to perform data analysis. The four steps are identification of OIR sequence, coding of sources for interactional breakdowns, coding of repair initiation strategy and coding of repair giving strategy. The coding follows the assigned frameworks for each research question.

In the first step, OIR sequence is identified through the presence of request for clarification. This is seen when speaker suspends the on-going topic of interaction and indicates the occurrence of troubles. Once OIR sequence is identified, coding for each turn within the sequence is made.

Coding for sources of interactional breakdowns primarily follows Philip's Sources of Communication Breakdowns (2008). The coding scheme is given in Table 3.10. Coding for repair initiation primarily follows Philip's Clarification Request (2008) (see Table

3.11) while coding for repair giving strategy follows Philip's Repair Response (2008) (see Table 3.12).

Table 3.10: Sources of Communication Breakdowns

No.	Sources	Code	Explanation
1.	Content rejection	CR	The accuracy of information is questioned by listener (Yont et al., 2000)
2.	Ambiguous referents	AR	The use of vague or unclear expression by speaker to deliver information (Philip & Hewitt, 2006)
3.	Inadequate information	IAQ	Message does not have sufficient information to be understood by listener (Philip & Hewitt, 2006)
4.	Irrelevant information	IRI	Information is not related to the topic of interaction (Philip & Hewitt, 2006)
5.	Inaudibility	IAUD	Speaker speaks softly (Yont et al., 2000) or speech is overlapped thus listener could not clearly hear what is being said (Philip & Hewitt, 2006)
6.	Unintelligible segments	US	There is incomprehensible part in the message (Philip & Hewitt, 2006)
7.	Phonological errors	PE	Speech sound errors such as omission, addition, substitution etc. (Yont et al., 2000)
8.	Idiosyncratic	ID	Speaker uses odd words or phrases that confuse listeners (Philip & Hewitt, 2006)
9.	Non-verbal	NV	Gesture that is not understood by listener (Yont et al., 2000)

Table 3.11: Strategies for Repair Initiation

No.	Sources	Code	Explanation
1.	Non-specific	NS	The use of interrogative words such as "*huh?*"
2.	Specific request for repetition	SRR	Repetition of trouble source with a part of it is replaced with question word such as what.
3.	Specific request for specification	SRS	Listener indicates specific part to be repaired
4.	Request for confirmation	RC	Repetition with rising intonation, reduction or elaboration
5.	Direct request	DR	Request for exact definition or explanation such as "what does that mean?"
6.	Relevance request	RR	Listener questions relevance of message
7.	Cloze request	CRQ	Request that gives two choices to speaker of trouble source

Table 3.12: Strategies to Repair

No.	Strategies	Code	Explanation
1.	Repetition	RPT	Speaker repeats all or part of trouble source
2.	Revision	RVS	Speaker uses alternate labels without adding information
3.	Addition	ADD	Speaker adds information to trouble source
4.	Cue	CUE	Speaker provides background information to trouble source i.e. talking about repairing
5.	Keyword	KW	Speaker emphasises an important word
6.	Explanation	EXP	Speaker explains specific terms in trouble source

Table 3.12, continued

No.	Strategies	Code	Explanation
7.	Inappropriate	INAPP	Speaker provides unrelated response or no response is recorded
8.	Cloze response	CZR	Speaker chooses one of options given in initiation turn
9.	Close-ended response	CER	Speaker uses affirmation
10.	Unintelligible	UNI	Repair is recorded as UNI should there be any difficulties such as background noise or poor speech
11.	Interrupted	INT	Repair is recorded as INT should there be any interruption while speaker responds to initiation
12.	Related response	RRSP	Speaker's responses are related but do not fix breakdowns

On the other hand, coding technique suggested by Dingemanse et al. (2016) is used to code turns according to their identification; trouble source, repair initiation or repair. The trouble source turn is marked as **T-1**, repair initiation is marked as **T0** while repair turn is marked as **T+1**.

Figure 3.4 details the steps by explaining activities that are performed.

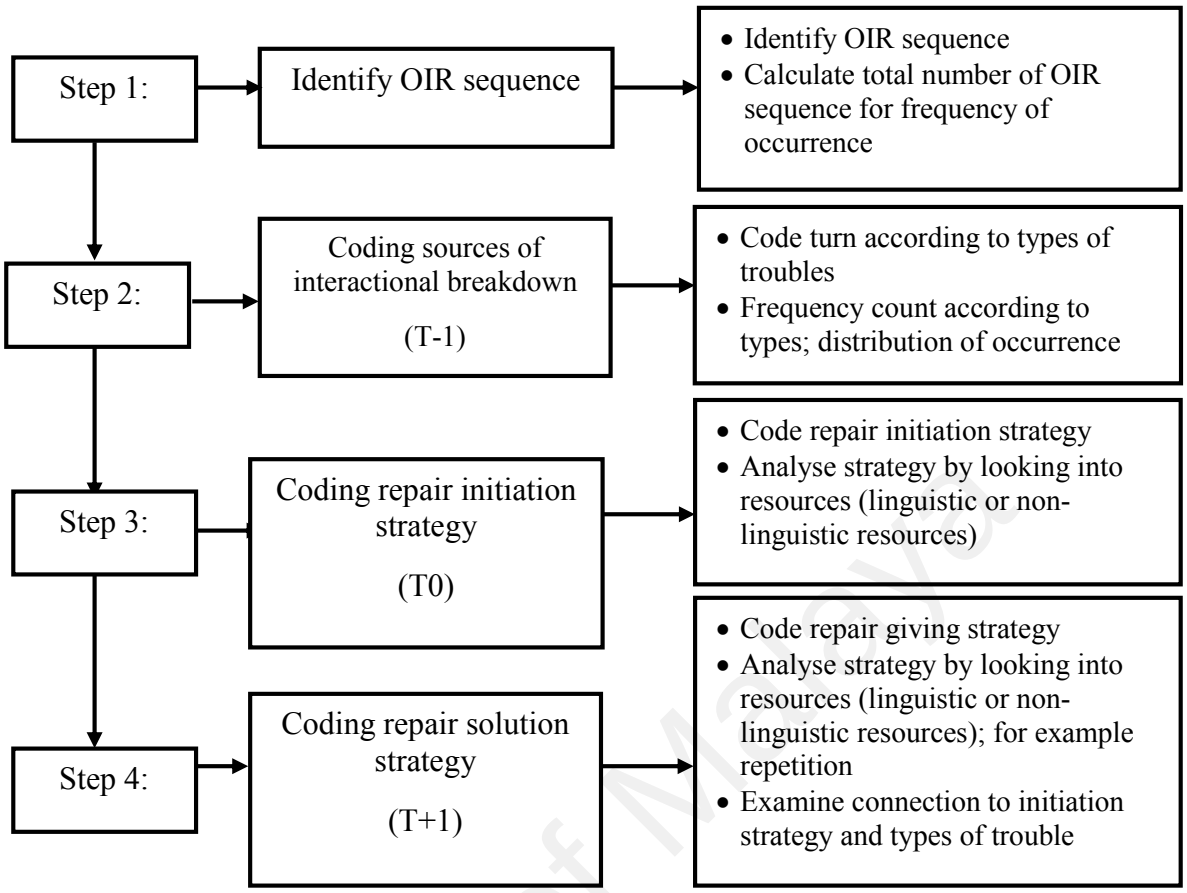


Figure 3.4: Step-by-step of Data Analysis

3.11 Reliability and Validity

Transcription of audio recording, coding of data and analysis are the three main aspects of this study that require validation. Two faculty members who have experience in interactional data were appointed to examine the accuracy of transcription, assigned coding for repair sequence and analysis. The process involved them to look at the transcription while listening to audio recording, examine the translation from Malay to English and assess the assigned coding for repair sequence. In case of dissimilarity with researcher's own works, discussion was made until agreement is achieved.

CHAPTER 4: FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents findings from the analyses on other-initiated repair (OIR) sequences that have taken place in everyday interaction between parents and their surgically repaired CL/P children. In particular, the first section reports sources of interactional troubles that trigger repair initiation by co-speaker. The next second section shows strategies for parents and children to initiate repair following breakdowns and finally, third section discusses strategies for them to offer repair solution after being initiated.

4.2 Sources of Interactional Troubles

The frequency for OIR to occur in interaction is recorded to be at the average of once in every 1.4 minutes (Dingemanse et al., 2015). It thus gives critical need to understand the reasons or troubles that trigger OIR. This section presents analysis on sources of interactional breakdowns that consequently prompt OIR to take place in interaction between parents and their children with surgically repaired CL/P. The coding of sources follows lists given in Philip's Sources of Communication Breakdowns (2008) while turn-by-turn analysis on the sequence is guided by the principle of Conversation Analysis (CA).

Table 4.1 first presents sources of interactional troubles in their frequency of occurrence and speakers that are responsible for them.

No.	Sources of interactional breakdown	Family 1: Lisa		Family 2: Aiman		Family 3: Aniq		Total of Frequency
		Parents	Lisa	Parents	Aiman	Parents	Aniq	
1.	Inadequate information	0	13	9	10	10	9	**51**
2.	Content rejection	1	8	1	22	2	15	**49**
3.	Non-acknowledgement to turn allocation	0	4	0	12	0	12	**28**
4.	Difficulty in topic shift	1	0	4	0	16	1	**22**
5.	Ambiguous referents	1	8	0	2	9	2	**22**
6.	Non-verbal	0	5	0	8	0	2	**15**
7.	Inaudibility	0	7	0	1	0	4	**12**
8.	Unintelligible segments	0	2	0	0	0	7	**9**
9.	Phonological errors	0	1	0	0	0	2	**3**
10.	Idiosyncratic	0	2	0	0	0	2	**2**
11.	Irrelevant information	0	0	0	1	0	0	**1**
Total of Frequency		**3**	**50**	**14**	**56**	**37**	**54**	**214**

Table 4.1: Frequency of Sources of Interactional Breakdowns

Note:
Sources that are not from Philip's Sources of Communication Breakdowns (2008)

In Table 4.1, frequency analysis shows that the most contributing source for OIR to happen is inadequate information. Specifically, 51 OIR sequences are prompted because of this source which majority takes place in children's speech. Next, content rejection where accuracy of information is questioned or perceived as inaccurate is seen in 49 OIR sequences. Similarly, children contribute the most to this source than the parents.

The high number of OIR sequences resulting from these two sources (N=100) suggests that most breakdowns happen when there is problem relating to quality of information instead of quality of speech production as one would commonly associate to cleft-affected speaker. Children in this study have demonstrated poor ability to give insufficient and correct information that further require parents to perform repair initiation.

Other than inadequate information and content rejection, a significant number of OIR sequence is also recorded for ambiguous referents with a total of 22 sequences. Next, problems related to non-verbal and inaudibility are seen in 15 and 12 OIR sequences while a small number of sequences are resulted from other sources. These include unintelligible segments (N=9), phonological errors (N=3), idiosyncratic (N=2) and irrelevant information (N=1).

Interestingly, this study has identified two sources that may serve as extension to sources listed in Philip's Sources of Communication Breakdowns (2008). The sources are failure to acknowledge turn allocation by co-speakers and difficulty associated to topic shift. Failure to acknowledge turn allocation happens when children ignore or fail to take up speakership role despite being allocated through specific strategy such as name-calling, finger pointing or eye gaze by parents. Consequently, 28 OIR sequences took place in the interaction. On the other hand, difficulty in topic shift refers to situation when children experience trouble after parents extend the on-going topic of interaction or introduce new topic. This particular situation is observed in 22 OIR sequences.

The following sub-sections analyse randomly selected extracts by looking at their context of occurrence.

4.2.1 Inadequate Information

In particular, inadequate information happens when children produce remarks or give responses that have been treated to be incomplete for parents to understand. It thus requires parents to initiate repair in the subsequent turn.

Extract 1 is an example of situation where OIR happens due to inadequate information given by one of the speakers. The extract illustrates conversation between Aiman (AMN) and his mother (M) about news that suddenly is aired on TV during lunch.

Extract 1: Najwa Latip (Aiman-Mother)

1	F	a:: kan dia tak bagi ni a?	
		EMP he not give this EMP	
		a:: he did not give this a?	
2		(.)	
3	M	ha?	
4	F	sos?	
		ketchup	
		ketchup?	
5		(0.3)	
6		tak de dah	
		no more	
		no more	
7		(0.2)	
8		tak de langsung ((*father looks at the mother*))	
		no at all	
		no at all	
9		(1.8)	
10	AMN	<ade najwa latip>	**T-1**
		has TOA	
		(it) has najwa latip	
11	M	ye? (.) malam ni ye dik?	
		really? tonight right TOA	
		really? tonight right dik?	
12		(0.2) ((*Aiman turns his gaze to TV*))	
14		malam ni ye dik?	
		tonight right TOA	
		(it is) tonight right dik?	
15		(0.2)	

*EMP=Emphasis; TOA=Term of address

Extract 1 begins with father (F) is seen to seek confirmation from M on something relating to their lunch. Specifically, he is looking for ketchup that should come together with the chicken that they bought for lunch. The interaction between them with minimal participation from M happens until line 8. Line 9 somehow indicates the end of previous topic when there is a long pause (1.8 seconds). At this time, participants are noted to concentrate on their lunch with AMN casually changes gaze between food and television.

Claiming the next turn by self-selecting himself, AMN in line 10 introduces topic referent `najwa latip` (Malaysian singer) when news about her concert is aired on television. Constructing his turn simply through verb phrase (verb + object) which is acceptable in Colloquial Malay (Wahab, Razak & Sultan, 2016), the topic however is introduced with an absence of background information; as in no specific details. Following this, M takes up speakership role in line 2 and initiates repair (`ye?`). Even though the repair initiator `ye?` is an open-class repair word (Drew, 1997), it is evident that M is in fact seeking confirmation on time of the concert when she adds information to make her initiation clearer (`malam ni ye dik?`). From this, it shows that M actually understands the contextual background of AMN's information probably due to the news being aired on TV at the time of speaking, but the initiation is made when there is lack of information that M intends to know (time of the concert). Therefore, it results in AMN's turn to be treated as having lack of information and prompts for repair initiation in the next turn of speaking.

Extract 1 has shown inadequate information when children introduce topic. Similarly, problem in giving sufficient information is also evident when children respond to question. In Extract 2, mother (M) has to perform several repair initiations when Lisa (L)'s answers do not contain sufficient information to give immediate success.

Extract 2: Monkey and tortoise (Lisa-Mother)

1	M	dah tahu dah cerita monyet nyet dengan kure kure? *have know already story monkey Ø with tortoise?* ***have (you) already know story (of) monkey with tortoise?***	
2	L	da::::h *have* ***(yes, I) have***	
3	M	cikgu penah cerita: dulu? *TOA has told before* ***has teacher told (the story) before?***	
4		(.)	
5		da:h *has* ***(yes, the teacher) has***	
6	L	tak (.) kakak pernah tengok dalam t- dalam cerite: *no TOA has watched on Ø on movie* ***no I have watched on t- on movie*** ((*Lisa looked at other direction*))	**T-1**
7	M	cerite ape? *movie what* ***what movie***	
8	L	cerite:: pade zaman dahulu *movie once upon a time* ***movie (on) once upon a time***	**T-1**
9	M	pade zaman dahulu (.) yang macam upin ipin tu *once upon a time which similar TOA that* ***once upon a time,(one) similar to that upin ipin***	
10	L	ye *yes* ***yes***	

*TOA=Term of address

M in Extract 2, line 1, begins when she is confirming L's knowledge on children's tale of monkey and tortoise in which L appropriately responds in line 2. L deploys question word in M's TCU (dah) as response with final sound lengthening that indicates the end of her turn (Zellers, 2013). M further continues to expand the topic by showing interest on how L knows the story. This is accomplished in line 3 when M assumes L to know the story from her school teacher. The assumption is framed within interrogative format with rising intonation. With this strategy, it requires L to give answer; complying with the rule of adjacency pair and both can continue to interact (Schegloff & Sacks, 1973). Following this, L first agrees to M's assumption (line 5) but in line 6, she self-repairs by claiming to know the story through movie or TV show (In Colloquial Malay,

the word *cerite* or *cerita* can function as noun to mean movie or verb to mean telling a story; speakers can easily differentiate both depending on the context of use). However, L's use of word `cerite` (movie) is insufficient as M can be seen to initiate repair in the following line. The word is perceived to be general description as in this case, it can be any movie that has similar characters. In line 7, M initiates repair when she specifically wants to know what movie (`cerite ape?`) that is evident in question word `ape` (what). This repair initiation prompts L to repair by detailing what movie but again, she uses general description `cerite pade zaman dahulu` as her response.

L's inadequate information triggers another repair initiation when M has to make adjustment to her initiation by including example (`upin ipin`) in the turn (line 9) and seeks confirmation whether it is similar to what L is referring. This finally brings closure to the OIR sequence when L agrees. Even though such context can also demostrate an act of pursuing for responses from mother, Extract 2 shows an OIR-sequence when the word *cerite* and phrase *pade zaman dahulu* are perceived to be inadequate for mother to accomplish her overall understanding as she is pursuing for information on how Lisa knows the story. With the word/phrase alone, it fails to inform mother thus resulting in repair initiations.

The two extracts (Extract 1 and 2) have shown failure in children to give sufficient information so the message can be understood immediately. Two possible explanations can be offered following the analysis; inadequate information happens when children fail to accompany their information with necessary supporting details especially when topic is introduced and second, the use of generic description as responses to their co-speakers. In addition, the inadequacy of information is also evident in their turn size that is shorter and constructed using keywords in preceding turns produced by parents. Such feature has been reported to be among the primary charateristics of speech by children with surgically repaired cleft (Pushpavathi, Kavya & Akshatha, 2017).

4.2.2 Content Rejection

Content rejection is found to be the second most contributing source to breakdowns between parents and their repaired CL/P children. This happens when children produce responses that are questioned in their accuracy. For instance, in Extract 3, Lisa (L) gives wrong answer to mother (M)'s question despite claiming to know it in prior turn when they are completing L's school work together.

Extract 3: Grilled fish (Lisa-Mother)

1	M	[ni (.) ape die? (.) cube crite pasal ape?	
		this what is it try tell about what?	
		this, what is it? try, (it) tells about what?	
		[((*mother points to specific part in the book*))	
2	L	ala:: hari ↑tu °adik dah belajar° (.) dah ta↑hu	
		EMP day that TOA have studied have known	
		ala that day I have studied, (I) have known	
3		ni >ikan ba↑ka:r< ((*Lisa points to picture in the book*))	**T-1**
		this fish grill	
		this (is) grilled fish	
4	M	ye ke ikan bakar? (.) bukan <semangkuk gulai>?	
		is it fish grill not a bowl curry?	
		is it grilled fish?, not a bowl of curry?	
5		(.)	

*TOA=Term of address; EMP=Emphasis word

In line 1 of Extract 3, M begins by asking L as a mean of testing her knowledge on a specific part in the school book. M brings L's attention to the intended part (a picture) in the book when she employs proximal deictic marker (*kata ganti nama tunjuk*) `ni` (Yusoff, 2003) with her finger pointing to it. This makes the request to be specific before M proceeds to ask; she first asks with an open-format (`ape die?`) and continues with more specific request after a short pause. This strategy manages to bring L's attention to the topic of interaction and in line 2, L acknowledges the speakership role. But interestingly, instead of giving answer to M's question, L claims to have studied that part and know the answer. L in fact begins the turn with `ala` that gives emphasis to her claim. She then proceeds by giving the answer in line 3. There is a rise in intonation towards the end sound (`ikan ba↑ka:r`) as indication for declarative utterance i.e. she knows the answer

and the answer is correct (Gut & Pillai, 2015). However, the answer is found to be questioned by M when she initiates repair as evident in line 4.

In Extract 3, M rejects L's information through confirmation request and offers a possible solution in the initiation turn. For this particular reason, the extract appears to be an OIR-sequence. Similarly, Extract 4 shows mother (M) to reject Aniq's (AQ) claim on lack of benefit from reading comic and offer possible solution.

Extract 4: Reading comic (Aniq-Mother)

1	M	bu- bace komik ke: bace buku cerite ke: suke tak? *read comic or read book story or like Ø* ***read comic or read story book, (do you) like (it)?***	
2	AQ	tak .hh *no* ***no***	
3	M	hm::	
4		kalau tak suke bace buku:: macam mane nak pandai::? *if don't like read book how to clever* ***if (you) don't like (to) read book, how to (be) clever?***	
5	AQ	komik buat ape: nak pandai: ((*Aniq gazes at mother*)) *comic do what to clever* ***what (can) comic do to (become) clever***	**T-1**
6	M	e:: kene:: ade jugak sedikit info *Ø must have too a bit info* ***must read too (for) a bit of info***	
7	M	ha: kene rajin membace: (.) nanti (.) senang nak buat karanga::n? *Ø must frequent read later easy to do essay?* ***(you) must frequently read, later (it will be) easy to do essay?***	

In line 1, M gives suggestion on reading materials such as comic and story book before asking whether he likes to read or not through close-ended question (`suke tak?`) (Govindan & Pillai, 2009). This makes AQ to simply respond `tak` (no) in line 2 which is appropriate to the type of question used by M. Following his response, M constructs her turn with filler `hm::` that suggests hesitation towards AQ's response (Andersson, Yamagishi & Clark, 2010). The hesitation is evident in next line when M makes suggestion through rhetorical question (Frank, 1990) that emphasises on the fact that he

might not do well academically if he does not read. AQ responds that reading comic will not bring him any benefits even though M uses comic as one example of reading material only. While saying, AQ maintains gaze to M that could suggest a sign of exerting his response (Shepherd, 2010). However, the response is rejected by M. In doing so, she first produces filler `e::` as TCU that shows her unfavourable reaction to the response (Ansar, 2017) before suggesting the benefit of reading which is to give information (line 6) and assist in essay writing (line 7). Interestingly, line 7 shows M's suggestion is produced with rising intonation. Even though M can produce declarative sentence considering her dominant role in the interaction; being parent in collectivist society (Keshavarz & Baharudin, 2009), she opts for interrogative form. This way allows M to be responded with an acceptance to the suggestion by AQ (Mata & Santos, 2014).

Overall, it can be noted from both Extract 3 and Extract 4 that content rejection occurs when responses given by children have been treated to be inaccurate by the parents. It is not necessary for content rejection to occur in question-answer pair when response is questioned, but it can happen in disagreement to given suggestion. This results in repair initiation which is mostly designed as confirmation request that supplies possible solution for children.

4.2.3 Non-acknowledgement to Turn Allocation

Analysis on interactional data reveals that OIR can also happen when children abandon their speakership role after being specifically allocated by the parents. It has been noted earlier that CL/P affected children can exhibit poor participation skills during interaction (Cocquyt et al., 2012) (see Section 2.7.1). One aspect of participating in interaction is to follow the rule of turn-taking system that can ensure the continuous flow of the process (Schegloff et al., 1974). When children ignore turn after they have been specifically allocated, it results in repair initiation by the co-speaker until they take up the turn. In

Extract 5 for instance, Aiman (AMN) does not respond to mother (M)'s question even though his body language shows his awareness on the turn allocation.

Extract 5: Is it delicious? (Aiman-Mother-Father)

1	M	sedap dak dik? *delicious is it TOA* ***is it delicious dik?***	
2		((*Aiman looks at the mother as father returns to his seat from kitchen*))	**T-1**
3		(.)	**T-1**
4		hm sedap ke:? *Ø delicious TAG* ***hm delicious?***	
5		((*mother looks at Aiman*))	
6	F	nak sos tak? *want ketchup not?* ***(you) want ketchup (or) not?***	
7		((*father looks at Aiman; Aiman continues to eat*))	**T-1**
8		(.)	**T-1**
9	M	ha?	
10		(0.1)	**T-1**
11	F	sedap ngan? *delicious right* ***delicious right?***	
12		(.)	**T-1**
13	A	nak *want* ***(I) want***	
14		((*Aiman looks at his chicken*))	

*TOA=Term of address

Extract 5 captures interaction when the family is having lunch. M in line 1 asks AMN on how the food tastes through close-ended question. Considering it is a multi-party interaction, M completes the question with TCU `dik` (term of address for AMN) that specifically allocates the next turn to AMN. Following this, AMN establishes gaze to M. The mutual eye gaze also indicates AMN's awareness on turn being allocated to him. However, he does not produce any verbal outputs that consequently cause a short pause (line 2-3). M continues by repeating the same question to AMN and she re-establishes mutual gaze with AMN. At this point, father (F) joins the conversation and makes an offer to pass one food item (ketchup) to AMN. Similarly, F employs eye gaze as a way of

allocating next turn to AMN but the next turn is still not taken up by AMN. This situation has resulted parents to continue with further questions devoted to AMN (line 9 and line 11). The sequence ends with AMN putting a request of wanting something that causes the previous topic to be abandoned. From Extract 5, it is evident through AMN's eye gaze that he is aware on the turn being allocated to him (Gu & Badler, 2006) but he fails to take up turn of speaking thus violating the rule of turn-taking i.e. does not provide answer to question.

Extract 6 continues to highlight similar situation of children's abandoning speakership role after being allocated by the parents. In Extract 6, Lisa (L) fails to respond to mother (M)'s question while they are placing an order at a restaurant.

Extract 6: No such drink (Lisa-Mother)

1	M	tak ade: *((both establish mutual gaze))*	
		don't have	
		don't have	
2		(.)	
3		nak ape?	
		want what	
		what (do you) want?	
4		cakap la dengan acik↑	
		say EMP to TOA	
		say la to (the) uncle	
5		(.)	**T-1**
6	M	nak minum ayer ape?	
		want drink water what	
		what drink (you) want?	
7		(0.4)	**T-1**
8		hm:: nak yang ape?	
		want which what	
		hm what (do you) want?	
9		ayer ayer bunge?	
		drink flower	
		flower drink?	
10		(.)	**T-1**
11	L	hm:: tak nak *((Lisa shakes her head))*	
		don't want	
		(I) don't want	

In line 1 of Extract 6, L is informed by M that the drink she has requested is not available. At this point, both M and L have developed mutual gaze. M continues after a

short pause by asking her to make other choice (line 3). Instead of waiting for L to give answer, M claims the next turn and instructs L to tell the waiter that is waiting while they talk (line 4). Following question and instruction, it is clear that the next turn is allocated to L (Nomlomo, 2016). L however does not respond and this has resulted in another short pause. In line 6, M claims speaking turn and recycles her earlier question; but this time in a more specific way. She employs words `minum ayer` that should give idea to L to respond i.e. the drink she wants. Surprisingly, it causes a rather long pause (0.4 seconds) and M again claims speakership role and continues to initiate as evident in line 8 and 9. The suggestion of drink for L to have (`ayer bunge`) manages to obtain L's response when she rejects the suggestion.

Extracts 5 and 6 have shown that the possibility for children to ignore turn allocation even though they are aware on the allocated turns. Closer look on the extracts suggests that the abandonment of turn is possible especially when the children have attention on other simultaneous activities during interaction. For instance, AMN's ignoring turn might be due to his attention on the lunch (this is evident when he makes request for specific food thus abandoning previous topic) while L seems to take time to think of drink that she wants without producing any verbal outputs and this has caused M to continuously initiate to ensure there is progression in the interaction.

4.2.4 Problems in Topic Shift

OIR sequence is also launched when there is transition in topic of interaction i.e. topic is either extended or new topic is introduced once previous topic concludes. Similar to abandoning turn allocation, this could be another possible characteristic of poor participation skill of CL/P children in interaction (Cocquyt et al., 2012). In Extract 7, Aniq (AQ) seems to be having trouble when mother (M) extends the topic of interaction.

Extract 7: Is father fierce? (Aniq-Mother)

1	M	cikgu dengan mak sape garang?	
		TOA and TOA who fierce	
		(between) teacher and me, who is fiercer?	
2	AQ	hehhehhehe ah same ((*Aniq laughs; maintains gaze at M*))	
		same	
3	M	o same:#	
		same	
4		(.)	
5		rase rase nye mak lagi garang kan?	
		guess EMP TOA more fierce right	
		(I) guess I am more fierce right	
6	AQ	hahahaha ((*Aniq gazes away and laughs*))	
7	M	hhh ayah garang tak?	**T-1**
		father fierce EMP	
		is father fierce?	
8		(.)	
9	AQ	ha?	
10	M	ayah garang tak? ((*Aniq maintains gaze at mother*))	
		TOA fierce EMP	
		is father fierce?	
11	AQ	hahahahaha #garang	
		fierce	
		(yes) fierce	

In line 1, M is trying to know who AQ perceives to be fiercer when she compares herself to AQ's school teacher. This is delivered in a form of question and she in fact gives option for AQ to choose and give his response. AQ acknowledges this question with a laugh that may signal his understanding on the question (Wilson, Muller & Damico, 2007) yet hesitant to make a choice. The hesitation is confirmed when AQ gives a rather neutral answer to the question by claiming both to be equally fierce instead of naming either one (line 2). M acknowledges AQ's response but in line 5, she suggests herself to be fiercer than the school teacher. This suggestion is designed in question format with particle `kan` that functions to highlight the obvious fact (Tay, 2014). AQ instead of agreeing or disagreeing produces another laugh as way of avoidance in giving answer and he even withdraws the mutual gaze he has shared with M earlier. Noticing this, M continues in line 7 and here, she extends the topic by including AQ's father to the comparison. After a short pause, AQ initiates repair signaling his trouble through open-

class repair word ha? (Drew, 1997) that can be used to signal trouble in understanding (Kendrick, 2015). Trouble of hearing is not possible due to close proximity between M and AQ during the interaction. M then repeats the question and the sequence is close when AQ responds.

Extract 8 further highlights trouble experienced by children when the topic of interaction is extended. In the extract, Aiman (AMN) initiates repair from mother (M) when M is looking for confirmation on school books that they need to buy.

Extract 8: Nilam Book (Aiman-Mother)

1	M	kene baya:r pibg tiga puluh ringgit *need pay PTA thirty ringgit* ***need (to) pay PTA thirty ringgit***	
2		adik hari tu mama ade beli buku nilam tak? *TOA day that TOA did buy book NOUN TAG* ***adik, that day did I buy the Nilam book?***	**T-1**
3		((*mother looks at Aiman*))	
4		(0.2) ((*Aiman has mutual gaze with mother; he then nods his head up to mother*))	
5		ade: kan buku nilam? *there right book NOUN* ***there (is) right Nilam book?***	

*PTA=Parent-Teacher Association; TOA=Term of address

Line 1 in Extract 8 shows M to make a declarative statement to AMN that she needs to pay RM30 for his school book. Following this, in line 2, she extends the topic by wanting to know whether the book has been bought or not. The question is specifically dedicated to AMN when M employs the TOA adik as her TCU. Both also establish mutual gaze at this point of interaction signalling their involvement and commitment to each other (Jokinen, Nishida & Yamamoto, 2010). With the use of tag word tak, AMN can simply respond to the question by stating yes or no. However, there is a notable silent while both maintain the mutual gaze. AMN then initiates repair from M by nodding his head up. The repair initiation by AMN can function similarly as open-class repair word when it does not locate the trouble specifically (Svennevig, 2008). This could suggest his trouble in either hearing or understanding (Kendrick, 2015). Following this, M puts

forward the question again but this time, she makes adjustment in the format by producing a confirmation request that she has bought the book.

It is evident in Extract 7 and 8 that children initiate repair to signal trouble following topic extension made by the parents. According to Bloch, Saldert & Ferm (2015), topic shift can in fact become one possible place in interaction for communication breakdown to occur. This is evident in this study where children with surgically repaired CL/P especially Aiman and Aniq demonstrate their failure through repair initiation following topic shift. Such failure may be linked to their history with cleft that affects their cognitive functioning (Roberts, Mathias & Wheaton, 2012). It is also understood that cognitive skill is pertinent for successful interaction (Dingemanse & Enfield, 2015).

4.2.5 Ambiguous Referents

The next reason for OIR sequence to be taking place in interactional data between parents and their surgically repaired cleft children is ambiguous referents. The following Extract 9 shows one occurrence of ambiguous referents in the data set. In this extract, Aiman (AMN)'s use of word *elok* (to mean nice, fine or in certain context, beautiful) to describe his fasting condition is treated to be problematic by father (F).

Extract 9: Fasting (Aiman-Father)

1	F	HEY puase cam ne?	
		fasting how	
		hey, how (is) fasting?	
2		(.)	
3	A	elok	**T-1**
		fine	
		fine	
4	F	elok?	
		fine	
		fine?	
5	A	((*Aiman nods his head*))	
6		(0.3) ((*father stares at Aiman while Aiman is eating*))	
7	F	◦elok ape yang elok◦	
		fine what is fine	
		fine, what is fine	

When F asks AMN on his fasting condition (the data were collected during the month of Ramadhan, a month where Muslims abstain from drinking or eating in the day), AMN responds with `elok` (line 3). However, when AMN uses the word to describe his fasting condition, it becomes a trouble source because the word does not fit the context of use. The word *elok* in Malay language often describes one's appearance, behaviour of someone or weather (Kamus Dewan, 1997). For example, today's weather is nice can be translated into Malay language as *cuaca hari ini sangat elok*. But AMN's choice of word here seems to be odd because the word is not used to describe a person's condition. Consequently, F in line 3 repeats the word in interrogative form to signal his confusion.

Similarly, the use of expression *kecik* (small) in Extract 10 signifies the occurrence of OIR that is due to ambiguous referent. In Extract 10, Aniq (AQ) is having conversation with his mother (M) about one boy that is living in their neighbourhood.

Extract 10: Boy next door (Aniq-Mother)

1	M	sape name ana:k anak cikgu sebelah yang kecik tu? *what name son teacher next which small the* ***what (is) the name of son of teacher next (door)which is the small***	**T-1**
2	AQ	kecik? *((Aniq turns to mother))* *small?* ***small?***	
3	M	yang kecik sekali tu:: yang baye afif tu:= *which youngest one the which same NOUN the* ***the one which is youngest, same with afif***	
4	AQ	=yang baye afif *which same NOUN* ***same (with) afif***	
5		kecik ke die? *small Ø he* ***is he small?***	
6	M	TAK la:: keci::k maksudnye die anak yang keci::k *no Ø small means he son which youngest* ***no, small means he is the youngest son***	

In Extract 10, an interactional breakdown occurs when M in line 1 uses the word `kecik` or in Standard Malay *kecil* (small) to refer to the son of a teacher that lives near to their place. In Colloquial Malay, the use of *kecil* is common to refer to the order of sibling whereby the youngest is often referred to as "the smallest". However, AQ in the context seems to understand it as the size of the boy's body. Thus, the word becomes unclear to him and it can be seen in line 2 where he repeats the trouble word with a rise of intonation. This makes M to make the expression clear in the next following lines where in line 6, M explains the meaning of *kecik* as the youngest to Aniq's understanding.

Extracts 9 and 10 have shown the children's difficulties associated to expressive and receptive vocabulary. Such difficulty has in fact been reported in existing literature that document the delays in acquiring expressive and receptive vocabularies (Sedaghati, Darouie, Derakshande, Memarzade & Mahaki, 2016). Improper selection of word to describe his fasting condition as evident in Aiman's speech and Aniq's difficulty to understand word used by his mother despite being commonly used further highlight the limitation faced by children with history of CL/P in this area.

4.2.6 Inaudibility

Inaudibility relates to problem in hearing; one of the reasons for breakdowns to occur in interaction (Schegloff et al., 1977). This problem can be caused by surrounding noise in which the interaction takes place or overlapping speech between speakers who claim similar turn of speaking especially in multi-party interaction (Aoki et al., 2006).

Extract 11 shows one of the examples in which the OIR sequence is launched due to one of the speakers is having issue with hearing of what is said.

Extract 11: Watching TV (Aniq-Mother)

1	M	kalau hari skolah nak tengok tv berape jam? *if day school want watch tv how many hour* ***if school day, how many hour (do you) want (to) watch tv***
		((*Aniq gazes away*))
2	AQ	hm: ((*Aniq brings his body backward and gazes at mother*))
3		°tengok je la° **T-1** watch just ***just watch***
4	M	hm?
5	AQ	tengok je la ((*Aniq looks and smiles at mother*)) *watch just Ø* ***just watch***

*TV=television

The interaction in Extract 11 begins when M asks AQ on how many hours he would spend on watching TV during school days. Following this, AQ gazes away to signal he actually needs time to think (Rossano, 2013). His thinking activity is also evident when he uses filler hm: with slight sound lengthening as his TCU that also functions as turn holding unit. AQ then gazes at M and responds in a rather slow volume of speech (line 3) indicated through degree mark. Even though this is a dyadic interaction, AQ's speech volume is noted to be low. Because of this, M initiates repair through open-class word that is common to treat trouble in hearing (Kendrick, 2015). AQ repeats his earlier response in the exact structure but he manages to adjust the speech volume that consequently, closes the OIR sequence.

Another OIR sequence that happens due to problem in hearing is given in the following Extract 12. The extract is also taken from interaction that involves Aniq (AQ) and his parents. In this extract, AQ's speech overlaps with his mother (M)'s turn while responding to his father (F)'s question.

Extract 12: Number thirteen (Aniq-Father-Mother)

1	F	anik dapat nombo berape kelas? *TOA get number what class* ***anik what number (do you) get (in) class?***

2	AQ	ha?	
3	F	perikse?	
		exam	
		(in) exam	
4	M	ala:: tinggal [lam kerete:	
		Ø left in car	
		ala:: left in car	
5	AQ	[tige belas	**T-1**
		thirteen	
		thirteen	
6	F	lime?	
		five	
		five	
7	AQ	<tige> be↓las=	
		thirteen	
		thirteen	

In Extract 12, the inaudibility of speech is not due to lower volume of speaking but it happens because of overlapping speech that is common in multiparty interaction (Aoki et al., 2006). In fact, overlap in speech is common to be identified as one possible trouble source (Wiklund, 2016). F in line 1 is seeking information from AQ on his placement in class after examination. In line 5, AQ's response is overlapping with his mother's speech that begins earlier and this causes F to be unable to hear the number accurately. Instead of hearing *tige* (three), F listens to it as *lime* (five) (line 6).

4.2.7 Non-verbal

The use of improper or unsuitable body language can also cause OIR sequence to be taking place in everyday interaction. In Extract 13 for instance, Aiman (AMN) suddenly points to one item while the family is having lunch without producing any verbal outputs. This behaviour has prompted mother (M) to initiate repair through confirmation request.

Extract 13: I want ketchup (Aiman-Mother)

1	AMN	((*Aiman pointed to sauce and gazed at her mother; no verbal output*))	**T-1**
2	M	ni?	
		this	
		this?	
3		(0.5)((*mother was looking at the sauce; Aiman looked at the mother*))	

In the Extract 13, AMN requests for one particular item (probably ketchup) to be passed to him. Instead of making a verbal request, Aiman simply points to the intended item and he allocates the next turn through a mutual gaze that he develops with M. This is evident in line 1. M who is not sure of which item AMN is requesting claims the next speaking turn and requests for confirmation as shown in line 2. From this short extract, it first shows that OIR can also be launched when speaker does not understand certain body language and secondly, it might suggest one way for children to make a simple request without incorporating verbal speech that could describe children's speech behaviour. In addition, the cultural background of speakers which in this case is Malay may influence how they behave in interaction. However, this particular aspect requires further examination.

Another example that shows non-verbal to become one source of interactional breakdown is given in Extract 14. The extract specifically depicts situation where Aiman (AMN) is looking at mother (M) with a "blank" gaze.

Extract 14: Staring (Aiman)

1	AMN	*((Aiman gazes at the mother))*	**T-1**
2		(0.1)	
3	M	((*Mother nods her head up and gazes at Aiman*))	
4	AMN	(0.2) ((*Aiman turns gaze from mother to camera*))	

Even though this particular sequence does not include any verbal action, the situation is structured to an OIR sequence. The first line that is a continuation from previous line where AMN is gazing at M for quite some time while she is talking to his father. This gaze attracts M (Weick, McCall & Blascovich, 2017) that seems to indicate AMN's attempt to inform her something. In line 3, M "questions" AMN but through non-verbal by looking at him and nods her head up. However, AMN does not respond but takes his

gaze away to be facing other direction. Similarly, such behaviour can be linked to speakers' cultural background that may shape their interactional behaviour.

4.2.8 Unintelligible Segments

Unintelligible segments refer to incomprehensible part in speaker's utterance (Philip & Hewitt, 2006). This could be due to laughing or fast pace of speaking that consequently causes trouble to the co-speaker to hear clearly of what is being said. In Extract 15 for instance, when Lisa (L) was asked by mother (M) to name pictures in her school book, she does it in rather quick naming with several prosodic features i.e. high pitch, sound lengthening and also notable exhalation.

Extract 15: A what? (Lisa-Mother)

1	L	>a plate an a hand< hhh flo↑we::rs	**T-1**
2	M	an a?	
3	L	a shelf °shelf°((*Lisa demonstrates with hand gesture but maintains her gaze at the book*))	

The interaction continues from previous context where L is reading the exercise loudly. While reading one line, she increases the speaking pace and later appears to have several noticeable prosodic features i.e. exhalation, rise in intonation and stretching of end sounds. This seems to be a problem to M (Wiklund, 2016) that in the next turn, she produces a repair initiation (line 2) that specifically requests L to repeat what she has named earlier. Following this, L mentions the word twice for emphasis and accompanies with hand gestures that demonstrates to M what a shelf looks like. This gestural behaviour suggests that L perceives M's trouble to be within understanding but the situation suggests the problem to be on something else.

Another example of unintelligible segments is given in Extract 16. The extract highlights Aniq (AQ)'s laughter that accompanies his response that consequently causes his speech to be unintelligible to mother (M).

Extract 16: Do you love your brother (Aniq-Mother)

1	M	[aniq sayang ngan adik tak?]= *TOA love with TOA NEG* ***aniq, do (you) love your brother?***	
2	AQ	[hahhhhhh #say(hahh)ng ((*Aniq gazes at mother*)) *love* ***(yes I) love***	**T1**
3	M	ha? [aa::	
4	AQ	[hahahaha	

In Extract 16, the laughter happens when AQ wants to respond to M's question that seeks him to state his love to his siblings. M in line 1 specifically asks AQ whether he loves his younger brother or not. M employs tag question that allows AQ to either respond as yes or no. However, given the context of question that can be considered personal despite Malay society places high value of love and affection (Yaacob, 2005), it is understandable for AQ to begin his turn with laughter that also suggests his orientation to the topic (Jefferson, 1984). There is also a certain degree of creaky voice marked through [#] symbol and in-breath while he mentions the word as his response. Similarly, these prosodic features that accompany his response has caused trouble to M to hear his response clearly (Wiklund, 2016). This is seen in repair initiation that is made by M in line 3.

4.2.9 Phonological Errors

Phonological errors are common to be associated to speakers affected with CL/P (see section 2.7.4 for discussion on this). However, OIR sequence that is resulted from phonological error is not significant in number of occurrence. The data has shown only

three OIR sequences (N=3) that are launched due to phonological errors where two of them happen in Aniq's interaction while one is seen in Lisa's interaction. Interaction with Aiman does not record any OIR sequence that is related to phonological error. It is worth mentioning that in actual data set, errors in phonology are quite significant. But these errors are not subjected to analysis because either they have been self-repaired by the speakers or the errors are simply ignored especially by parents who can be hypothesised to adapt themselves to the children's pronunciation.

Nonetheless, Extract 17 shows how phonological error prompts OIR sequence. In the extract, father (F) is asking Aniq (AQ) on Harris, his school friend. F expresses his intention of knowing which class is Harris in at their school. However, trouble occurs when AQ's pronunciation of the class name is not clear to F.

Extract 17: Harris' class (Aniq-Father-Mother)

1	AQ	die kela::s *he class* ***he (is in) class***	
2		(0.1) *((mother keeps gaze at Aniq))*	
3		pik(h)ap kot *((Aniq gazes at the ceiling))* *NOUN guess* ***(I) guess pikap***	**T-1**
4		(.)	
5	F	ha?	
6	AQ	pikhap *NOUN* ***pikap***	**T-1**
7		(0.1)	
8	F	sikap? *NOUN* ***sikap***	
9	M	cekap *NOUN* ***cekap***	
10	F	ce:[kap *NOUN* ***cekap***	
11	AQ	[∘kap∘ ha	
12	F	ce↑ka:p	

After F asks AQ on the class of Harris (AQ's friend), line 1 shows AQ's response. In line 3 after a pause, he mentions the name of the class which is *pikap* but it is noticeable that the pronunciation of /k/ is accompanied with a slight burst of breath (aspiration) thus it becomes /kh/. F initiates repair through open-class repair word to signal trouble in hearing (Kendrick, 2015). This prompts AQ to repeat his earlier response (line 6). It is evident that F is still having issue and in the second repair initiation, he mentions possible word that is pronounced by AQ (`sikap?`). The aspiration is ignored rather the focus is on the first syllable of the word. Mother then interrupts and mentions the exact class name which is *cekap*. Mother also places an emphasis on the first syllable thus highlighting the problem in Aniq's pronunciation of the class name. Given AQ's severity level of cleft, it is not surprising for him to have issue in pronouncing words that contain high pressure consonants despite having his cleft repaired (Prandini, Pegoraro-Krook, Dutka & Marino, 2011).

The next example of phonological error is taken from Lisa (L)'s interaction with her mother (M). When being asked by M on what is in her drink, L's answer which is apple (Malay is *epal* but colloquial Malay's pronunciation is /æpel/) is wrongly pronounced. Extract 18 highlights the situation.

Extract 18: Apple (Lisa-Mother)

1	L	ta[::k	
		no	
		no	
2	M	[ade laici=	
		has lychee	
		(it) has lychee	
3	L	=tapi die epel epel epe↓:l	**T-1**
		but it apple	
		but it (is) apple	
4	M	ape:l?	
		apple?	
		apple?	
5	L	ha *((Lisa withdraws mutual gaze))*	

The first line in Extract 18 begins with disagreement made by L on M's previous suggestion on what is inside her drink. Due to sound lengthening in L's response (line 1), it overlaps with M's next turn (line 2) where she suggests another fruit in the drink (lychee). L claims the next line that is almost continuous from M's TCU and provides the fruit in which she pronounces /epel/ for "apple". The word seems to be pronounced three time with the last one has a drop of pitch and slight sound lengthening. Contrary to Aniq that commits error in consonant, L on the other hand has committed error in the vowel production. This rather uncommon error may suggest L's pronunciation slip because cleft children is often to have trouble in consonant production (Prandini et al., 2011). In addition, L's cleft history which is cleft lip only suggests the phonological error is less likely to be affected by cleft (CLAPA, 2015). Following this, M can be seen to initiate repair in the next line (line 4).

From Extract 17 and 18, it is clear that phonological errors undergo resolution process through OIR when they interfere with the meaning that can cause confusion to the receiver. In other phonological errors that have been left untreated through OIR, the words still give the intended meaning for co-speaker to understand despite being pronounced wrongly.

4.2.10 Idiosyncratic

The next reason for OIR sequence to be launched is idiosyncratic. Idiosyncratic refers to odd words or phrases that are not understood by listener. This study has identified two OIR sequences that take place due to the reason of idiosyncratic. The situation is only seen in Lisa's interaction with her mother.

To highlight the situation, Extract 19 shows how Lisa (L)'s choice of phrases when she responds to mother (M)'s request causes OIR sequence to be launched.

Extract 19: I low in battery (Lisa-Mother)

1	M	bace betul betu::l *read seriously* ***read seriously***
2		jangan malas mala::s= *don't lazy* ***don't (be) lazy***
3	L	=>I DON WAN<
4	M	hm::: hhh
5	L	i don want
6		i low in battery **T-1**
7	M	LOW in battery? ((*mother looks at Lisa while Lisa maintains gaze at book; she places her head on both hands*))
8		(.)

M in line 1 gives instruction to L to read some reading material and asks her to be attentive (evident in phrase `betul betu::l`) as she was hesitant and read lazily earlier in the interaction. L then responds by saying she does not want (to read). The response seems to be strongly made due to prosodic properties of the utterance i.e. high speech volume and speech pace. M in line 4 does not respond to this verbally rather the use of filler (`hm:::`) is observed and this is followed by an exhalation suggesting hesitation towards L's response (Andersson et al., 2010). L claims the next turn by repeating her stand and this time, she gives reason for her refusal. In line 6, she said `i low in battery`. This becomes an idiosyncratic reason for OIR sequence to be launched because L is making an inappropriate excuse to their condition which is human that does not wear battery. This also shows L's attempt in using humour to find her way out from the assigned activity by M.

Another example of idiosyncratic as reason for OIR sequence is given in Extract 20. In this extract, Lisa (L) is describing bread that she had at school as "normal". The adjective that she used to describe the bread confuses the mother (M) who consequently, requests for further explanation.

Extract 20: Normal bread (Lisa-Mother)

1	M	kakak dulu suke makan ape?=
		TOA before like eat what
		kakak, before (what did you) like to eat?
2		=kalau kat skolah?
		if at school
		if at school?
3		(0.1)
4	L	kat skola::h *((Lisa withdraws mutual gaze))*
		at school
		at school
5		(.)
6		a: jap
		wait
		a: wait
7		a:::
8		(.) *((Lisa turns gaze to mother))*
9		macam roti::
		like bread
		(something) like bread
10		roti nome:l= *((mother has a frowning look))* **T-1**
		bread normal
		normal bread
11		=roti cokla::t
		bread chocolate
		chocolate bread
12		(.)
13	M	roti normel?
		bread normal?
		normal bread?
14		roti normel ma£cam mane hehhhe
		bread normal how
		how (is) normal bread

*TOA=Term of address

Line 1 and line 2 in Extract 20 show M's question to L on what food she used to like at school. L takes quite some time to answer and several dysfluency markers are observed in line 6 and 7. After a slight pause, L turns to M and says `roti nome:l` (normal bread) and continues with another `roti cokla::t` (chocolate bread) to be her favourite. As chocolate bread is common, "normal" bread on the other hand is perceived to be odd due to L's choice of adjective to describe the bread. This unsurprisingly confuses M and she in the next line (line 14) can be seen to request for explanation. Even though limitation in vocabulary is common to be observed when CL/P children grow up (see section 2.7.4), it is not reasonable to associate L's poor choice of adjective to this problem because after

corrective surgery, CL/P children are able to catch up with typical developing children in their vocabulary size (Lee, Young, Chastan & Tan, 2016).

4.2.11 Irrelevant Information

The last source of interactional breakdown between parents and their children with repaired cleft is irrelevant information in which one of the speakers provide response that is not related to topic of interaction (Philip & Hewitt, 2006). This particular source however is not common in interactional data and only occurs one time in Aiman (AMN)'s data set. Extract 21 shows the situation.

Extract 21: "Sedap" (Aiman-Mother)

1	M	yang kita pegi kedai buku tu: ((*mother and Aiman both have mutual gaze*))	
		which we go store book that	
		which we go (to) that book store	
2		ade beli tak?	
		did buy EMP	
		did (we) buy?	
3		(0.2) ((*Aiman gazes at mother, moves his seating position a bit forward and continues to eat*))	
4		ade buku nilam? ((*mother utters the question simultaneously with eating chicken; her gaze changes to the food*))	
		is there book NOUN	
		is there buku nilam?	
5		(0.2)	
6	A	seda:::p ((*Aiman looks at the mother*))	**T-1**
		delicious	
		delicious	
7		(0.2)	
8	M	dak (.) buku nilam (.) yang >bace bace<	
		no book NOUN which read	
		no, buku nilam that (is for) reading	

*EMP=Emphasis

In Extract 21, mother (M) is trying to get confirmation from AMN on *buku nilam* (Nilam book is Malaysian primary school book that self-records reading activity by students); whether they have bought the book or not. From line 1 to line 4, M continuously poses her request for confirmation. However, it does not bring any response from AMN. In line 5, it results in 0.2 second of silent. AMN in line 6 then responds to M and in fact,

brings gaze to her. He mentions *sedap* (delicious) in reference to food he is having. Clearly, this response does not conform to M's confirmation request earlier and deviates the topic of interaction. As a result, mother has to reject the response that is indicated through the word `dak` which is a commonly used short form for *tidak* (no) and continues to pose similar request she has made earlier.

It is not surprising for irrelevant information is almost non-existence (N=1) in the data set because children in this study are at their primary school age. Therefore, they have passed the language development milestone and should be able to orient to interaction similar to adult speakers. The small number also suggests the ability of children to follow topic of interaction but as highlighted in section 4.2.4, troubles happen when there is topic shift i.e. topic is extended.

4.3 Strategies for Repair Initiation

The second objective of this study is to analyse strategies employed by speakers to initiate repair when they are confronted with potential breakdowns. Specifically, the section provides strategies for repair initiation that are used by parents and children with surgically repaired CL/P.

This study adopts Philip's Clarification Request (2008) to guide the coding of repair initiation strategies. The framework has listed seven strategies which are non-specific, specific request for specification, specific request for repetition, request for confirmation, direct request, relevance request and cloze request.

From the analysis, all strategies are noted to be employed by speakers at different frequency level except relevance request. In addition, this study has identified one new strategy for repair initiation which is non-verbal in which speaker opts to initiate repair through specific gestural movement without any verbal inputs.

Table 4.2 first provides distribution of repair initiation strategies according to their types, frequency of occurrence and speakers that employ them.

No.	Repair Initiation Strategies	Family 1: Lisa		Family 2: Aiman		Family 3: Aniq		Total of Frequency
		Parents	Lisa	Parents	Aiman	Parents	Aniq	
1.	Specific request for specification	19	0	37	3	23	2	**84**
2.	Request for confirmation	8	1	18	3	16	2	**48**
3.	Non-specific (open-class repair initiators [Drew, 1997])	2	0	16	2	9	17	**46**
4.	Direct request	7	1	2	2	6	10	**28**
5.	Cloze request	7	0	3	0	5	0	**15**
6.	Non-verbal	2	0	1	3	0	0	**6**
7.	Specific request for repetition	2	0	1	0	1	0	**4**
8.	Relevance request	0	0	0	0	0	0	**0**
	TOTAL	**47**	**2**	**78**	**13**	**60**	**31**	**231**

Table 4.2: Distribution of Repair Initiation Strategies

Note:
Repair initiation strategy that is not from Philip's Clarification Request (2008)

Table 4.2 shows the frequency of occurrence or the most strategies for initiating repair employed by speakers. Comparison between speakers clearly shows parents to be in the most position to initiate repair than the children. The difference is expected because children have been identified to produce turns containing trouble source more than the parents (refer to Table 4.1). This thus results in parents to receive troubles and initiate repair more. Specifically, frequency analysis shows parents to produce 185 repair initiation turns (80.1%) across various strategies while children only construct 46 repair initiation turns (19.9%).

From the distribution of strategies, the highest employed strategy is specific request for specification that can be seen the most in parents' speech. In fact, this strategy is found to be the highest for each family. The use of non-specific repair initiator or as Drew (1997) referred to as open-class repair initiator is found to be the second most strategy employed by speakers. This strategy is found to be used by Aniq the most and Aiman's parents. Request for confirmation is also significantly employed by speakers especially the parents. This is followed by direct request, cloze request and specific request for repetition. Finally, this study has identified new strategy for initiating repair which is non-verbal. Even though the number of occurrence is small, it first serves as extension to strategies listed in Philip's Clarification Request (2008) and second, suggests possible initiation strategy that may be exclusive to context of trouble source.

The next sub-sections explains each strategy in details by using extracts that are randomly selected from data set. The focus of analysis is to highlight the strategy, identify resources for constructing initiation turn and develop possible relationship between repair initiation strategy and type of trouble source.

4.3.1 Specific Request for Specification

The most employed strategy for initiating repair is specific request for specification in which speaker requires specific additional information for the message to be understood (Yont et al., 2000). As an overview, parents employ this repair initiation strategy the most. Extract 22 first shows how the strategy is used to construct the repair initiation turn and linguistic resources that the speaker employs.

Extract 22: Curry puff (Lisa-Mother-Khalid)

1	M	kakak kenape tak suke makan karipap?	
		TOA why don't like eat curry puff	
		kakak, why don't (you) like (to) eat curry puff?	
2		*((Lisa gazes at mother))*	
3	L	tak suke	**T-1**
		don't like	
		don't like	
4		(.)	
5	M	kenape tak suke?	**T0**
		why don't like	
		why don't (you) like?	
6	L	((*Lisa smiles at mother*))	
7	K	tak seda:p	
		not nice	
		(it is) not nice	

*TOA=Term of address

In Extract 22, mother (M) begins when she seeks reason for Lisa (L) not to like curry puff (Malaysian dish) and this is expressed in question form as in line 1. The employment of term of address `kakak` as M's TCU specifically allocates the next turn to L. M proceeds with her question through question word `kenape` (why) that is used to elicit reason. L in the next turn responds with her reason for not liking the dish which is `tak suke` (don't like). As M seeks to know reason for why she does not like the food, the response from Lisa is treated to be problematic for not having the information required (inadequate information). As evident in line 3, L's response does not contain "reason" rather gives information on her not liking the food which is known to M already. This prompts for repair initiation turn in the next line (line 5).

In constructing her repair initiation turn, M re-employs the question word kenape (why) that signifies reason for Lisa's disliking. Even though the question word *kenapa* is common in formal conversation, its use still requires reason or because of something (Zaharah, 2015). This makes her repair initiation turn to be specific in what she wishes to be repaired (specific request for specification). L however does not respond to the question that results in her younger brother to interrupt and provides necessary response.

From Extract 22, the trouble in inadequate information has prompted for M to request for intended information in specific way (as in the use of question word "why"). Similarly, Extract 23 highlights similar situation when Aiman (AMN)'s use of word nanti (later) is deemed to be inadequate for mother (M).

Extract 23: When will the teacher inform? (Aiman-Mother)

1	M	kokurikulum ke ape?	
		curriculum or what	
		curriculum or what	
2		(0.2) ((*Aiman drinks water from glass; looks at mother*))	
3		suka:n ke:	
		sport or	
		or sport	
4		(0.1)	
5		baju?	
		shirt	
		shirt?	
6	AMN	nanti cikgu bagi tahu la::	**T-1**
		later TOA inform EMPHASIS	
		later teacher (will) inform	
7		((*Aiman withdraws mutual gaze at the end of turn*))	
8		(0.1)	
9	M	bile cikgu bagi tahu?	**T0**
		when TOA inform	
		when (will) teacher inform?	
10		(0.1)	
11		esok? ((*Aiman looks at mother*))	
		tomorrow	
		tomorrow?	

In Extract 23, M seeks information on AMN's school activity in the next few days. Line 1 shows M's question where she provides assumption on the activity which is

curriculum or something else. However, AMN is not responding thus leaving the interaction to a 0.2 second of silence. The silence is due to AMN's drinking of water yet he establishes mutual gaze with M that can signal his awarenss on turn being allocated to him. M then claims the next turn and assumes another activity (`suka:n`) (line 3) and later in line 5, M poses query about his possible school uniform to wear on the day of that activity. Line 6 shows AMN finally takes up the speakership role and he mentions that, it will be informed by his school teacher. He employs the word `nanti` (later) as his TCU. However, the choice of word seems to bring trouble to M because she can be seen to initiate repair in the following line after a 0.1 second pause. The word `nanti` is not specific in informing the time.

To initiate repair, M employs question word that should prompt her the required information; in this context `bile` (when) that will give information on the time (in which the teacher will inform the news related to Aiman's school activity). M also deploys keywords in Aiman's problematic turn `cikgu bagi tahu` (teacher will inform) to construct her repair initiation turn. The use of question word with keywords that are deployed from trouble source turn makes the repair initiation to be specific in what she is looking for in order to restore understanding.

Another example of using specific request for specification for trouble of inadequate information is shown in Extract 24. The extract is taken from interaction between Aniq (AQ) and his parents. In this extract, father (F) is trying to know Aniq's placement in class; his overall standing after his school examination. However, the response is treated to be problematic thus requires father to initiate repair.

Extract 24: Thirty-five (Aniq-Father-Mother)

1	AQ	<tige> be↓las= *thirteen* ***thirteen***	
2	M	=tige belas betul la:↑= *thirteen correct EMPHASIS* ***correct thirteen***	
3	F	=tige belas per? *thirteen of* ***thirteen of?***	
4		(.)	
5		dalam sek- dalam kelas berape? *in ⍉ in class how many* ***how many in class?***	
6	AQ	tige lime *three five* ***thirty-five***	**T-1**
7	F	tige puluh lime? *thrity-five* ***thirty-five?***	**T0**

The extract continues from previous turns where father (F) is asking Aniq (AQ) on his class standing after his school examination (see Extract 12). In line 1, AQ's response is recorded in which he mentions his number (`tige belas`). Line 2 shows interruption from mother (M) that confirms the accuracy of AQ's response. This can be seen through the lexical `betul` (correct) and is accompanied with particle `la` that places an emphasis to the delivered information (Goddard, 1994). Immediately in line 3, F claims the turn of speaking and seeks further information on the same topic. F can be seen to pursue for AQ's response to be more specific by asking him the total number of students in his class.

In doing so, F deploys AQ's response (`tige belas`) and constructs an interrogative turn despite not using any wh-question word. The word *per* (out of) is normally used for mathematical fraction but is also used when requiring information related to total number. In this case, F employs it as question word with rising intonation at his turn completion and this indicates specific information that he requires which is total number of students in his class. However, a short pause follows (line 4) and F continues by claiming the next turn even though his previous turn is allocated to AQ. In giving response to F, AQ

indicates the total number which is *tige lime* (35). However, the way AQ mentions the number is found to be very loose where he simply states the number separately (line 6). Hence, F initiates repair in line 7 where he specifies it with the lexical *puluh* that indicates the number to be "thirty-five" instead of "three-five".

In addition to the previous three extracts (Extract 22-24), there is also significant number of OIR sequences in which specific request for specification is employed as repair initiation strategy multiple times before repair is obtained. This refers to situation where speaker has to produce multiple repair initiation turns before speaker of trouble source gives repair. As a result, OIR sequence experiences an expansion to be beyond three turns or non-minimal OIR sequence (Kendrick, 2015). Extract 25 shows one of the situation.

Extract 25: Did I buy the book? (Aiman-Mother)

1	AMN	bukan kene beli:: ((*Aiman switches gaze to mother*)) ***no need buy*** ***no need (to) buy***	**T-1**
2		(0.4)	
3	M	kene beli la ((*mother looks at Aiman briefly*)) *need buy EMP* ***need (to) buy la***	
4		(2.3) ((*the family eats; TV sound as background*))	
5		tu ape tu yah? ((*mother makes reference to TV*)) *that what that TOA* ***what (is) that yah?***	
6		(0.3) ((*parents looks at the TV*))	
7		o:: cerite la ni: ((*mother gazes to Aiman*)) *movie EMP this* ***o:: this is movie la***	
8		(0.3)	
9	F	[°word°]	
10	M	[dak dik] *no TOA* ***no dik***	
11		(.)	
12		adik ingat dak kalau dalam jadwal ada buku nilam kan? *TOA remember not if in timetable has book NOUN isn't* ***adik, do you remember if in timetable, there is buku nilam isn't?***	

13	bahse malaysie dengan bahse inggeris *language malay and language English* ***Malay language and English language*** ((*Aiman looks at the mother; both had mutual gaze*))	
14	yang pegi pepustakaan kena tulis tu((*mother demonstrates hand writing; Aiman switches gaze to his food*)) *which go library must write the* ***the (one) which (you) go (to) library, must write***	
15	kalau bace buku je: kene tulih *if read book EMPHASIS must write* ***if read book, must write***	
16	(.)	
17	ade kan? *there is right* ***there is, right?***	**TO^1**
18	(0.1)	
19	ade mama beli tak? *have TOA bought TAG* ***have I bought?***	**TO^2**
20	mama tak perasan lak hari tu *TOA NEG notice ⍉ day that* ***I did not notice that day***	
21	(.)	
22	ade beli tak? *have bought TAG* ***have (I) bought?***	**TO^3**
23	(0.1)((*Aiman is seen to pick food from serving plate*))	
24	buku nilam? *book NOUN* ***nilam book?***	**TO^4**
25	(0.2) ((*Aiman continues to eat and he later looks at the mother*))	

*TOA=Term of address; EMP=Emphasis; TV=Television

Extract 25 begins with Aiman (AMN)'s turn that becomes a trouble source due to inaccurate information (content rejection). He claims that the school book (*Nilam* book) that he and his mother (M) are talking about does not need to be bought. M clearly knows the information is not correct (she is a school teacher) thus rejecting Aiman's response in the next line (line 3) with an emphasis particle `la` (Goddard, 1994). She instead claims the book needs to be bought (line 3). In the next few lines, the topic seems to be abandoned for a while (topic postponement) due to participants in the interaction that also includes father (F) are focusing on the lunch being served and also TV that airs supposedly a movie

at the same time. This can be seen where at one point, both parents are talking about it (line 5 to 7).

After a brief silent, M revisits the topic and begins to allocate turn to AMN through name-calling strategy (line 10 has TOA *dik*). She directs AMN's attention to his class timetable in her effort to refresh AMN's memory on the book. Even though the turn contains particle `kan` that functions to seek confirmation, AMN does not respond to M's confirmation request thus violating the system of adjacency pair. M continues her speakership role and provides detail background of the books (line 13 to 15). This is followed by line 17 when M initiates another repair to seek response from AMN by asking him question that specifies whether the book is available or not. Similarly, the particle word `kan` is placed at the end of turn and by right, should indicate turn allocation to AMN. However, M continues as AMN fails to do so and she repeats the same request by providing a more specific context. The employment of tag question that is marked through `tak` should invite AMN to give a close-ended response (yes or no). The question is also a form of specific request as it makes clear of what kind of information that the mother is pursuing from AMN. Line 22 shows a repetition of similar question due to AMN's failure to take up speakership role and in line 24, M revisits the topic that concerns *buku nilam* in her effort to obtain AMN's response.

It is clear from Extract 25 that one reason for multiple repair initiation to be made is when the initiated speaker fails to give response. Thus, M as in the extract constructs multiple repair initiation turns and employs emphasis words that also function as turn allocation unit (e.g. *kan* and *tak*) so intended information can be obtained from the desired speaker. In this example, specific request for specification is used when response from co-participants is not available.

4.3.2 Non-specific/Open-class repair initiator

Another frequently employed strategy for initiating repair is non-specific (Philip, 2008) or open-class repair initiator (Drew, 1997). This type of repair initiator is known to be a weak repair initiator due to difficulty in locating type of trouble that occurs in preceding turn (Svennevig, 2008) but mostly, speakers use these words when they are confronted with trouble in hearing or understanding (Kendrick, 2015). This study has identified a total of 46 OIR sequences containing such strategy. Extract 26 first highlights one of the sequences.

Extract 26: School bag (Aiman-Father)

1	AMN	↑n[ape mu- *why* ***why (cut-off word)***	
2	F	[beg *bag* ***bag***	**T-1**
3	AMN	ha? ((*Aiman gazes at father*))	**T0**
4	F	beg ayah tak beli lagi la: *bag TOA not buy yet EMP* ***bag, I haven't bought yet la***	
5		be↓g *bag* ***bag***	
6		((*Aiman changes gaze from fruit to his father*))	
7	F	beg skolah kan koyak? *bag school right torn* ***school bag (is) torn right?***	

*TOA=Term of address

Extract 26 begins when Aiman (AMN) tries to introduce topic of interaction through question (question word nape or *kenapa* in Standard Malay) to his father (F). However, both of them are seen to almost claim the speakership role at the same time thus resulting in overlapping speech (line 1 and line 2). F introduces topic referent beg. Following this, AMN can be seen to abandon his earlier question and proceed with repair initiation. In line 3, AMN looks at F and produces an open-class repair initiator ha with a rising intonation. Subsequently, F acknowledges the repair initiation and produces his repair

turn by employing similar key word as in the trouble source with extra information being added.

From this short extract, the employment of open-class repair initiator is characterised with rising intonation and mutual gaze between speaker who initiates repair and trouble source speaker. Even though Extract 26 can claim the problematic speech to be a result of inaudibility due to overlapping speech, close proximity between speakers can also suggest the problem of inadequacy in information especially when F introduces topic referent with one-word turn only. Hence, AMN employs the open-class word and maintains his mutual gaze with F.

Extract 27: Class money (Aniq-Mother)

1	M	tak de langsir ye tadi↓: kelas tak de langsir?	
		doesn't have curtain right just now class doesn't have curtain	
		doesn't have curtain right just now, class doesn't have curtain?	
2	AQ	huhhuh mane ade langsi:r *((Aniq looks at mother))*	
		there is no curtain	
		huhhuh there is no curtain	
3	M	ke↑ne la kan	
		must right	
		must (have) la right	
4		kutip duit kelas tak?	**T-1**
		collect money class EMP	
		collect class money?	
5	AQ	a?	**T0**
6	M	kutip duit kelas tak?	
		collect money class EMP	
		collect class money?	

Similarly, Extract 27 shows the use of open-class repair initiator a? as repair initiation strategy by Aniq (AQ). The interaction begins when mother (M) asks him with reference to her class visit where she noticed that the class does not have curtain. M puts forward this through confirmation request where she repeats the topic referent twice in one single turn that subsequently, can give emphasis (line 1). This is confirmed by AQ in line 2. He

accompanies his speech with short audible laugh at the beginning of his turn and establishes mutual gaze with M. M then continues the interaction by suggesting that the class should have the curtain. The use of emphasis word `kan` (Goddard, 1994) accompanies her suggestion. She then expands the topic by asking whether AQ and his classmates collect money that should be used to buy curtain (line 4). The expansion of topic from M seems to cause problem to Aniq (see section 4.2.4) and this is evident when he initiates repair through the employment of open-class repair word `a?` with a rising intonation in the next turn (line 5). At the same time, he maintains his mutual gaze with M. Following this, M then repeats her prior question. It can be seen that in Extract 27, M has opted to repeat the trouble source as her repair strategy. This leaves the question to what trouble AQ experiences earlier unknown.

In certain cases, parents can also be seen to resort to open-class repair initiators when they have to initiate repair from children. However, their choice of using this strategy seems to relate to problem of not receiving response from the children after being initiated earlier.

Extract 28: What do you want? (Aiman-Mother)

1	AMN	mama bukan bagi pun *TOA not allow anyway* ***you don't allow anyway***	
2	M	mama tanye kan? *TOA ask right* ***I asked right?***	
3		adik nak ape:: *TOA want what* ***what you want?***	
4		(.)	**T-1**
5		ha?	**T0**
6		((*Aiman looks at mother*))	
7	AMN	lego pastu mama kate bukan bagi pun *NOUN then TOA said not allow anyway* ***lego then you said don't allow anyway***	

In Extract 28, interaction continues from previous topic whereby Aiman (AMN) is making a complaint on his mother (M)'s disapproval of him to buy new set of toy (Lego). Line 1 shows AMN making the complaint in which he said M does not allow him to buy. In line 2, M seems to deny this instead she claims to ask at first hand. Line 2 and line 3 show M's turns that contain such speech act. The utterance is given in a format of question that seeks confirmation with the common particle `kan`. This should invite AMN's response but he fails to do so. In line 4, a short pause has occurred. M then claims the next turn and initiates using open-class repair word `ha` with rising intonation. This manages to bring AMN's gaze to her and obtain his response (line 7). From his response, it may signal that the use of this word is not to treat the trouble of hearing or understanding. Rather, this repair initiator is used by M to instead elicit response from AMN.

Extract 29 further shows similar example in which open-class repair words are used by the parents to obtain response from conversational partner.

Extract 29: Today's day (Aiman-Father-Mother)

1	AMN	ayah hari ni hari ape ni yah?
		TOA today day what this TOA
		ayah, what day is today yah?
2		((*Aiman looks at the father and raises his left hand as if pointing to TV; father does not look at Aiman*))
3		(0.1)
4	F	hai: hari ni hari ape?
		Today day what
		hai: what day is today?
5		hari cuti [hari] ape?
		today holiday day what
		today is holiday, what day?
6	M	[hmm:]
7		(.) **T-1**
8		esok skolah
		tomorrow school
		tomorrow is school
9		(.)
10		hari ni hari pe?
		today day what
		what day is today

11		((*mother asks while picking food thus not having gaze to Aiman*))	
12	F	ha?	**T0**
13		(0.1)	
14	AMN	elle::h	

Extract 29 begins when Aiman (AMN) makes query on today's day (line 1). He specifically asks his father by using TOA `ayah` (father) and `yah` (a short form for *ayah*) at the beginning and end of his turn. This makes the next turn to be specifically allocated to father (F). F successfully takes the next turn after 0.1 but instead of giving answer to AMN's previous question, F deploys Aiman's question and asks him back. It then becomes like a "test" on Aiman's consciousness on the days. F continues by adding extra information to his question that functions as a clue (line 5). M also starts to participate in the interaction and she adds further clues as evident in line 8. However, no response is recorded and M revisits the question in line 10. F then initiates repair through lexical `ha` after no response is obtained from AMN. In line 14, AMN finally responds with an interjection that seems to work as his strategy to avoid in giving answer.

Similarly, this extract has shown how open-class repair word is used to elicit response from intended speaker. It may suggest that the word can also be used as turn allocation unit that may be the practice by Malay language speakers.

4.3.3 Request for Confirmation

Another frequent strategy for initiating repair is request for confirmation. From the data set, this strategy is mostly used when speakers are given with information that can be questioned in their accuracy (content rejection) or lack of information (inadequate information). Various resources are used by speakers to construct their initiation turn within this strategy such as repeating the trouble source turn with prosodic modification or the use of emphasis words available in Malay language like *kan* or *ye ke*.

Extract 30 shows one example of situation in which request for confirmation is used as strategy to initiate repair by employing an emphasis word.

Extract 30: Two A (Aniq-Mother)

1	M	die due a	
		he two a	
		he (gets) two a	
2		ha:: die lagi la pegi tusyen sakan tu mak die hanta,	
		he even went tuition really the mother he send	
		ha:: he even went (to) tuition, the mother really send him	
3	F	ap-	
4	M	due a ye ke due a?	**TO**
		two a really two a	
		two a, really two a?	
5	AQ	due a tige a ko:↓t	
		two a three a guess	
		two a three a (I) guess	

The interaction in Extract 30 is a continuation from trouble that has occured much earlier. When mother (M) asked Aniq (AQ) earlier on his friend's examination result, AQ mentioned that his friend managed to get two As. However, M seems to disagree with this and starting from this point, line 1 begins when M repeats AQ's earlier information. She then continues to show her surprise by saying that his mother has send him to extra classes thus, it seems not possible for him to just get two As (line 2). In line 4, M initiates repair to the accuracy of information (content rejection) by employing the phrase `ye ke` with rising intonation to indicate her request for confirmation. She also places emphasis on the `due a` (two A) by repeating it twice in her repair initiation turn. This then invites AQ's information after that to be slightly modified. With this strategy, M is being specific in what information that she is having trouble with and then, requesting for confirmation. In addition, deploying keyword and framing it in interrogative form make the request for confirmation to be much specific.

Extract 31 further shows the use of emphasis word when request for confirmation is used by speaker to initiate repair.

Extract 31: Just water (Lisa-Mother)

1	M	what else?	
2		what else do you (.) <take> for recess?	
3		(0.1) *((Lisa stares at table))*	
4	L	tu je ↑la *((Lisa gazes at mother))* *that all* ***that's all***	**T-1**
5		(.)	
6		*((mother has frowning face))*	
7	M	ayer aje? *water just* ***just water?***	**T0**

Extract 31 begins when mother (M) continues from previous topic of interaction where both of them are discussing about Lisa (L)'s daily lunch at school. After explaining her drink to mother, M asks what else she is having (line 1 and line 2). L can be seen to take time before answering. She has her gaze to the table in front of her and after 0.1, she looks at M and gives her response which is `tu je la` (that's all) with reference to that particular drink only. This brings a surprise to M and it can be seen in her non-verbal behaviour (frowning look). In the next line, M employs the key word to their discussion which is `ayer` (water) that is accompanied with emphasis word `aje` (short form for *saja* that means only). The use of *aje* here can initiate more information considering L's previous response is limited. With rising intonation, it displays M's surprise on what L is having at school.

In another example of request for confirmation, addition of information to trouble source is also employed when constructing the repair initiation turn. This can be seen in Extract 32 where father (F) and Aiman (AMN) are discussing about fasting.

Extract 32: Fasting (Aiman-Father)

1	F	ayah suruh pause tak? *TOA ask fasting not* ***did I ask to fast?***	
2		((*father touches Aiman with finger*))	
3	AMN	ua↑se ((*Aiman speaks while biting mango*)) *fast* ***fast***	**T-1**
4	F	tak de ka:n? *no right* ***no right***	**T0**
5		(0.3) ((*Aiman changes gaze from TV to father*))	
6		ayah sur- ayah suruh 133ause tak? *TOA TOA ask fast not* ***did I ask to fast?***	

*TOA=Term of address

F in Extract 32 begins by asking AMN about fasting. He was suggesting earlier in the interaction that it is not necessary for AMN to perform fasting considering he is still young. In line 1, he seems to get confirmation from AMN on whether he asks him to fast. This is responded by AMN in the next line (line 2) that claims the opposite (father asks him to fast). This produces problem related to content rejection and F in the next line initiates repair by adding information that he does not ask Aiman to do so. This is performed by framing the turn in interrogative style; with rising intonation. The emphasis word `kan` is placed at the end of the turn that should also function to allocate the next turn to AMN. However, AMN fails to take up the next speakership role that results in a quite long pause. In line 6, F claims the turn and repeats his earlier question.

In requesting for confirmation, it is clear that speakers will employ necessary emphasis words such as *ke*, *aje* and *kan* with similar prosodic property which is a rise in intonation. Consequently, it gives additional function to these words; in addition to give emphasis, these words are also seen to be used as turn allocation unit and repair initiator unit.

4.3.4 Direct Request

Direct request refers to situation when speaker that has received problematic turn makes a specific repair request on specific part of the message. In doing so, speaker formulates the initiation turn to be almost instruction-giving style. Extract 33 shows the example. The extract is taken from interaction between Aniq and his mother.

Extract 33: Cikgu Asyati (Aniq-Mother)

1	M	bm cikgu sape? *Malay language teacher who* ***who is teacher for malay language?***	
2	AQ	cikgu ilya ((*Aniq looks at mother as he gives the answer*)) *teacher NOUN* ***teacher ilya***	
3	M	bi? *English* ***English?***	
4	AQ	(0.2) ((*Aniq takes his gaze away*))	
5		cikgu::: *teacher* ***teacher***	
6		(0.1) ((*Aniq scratches his nose and then looks at mother*))	
7		ashyati *NOUN* ***as(h)yati***	**T-1**
8	M	semule *Again* ***again?***	**T0**
9	AQ	<as ya ti> ((*Aniq maintains gaze at mother*))	
10	M	ok cikgu:::: agame? *Ok teacher religious* ***ok religious (study) teacher?***	

Extract 33 begins when mother (M) expresses her intention to know all of Aniq (AQ)'s school teacher. This extract generally shows the practice of question-answer between M and AQ. In line 1, M asks who his Malay language teacher is (it is acronymed as *bm* that stands for *Bahasa Malaysia*). To this question, AQ appropriately takes the next turn in line 2 and informs the name of his teacher (`cikgu ilya`). Mother continues to another subject and in line 3, M wants to know her *bi* (acronym for *Bahasa Inggeris* or English

language). AQ may have trouble at the beginning of his turn (line 4) marked through considerable pause that indicates he is taking time to answer. He also withdraws mutual gaze that he has had with M before. Such behaviour suggests his strategy to delay in giving response. In line 5, he begins the turn by having a stretch of end sound to the word `cikgu` (teacher) that indicates his thinking of the teacher's name. Then, he returns his gaze to mother and mentions the name (line 7). However, this response becomes a problematic turn for mother who can be seen to initiate repair in the following turn. The problem might be due to AQ's pronunciation of the name that is accompanied with a short exhalation of breath causing the name to be unintelligible to M. Thus, line 8 shows M's direct request for the name to be mentioned again. M employs one word `semule` (again) that specifically is used to ask for repetition when she constructs her repair initiation. Considering her position as mother and AQ is her son, it is also appropriate and acceptable for M to employ such strategy to initiate repair yet appearing like giving instruction.

In another example, similar strategy for direct request is used when speaker imposes a directive-style structure for repair initiation turn. The following Extract 34 shows the example.

Extract 34: I like to eat… (Aniq-Mother)

1	M	what do you like to eat? ((*Aniq changes his gaze to other direction*))	
2		(0.1)	
3	AQ	ha::: ((*Aniq moves his body forward and backwards; he gazes at other direction*))	**T-1**
4		(0.3)	
5	M	<i like to ea:t> ((*Aniq gazes at mother*))	**T0**
6	AQ	i like to eat ((*Aniq changes gaze to other direction*))	

In Extract 34, mother (M) begins the interaction by asking Aniq (AQ) on his favourite food. This interaction shows their use of English language as medium of instruction because M wants to improve AQ's proficiency in the language. Thus, the topic in this

interaction is a random topic picked by M because her intention is simply to get AQ to speak in English language. After posing her question in line 1, AQ indicates his struggle to give response. This can be seen in withdrawal of eye gaze and sound lengthening of his TCU. Similar behaviour has been seen in previous extract (Extract 33). In addition, there is a delay in his response that resulted in 0.3 seconds of pause. Realising AQ's struggle to give response, M initiates repair from him by giving him a suggested answer `i like to ea:t` to reply (line 5). This acts as a direct request from M for AQ to give his response and to provide it in English. Subsequently, AQ can be seen to deploy M's initiation turn as his possible repair turn.

Extract 35 shows the similar situation of direct request being used by speaker to initiate repair. This extract also shows the format of direct request that is framed within a directive speech act.

Extract 35: A bit louder (Lisa-Mother)

1	M	so what did they do (.)	
2		at the beach?	
3	L	°(word)°	**T-1**
4	M	*((mother touches Lisa's left cheek))*	
5		a bit louder	**T0**
6		(.)	
7	L	they swim	

From the short example in Extract 39, mother (M) is having an issue with Lisa (L)'s speech due to low speech volume. The beginning of the extract shows M's question on L's recent reading activity. The content refers to characters in the book. When M asks question on what the characters are doing at beach (line 1-2), L's response in the next line can barely be heard. This requires mother to initiate repair due to problem of inaudibility. In performing such action, M touches Lisa's cheek and then gives a directive speech asking her to speak louder. This direct request strategy by mother to initiate repair shows another example of employing directive speech act in constructing the repair initiation

turn. Similarly, given the dominant role of mother in parent-child interaction, it seems appropriate for them to use direct request that poses similarity to giving instruction. This may be different if children to use such strategy especially in Malay society where it can be perceived as inappropriate or being rude to parents.

4.3.5 Cloze Request

The next repair initiation strategy that is seen in the data set is cloze request. Cloze request refers to situation where speaker of the trouble source is given with specific options to repair by the repair initiator.

Extract 36: A camp (Lisa-Mother-Researcher)

1	L	this is easy::	
2		a ↑camp ((*Lisa gazes at R and moves her both hands as if to indicate a camp; she smiles*))	**T-1**
3		(.)	
4	R	a ca:mp?= ((*Lisa looks at other direction yet maintains smiling*))	**TO[1]**
5	M	=a camp?	**TO[2]**
6		a tent?	
7	R	a camp	
8	M	a::::	
9	L	hhhuhuh	

In Extract 36, Lisa (L) was asked earlier on one picture that is available in the context of interaction. L begins by making a claim that it is easy for her and immediately she gives the answer as shown in line 2. She seems to be "confident" that is marked through rise in intonation, smile with mutual gaze and movement of hands to describe a camp which is the answer. However, the answer is wrong and researcher (R) initiates the first repair by repeating her answer in question form (line4). This is followed by M who performed similar action that is indicated as second repair initiator. In addition to this, M also provides possible answer which is "a tent" in line 6 that is delivered with rise in

intonation. This becomes a cloze request strategy in which Lisa is required to simply agree or disagree to M's suggestion.

Extract 37 further shows the example of cloze request as repair initiation strategy.

Extract 41: Durian (Aniq-Mother)

1	M	petik rambutan *((both have mutual gaze))* *pick NOUN* ***pick rambutan***	
2	A	hhh	
3	M	hm makan duria::n *eat NOUN* ***hm eat durian***	
4		((*Aniq gazes away*))	**T-1**
5		kan? *right* ***right?***	
6		(0.1) ((*Aniq gazes at mother*))	
7		betul tak? *Right isn't* ***right isn't?***	**T0**
8	A	bet(hh)ul *right* ***right***	

Mother (M) in Extract 37 is suggesting some activities that Aniq (AQ) would normally do when they return to their family's hometown. Line 1 begins when M suggests one specific activity which is picking *rambutan* fruit (from tree) and this invites AQ to respond with audible breath. In line 3, M continues to claim the speaking turn by suggesting another activity which is eating durian. However, AQ can be seen to withdraw their mutual gaze and this invites M to seek confirmation from him and at the same time, to allocate next turn to him through employment of particle `kan`. Realising the turn is allocated to him, AQ returns his gaze to M but no response is recorded. After a 0.1 second of silent, M continues to claim and in line 7, she employs a more specific request (`betul tak?`) that leaves AQ with two choices for his response which is yes or *betul* or *tak* no.

Using direct request seems to benefit children as it provides easy option for them construct their turn. The strategy also can be seen to enable the interaction to progress

especially when children fail to take up speakership role. However, such strategy is seen to be common in parents' turns which could relate to their position that allows them to perform such speech act.

4.3.6 Non-verbal

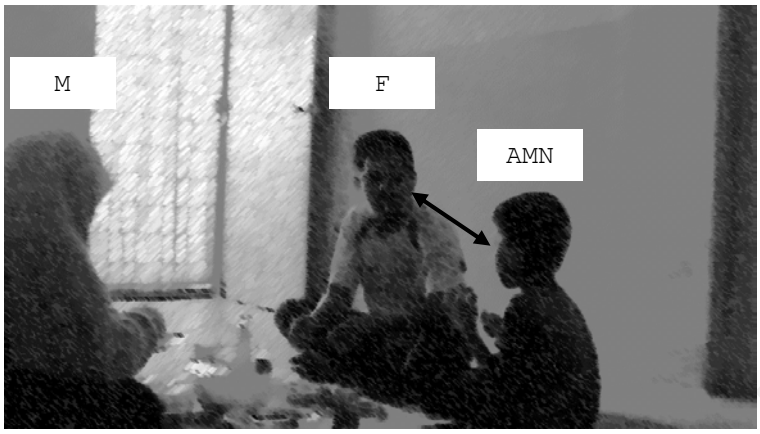
One strategy that occurs in the data set is not within the framework of Philip's Clarification Request (2008). The use of non-verbal describes situation where listener who receives problematic speech performs certain bodily action such as head movement or frowning that specifically indicates repair is required without any verbal outputs. Four OIR sequences that have non-verbal as repair initiation strategy are found in Aiman's interactional data while two OIR sequences are found in Lisa. Extract 38 shows one of the OIR sequences.

Extract 38: What did you do downstairs? (Aiman-Mother-Father)

1	M	tadi turun bawah buat ape?	**T-1**
2		(0.2) ((*Aiman and father have mutual gaze*))	
3		ha?=	
4	F	=[ha? ((*father looks at his food*))	
5	A	(([*Aiman turns to mother and nods his head up*))	**T0**
6	M	turun bawah buat pe?	

In Extract 38, the trouble occurs when mother (M) initiates new topic of interaction when the family is having their lunch. The first question as in line 1 by M does not receive any response from Aiman (AMN) thus resulting in 0.2 second of pause. Due to not receiving any response, M initiates repair through the use of open-class word `ha` that also functions to allocate turn to next possible speaker. This is similarly employed by father (F) whose turn comes immediately after M (line 4). He also uses the open-class repair word `ha`. However, F is seen to respond to M who earlier does not specify who the next speaker is. This is identified through the gaze that F brings to M. At the same time, AMN

also responds to M's earlier initiation. He looks at the mother and nods his head up to signal requisition of information. Due to this, mother repeats her earlier question. Figure 4.1(a)-(c) show the non-verbal action by Aiman.



Mother begins the topic when both Aiman and father have mutual gaze

Figure 4.1(a): Mother begins the topic

A 0.2 second of pause occurs

Figure 4.1(b): Father and Aiman share gaze

After initiation by mother (line 3), Aiman turns to mother and nods his head up and has mutual gaze with mother

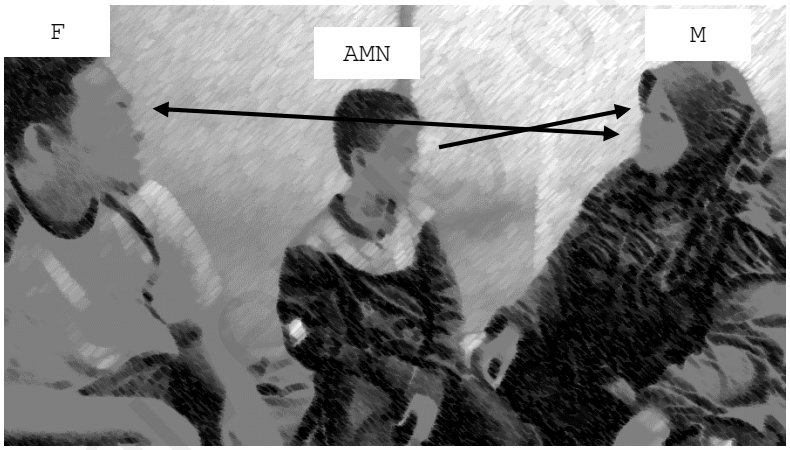
Figure 4.1(c): Aiman nods his head to mother

In another example, M also performs similar head movement when she initiates repair from AMN. This can be seen in Extract 39.

Extract 39: Yes? (Aiman-Mother)

1	AMN	*((Aiman gazes at the mother))*	**T-1**
2		(0.1)	
3	M	((*Mother nods her head up and gazes at Aiman*))	**T0**
4	AMN	(0.2) ((*Aiman turns gaze from mother to camera*))	

In Extract 39, Aiman (AMN) has a relatively long gaze at mother. He does not say anything instead of gazing at mother (line 1). After realising this, mother (M) looks at AMN and nods her head up that seems to ask if he needs anything or wants to say something (line 3). However, AMN turns his gaze away after being non-verbally initiated by M. Figure 4.2(a)-(b) show the situation.



Aiman is seen to place his gaze at mother while mother is interacting with father; both parents can be seen to have mutual gaze

Figure 4.2(a): Aiman gazes at mother

Mother turns to Aiman and nods her head up; Aiman can be seen to take his gaze away from mother

Figure 4.2(b): Mother nods her head up

4.3.7 Specific Request for Repetition

Specific request for repetition has been found to occur minimally in the data set; specifically it is seen to be employed as repair initiation strategies in four OIR sequences and only found in parents' speech. Extract 40 shows the example.

Extract 40: Twenty-three (Aiman-Mother)

1	M	juzuk brape dah? *section what already* ***what section already?***	
2		(.)	
3		ha mengaji? *reciting* ***ha reciting?***	
4	AMN	<lime puluh tige> *fifty three* ***fifty three***	
5	M	HA?	
6	AMN	due pluh tige *twenty three* ***twenty three***	**T-1**
7	M	due pluh brape? *twenty what* ***twenty what?***	**T0**
8	AMN	lime puluh tige la= *fifty three EMPHASIS* ***fifty three la***	

Interaction in Extract 40 shows mother (M) who wants to know Aiman's (AMN) current reading of Quran. This can be seen in line 1 where M specifically asks on the section he is currently at. Even though the word *juzuk* (section) is exclusively used within the context of reading Quran, mother continues in the next line after a short pause by being specific to the activity (*mengaji* reciting). Line 4 shows AMN's response that is given in slow pace of speech rate. However, the answer surprises M because it is an inaccurate number due to total section of Quran is only 30. AMN claimed to be at section 53 (line 4). After being initiated, AMN repaired with another number which is 23. This also becomes a problem to M thus repair initiation is made in line 7. In this repair initiation turn, M repeats AMN's answer and replace the problematic part (*tige* three) with a question word *berape* (contextually translated as what). The employment of question word to address the problematic part provides AMN with limited repair option i.e. *tige* or other numbers.

Similarly, the use of question word to replace problematic part in trouble source turn is also seen in mother (M)'s repetition request to initiate repair from Lisa (L). This can be seen in Extract 41.

Extract 41: This is elephant (Lisa-Mother)

1	M	ni ape ni lisa? ((*mother points to book*))	
		this what this TOA	
		what is this lisa?	
2	L	ni::: ((*Lisa looks at the book*))	
		this	
		this	
3		(0.1)	
4		this is °(word)°	**T-1**
5	M	=what is it?	**T0**
6		((*Lisa lifts the book and covers her face with the book*))	
7	L	this is e::↓(phen)	

Mother (M) begins the interaction by asking Lisa (L) on one picture in her exercise book. Upon receiving the question, line 2 shows L's attempt to answer by taking up the

next turn (line 2) with possible TCU `ni` (this) that is stretched in its end sound. This indicates L might be thinking of the answer. It also results in a 0.1 second of pause before an answer is given in line 4. In this line, L responds in English but the answer is recorded to be inaudible. Thus, M initiates repair in line 5 and the request for repetition is constructed by employing question word `what` and this successfully obtains Lisa to repeat her answer (line 7). The use of question word *what* can make L to notice the trouble M is having which relates to specific part in her earlier response.

4.4 Strategies to Repair

The third and final research objective is to identify strategies to repair after speaker is initiated to do so. The framework of Philip's Repair Response Categories is used to code strategies found in data set. A total of 12 strategies are provided by the framework but data in this study have shown the occurrence of only nine strategies.

Table 4.3 shows the distribution of repair strategies employed by speakers after they have been initiated to do so by another speaker in their collaborative effort to maintain shared understanding. A total of 200 utterances within several strategies have been identified from the data set. It is also found that not all strategies that are listed in the framework of Philip's Repair Response Categories are available in the data set.

Between speakers, children have been found to produce significantly higher repair turns than the parents. This is due to children have committed trouble source turn more than the parents. From the 200 repair turns, children have produced 153 repair turns while parents have produced 47 repair turns.

Within repair strategies, it has been identified that inappropriate repair occurs the most in the data set. Inappropriate refers to repair which has been given but does not solve the problem. This consequently causes OIR sequences to be expanded over several turns of

speaking or the topic to be abandoned resulting in unrepaired trouble. The next repair strategy that is common is repetition of trouble source. Repetition of trouble source occurs in 33 OIR sequences in which parents and children almost have similar distribution of frequency. The next common repair strategy to be used is close-ended response where speaker of trouble source opts for affirmation (yes or no) as repair response.

Addition, revision and explanation strategies are averagely seen in the data set. Similarly, cloze-response and related response are used in between 11 to 14 OIR sequences. Finally, only two OIR sequences highlight the use of keyword as repair strategy in which speaker places emphasis on specific important words while no OIR sequence is identified from the data set to highlight strategies of cue, unintelligible and interrupted.

No.	Repair Strategies	Family 1: Lisa		Family 2: Aiman		Family 3: Aniq		Total of Frequency
		Parents	Lisa	Parents	Aiman	Parents	Aniq	
1.	Inappropriate	0	4	1	19	0	16	**40**
2.	Close-ended	0	16	0	8	1	7	**32**
3.	Addition	0	5	6	5	9	6	**31**
4.	Repetition	0	5	5	3	9	8	**30**
5.	Explanation	1	3	1	5	7	3	**20**
6.	Revision	0	5	2	4	3	5	**19**
7.	Cloze-response	0	6	1	1	0	6	**14**
8.	Related response	0	0	0	5	0	5	**10**
9.	Keyword	0	1	0	1	1	1	**4**
10.	Cue	0	0	0	0	0	0	**0**
11.	Unintelligible	0	0	0	0	0	0	**0**
12.	Interrupted	0	0	0	0	0	0	**0**
TOTAL		**1**	**45**	**16**	**52**	**30**	**56**	**200**

Table 4.3: Distribution of Repair Strategies

The following sub-sections discuss each repair strategy in detail. Discussion looks at their relation to trouble source and repair initiation strategy and at the same, analyses the linguistic and non-linguistic resources employed by speakers to construct their repair turns within OIR sequences.

4.4.1 Inappropriate

Of 40 OIR sequences containing inappropriate as repair strategy, 39 of the total number is produced by children while only one is available in parents' repair turn (Aiman's parents). Inappropriate strategy is considered when repair does not resolve breakdowns that occur thus expanding OIR sequence to go beyond three-turn. Extract 42 shows one of the examples where repair given by children does not solve the trouble.

Extract 42: Ambition (Aniq-Mother)

1	M	aniq nak jadi ape::? *((Aniq turns to mother))*	
		TOA want become what	
		Aniq, want to become what?	
2	B	[b b:::	
3	AQ	[ha?	
4		hhh nak jadi ape: *((Aniq withdraws mutual gaze))*	
		want become what	
		want to become what	
5		(.)	
6		hhhhhhh tak ta°wu:°	**T-1**
		don't know	
		hhhhhhh (I) don't know	
		((*Aniq smiles and briefly looks at the mother then looks at other direction; mother maintains gaze at Aniq*))	
7	M	dah besa: nak jadi ape?	**T0[1]**
		have grown up want become what	
		(when you) have grown up, want to become what?	
8		(.)	
9	AQ	hh nak jadi::	**T+1/T-1**
		want become	
		hh want (to) become	
10		a:: ((*Aniq looks at other direction*))	
11	M	tak kan tak de cite cite?	**T0[2]**
		EMPHASIS don't have ambition	
		how come (you) don't have ambition?	
		((*Aniq directs gaze to mother and both have mutual gaze*))	

12	AQ	hahah belum ni gi£	**T+1/T-1**
		not this yet	
		not yet	
13	M	ye ke?	**T0[3]**
		is it	
		is it?	
14		bukan ke: >budak dah< >cikgu tanye daripade tadika::>	
		isn't kids already teacher ask since pre-school	
		isn't, kids, teacher already asks since pre-school?	
15	AQ	hahaha	
16	M	[cite cite an↑da:	
		ambition your	
		your ambition	
17	AQ	[hahaha *((Aniq gazes at his handkerchief and plays with it))*	
18	M	ape::?	**T0[4]**
		what	
		what?	
19		(.)	
20	AQ	huhhh	
21	M	huhuhuh	
22		(.)	
23		ha? *((mother maintains gaze at Aniq while Aniq continues to play with his handkerchief))*	**T0[5]**
24		(0.1)	
25		sekarang ni lagi dasha:t *((Aniq gazes at mother))*	
		now more pressuring	
		now it is more pressuring	
26		(.)	
27		tengok	
		see	
		see	
28		<mase sekola:h menengah pun dah ade da:h>	
		during school secondary even already has already	
		during secondary school, already has	
		ape ni?	
		what this	
		what (is) this	
29		kanival keja↑ye:: ((*mother withdraws gaze*))	
		carnival career	
		career carnival	

Extract 42 shows example of repair strategy that is considered to be inappropriate i.e. no response or avoidance of turn. The extract begins when mother (M) initiates new topic of interaction in which she makes inquiry on Aniq (AQ)'s ambition; what he wants to become when he grows up (line 1). AQ's uptake on the next turn suggests his thinking of

response; he begins with open-class word ha with rising intonation that has similar characteristic to repair initiator but he continues his speakership role by repeating M's question and giving his answer in line 6 in which he claims he does not know what he wants to become. This becomes a trouble source for M who performs repair initiation in line 7 when she repeats her question. Upon receiving this initiation, AQ successfully takes the next speakership role. However, his respond does not contain the information that is currently pursued by M. He employs M's keywords in previous line to construct his turn but this is followed with a filler (a:::) as in line 10 and withdrawal of mutual gaze.

M then performs another repair initiation strategy after realising AQ's struggle to provide answer to what can be perceived a common question among school students. In constructing her repair initiation strategy turn, M frames the turn through the strategy of accuracy check that can be seen in the phrase tak kan (loosely translated as how come). With this, AQ re-establishes mutual gaze and his response in line 12 says that he has not decided yet. This response further becomes an inappropriate repair strategy when M continues to question the accuracy of information. Line 13 and line 14 show M's third repair initiation that again is designed within the strategy of confirmation request. The employment of emphasis phrase ye ke seeks Aniq to respond with close-ended answer (yes or no) but M continues to claim the next turn by providing a background to her query. AQ responds with an audible laugh and this laughter continues in his next turn (line 17) that is found to overlap with Mr's speech. The next fourth and fifth repair initiation turns (line 18 and 23) are found to be more open rather than specific and this again does not bring appropriate respond from AQ. The question is later abandoned when M expands the topic of interaction (line 25 to 29).

Extract 42 has shown Aniq's inappropriate repair strategies that are characterised by lack and inaccurate information as well as laughter have placed mother to include multiple repair initiation turns. As a result, the topic is abandoned. Extract 43 that shows

interaction between Aiman (AMN) and his mother (M) also highlights inappropriate repair strategy by the child.

Extract 43: Fireman (Aiman-Mother)

1	M	knape suke	
		why like	
		why (you) like	
2		(.)	
3		nak jadi bombe ni?	
		want become fireman EMPHASIS	
		want (to) become fireman?	
4		(.)	
5		minat jadi bombe ha?	
		like become fireman	
		like (to) become fireman?	
6	AMN	((*Aiman gazes away from mother and moves his finger*))	**T-1**
7	M	ha? ((*mother nods her head up to Aiman*))	**T0[1]**
8		(.)	
9		bagi sebab ((*Aiman gazes back at mother*))	**T0[2]**
		give reason	
		give reason	
10		(0.1)	
11		ha nak jadi bombe	**T0[3]**
		want become fireman	
		ha want (to) become fireman	
12		(0.1)	
13		◦ha::◦	**T0[4]**
14	AMN	sebab adik suke sangat denga:n	**T+1/T-1**
		because TOA like really with	
		because adik really like with	
15		cite cite adik nak jadi bombe	
		ambition TOA want become fireman	
		my ambition, I want (to) become fireman	
16	M	>cite cite< adik memang nak jadi bombe	**T0[5]**
		ambition TOA of course want become fireman	
		your ambition of course want (to) become fireman	
17		kenape nak jadi bombe	
		why want become fireman	
		why want (to) become fireman?	
18	AMN	kene: sebab adik suke sangat a:: nak jadi bombe	**T+1**
		Ø because TOA like really want become fireman	
		because I really like a:: want to become fireman	
19	M	ye:	
		really	
		really	
20		suke sanga:t	
		like really	
		really like	

In Extract 43, M begins by seeking reason for AMN's choice to becoming a fireman. Earlier in the interaction, AMN informed M that being a fireman is his ambition. M's query spans across three lines with short pause in between (line 1-5). During these lines, both M and AMN have shared a mutual gaze. However, line 6 shows AMN to withdraw the gaze and seems to ignore question that has been posed to him. This indeed becomes a problem of no response for M thus, repair initiation is first made in line 7 through the use of open-class repair word `ha?`. After another short pause, M continues to initiate and this second repair initiation has a more specific request for what information to be given (line 9). Again, a 0.1 second of pause occurs and consequently, M has to perform another repair initiation due to unavailable response from Aiman.

The third repair initiation shows a somewhat continuation from M's second repair initiation. This turn further specifies M's request to know AMN's reason to becoming a fireman (specific request for specification). A 0.1 second of pause follows (line 12) that indicates no response from Aiman; mother claims the next turn with a less audible open-class repair word `ha` that invites Aiman to speak. This successfully makes AMN to claim the next turn and in line 14 in which he provides answer to M's question and at the same time, repair earlier trouble of no response from him by taking up the turn. However, his response does not provide information that can solve M's query. AMN specifically does not give reason for his desire to becoming a fireman. His response generally repeats his idea of becoming a fireman (line 14 and 15). Consequently, M initiates another repair by repeating AMN's earlier repair that turns into trouble source (line 18) and specifically employs question word `kenape` (why) in her effort to seek the intended response (line 17). This question has been mentioned earlier to seek reason. In line 19, AMN gives his response by saying he really likes to be a fireman. This repair seems to be similar to his earlier response in line 14. M is seen to be somewhat satisfied with the response and close the sequence with affirmation `ye` and `suka sangat` (really like).

Similar situation in which inappropriate repair is given can be seen in Lisa (L)'s interaction with her mother (M). Extract 44 shows the interaction.

Extract 44: Doughnut (Lisa-Mother)

1	M	skolah agame brape sen jual?	
		TOA how much cent sell	
		how much sekolah agame sells?	
2		(0.2) *((Lisa has a thinking look, blows her finger while mother stirs drink placed in front of her))*	
3	L	°entah°	
		don't know	
		don't know	
4		sebab dalam die tak makan	**T-1**
		because inside it NEG eat	
		because (I) don't eat inside it	
5	M	dalam die tak makan?	**T0**
		inside it NEG eat	
		don't eat inside it?	
6		(.)	
7	L	lagi satu pun suke do↓na:t	**T+1**
		more one also like doughnut	
		one more (I) also like doughnut	
8	M	donat	
		doughnut	
		doughnut	

In Extract 44, L is informing M on her usual lunch in morning school or religious school where she studies several subjects on Islam (sekolah agama). The extract begins when M asks her on the price of her usual food which is bread (line 1). Even though the next turn is specifically allocated to L, there is a 0.2 second of pause due to delays by L in giving her response. In line 3, L informs that she does not know the price and in line 4, she justifies for not knowing indicated through word sebab (because) and she says, she does not eat ingredients inside the bread. This seems to be a trouble to M for the reason of ambiguous referent and in the next line (line 5), M initiates repair by repeating trouble source with rising intonation. This should invite L to repair by explaining or giving meaning to what she said earlier. However, after a slight pause, L expands the topic of interaction by mentioning another choice for her lunch which is doughnut. This

immediately causes the earlier topic of interaction to be abandoned when L fails to repair. M then responds by repeating the keyword in Lisa's previous turn (doughnut).

From Extract 42-44, it is possible for the topic of interaction to be postponed or completely abandoned after several repair initiations do not yield intended repair from children that can restore mutual understanding. Despite using repair initiation strategy that is deemed to be specific, children still fail to provide repair.

4.4.2 Repetition

Another common repair strategy that is employed by both groups of speaker is repetition of trouble source. In this situation, speaker repeats all or part of trouble source as their repair giving strategy. The total of frequency for children's repetition as repair strategy is 16 while parents are recorded to have 14 repetition when they offer repair solution. Even though parents and children are found to commit to such strategy almost equally, the difference can be seen in the reason for this strategy to be employed. Extract 45 first shows Aniq (AQ)'s repetition as his repair giving strategy.

Extract 45: Kelas Amal (Aniq-Mother)

1	M	kelas amal?	
		TOA	
		kelas amal?	
2		bile cikgu bagitahu?	
		when TOA inform	
		when teacher informs?	
3	AQ	ha:?	
4		tak kawan bagitahu	**T-1**
		no friend inform	
		no friend informs	
5	M	ha?	**T0**
6	AQ	kawan bagitahu ((*Aniq maintains gaze at mother*))	**T+1**
		friend inform	
		friend informs	
7	M	o ye ke:: o::: kelas amal?	
		really TOA	
		o really o::: kelas amal?	

Extract 45 shows repetition of trouble source as repair strategy employed by AQ. Aniq earlier informs her mother (M) on his class placement for new school year which is `kelas amal`. Line 1 shows M's turn that seems to confirm from AQ on the class. However, she continues to claim the next turn by asking AQ when his teacher informs the news (line 2). AQ claims the next turn with what seems to be repair initiator due to employment of open-class word with rising intonation as his turn construction unit, but he continues with response in line 4. He begins with negative marker (`tak` no) to reject mother's earlier question that suggests teacher to inform the news. He proceeds by informing his friend that let the news out.

In line 5, M can be seen to initiate repair through the use of open-class repair initiator `ha?`. Following this, AQ repairs by repeating his trouble source turn. Even though his repair strategy is repetition, it manages to solve the trouble that occurs earlier when M affirms the news through phrase `o ye ke` (o really) and repeats AQ's answer. From this extract, it is possible that the use of open-class is employed by M to actually seek confirmation that the news is informed by AQ's friend.

M also is seen to employ repetition as her strategy when AQ initiates repair from her. However, repetition by M occurs when trouble that causes OIR to be launched concerns difficulty for AQ to participate in the interaction when there is topic shift. Interactional data show similar connection between repetition of trouble source by speaker when there is problem at discourse level i.e. topic is being expanded or new topic is introduced. Extract 46 and Extract 47 show the examples.

Extract 46: Weather (Aniq-Mother)

```
1   M   hari ni cuace  kat luar macam mane?
         today  weather outside    how
        today, how is the weather outside?
2       (0.1) ((Aniq looks away))
```

3		hujan ke: panas ke?	
		raining or hot or	
		raining or hot?	
4		(0.1)	
5	AQ	((*Aniq looks at mother*))pan- panas	
		Ø hot	
		hot	
6	M	pana::s? ((*Aniq maintains gaze at mother*))	
		hot	
		hot	
7		(.)	
8		tak main kat luar ke?	
		NEG play outside EMPHASIS	
		not playing outside?	
9	AQ	ta#k hhhh	
		no	
		no	
10	M	nape::?	**T-1**
		why	
		why?	
11	AQ	hm?	**T0**
12	M	nape?	**T+1**
		why	
		why?	
13	AQ	panas hhhh	
		hot	
		hot	

In Extract 46, M begins the interaction by asking AQ on the weather outside their house at the time of interaction. When AQ looks away, M continues to claim the next turn by suggesting possible answer (line 3). After 0.1 second of pause, AQ responds by saying it is hot. M then repeats AQ's response as a form of confirmation request but when no response is recorded from him, she claims the next turn by expanding the topic. She as in line 8 can be seen to ask AQ on his outside activity. Specifically, she expresses her curiosity on AQ's plan to be outside. AQ then replies `tak` (no) in which invites M to seek for a reason (line 10). This topic extension becomes a problem when AQ initiates repair through the employment of open-class repair initiator (line 11). Upon being initiated, M repeats her one-word question earlier and this manages to solve the trouble when AQ responds with reason in line 13. Extract 47 further shows similar example of situation in which repetition is used by parents when AQ is having problem at discourse level.

Extract 47: Sit with whom? (Aniq-Father-Mother)

1	M	SAPE kawan anik sape lagi?	
		who friend TOA who else	
		who (is your) friend who else?	
2		meo: lagi?	
		TOA again	
		meo again?	
3	AQ	meo?	
		TOA	
		meo?	
4	M	kawan yang anik selalu ni ↑la::	
		friend that TOA always this EMPHASIS	
		friend that you always this ↑la::	
5		raji:n bo↑rak	
		always chat	
		always chat (with)	
6		selain dengan meo tu?	
		other than TOA that	
		other than that meo	
7		(.)	
8	F	anik duduk dengan sape? *((Aniq turns to father))*	**T-1**
		TOA sit with whom	
		aniq sit with whom?	
9	AQ	ha?	**T0**
10	F	duduk dengan sape:?	**T+1**
		sit with whom	
		sit with whom?	
11	AQ	dengan sa↓pe:	
		with whom	
		with whom	

Interaction in Extract 47 begins when mother (M) asks Aniq (AQ) on his classmate; specifically who else is AQ's friend. As they were talking about his friend (*meo*) in the earlier part of the interaction, mother proceeds to suggest it is *meo* again. AQ responds to M's query by repeating his friend's name that is framed within interrogative format. This kind of speech act might indicate his thinking process or questioning the accuracy of mother's suggestion. Considering that AQ seems to perform repair initiation, M claims the next turn and provides specific information to her question. From line 4 to 6, she elaborates the question by being specific; who normally he talks to other than *meo*. After a short pause, father (F) interrupts and extends the suggestion by asking AQ on who is sitting next to him in class. AQ turns to F and responds with an open-class repair initiator (line 9). In line 10, F repeats the question before AQ attempts to answer in line 11. This

extract has shown repetition is again employed by parents when Aniq initiates repair after topic is extended. It is possible that F is treating AQ's trouble to be within understanding issue since he is not able to name other friend from the start of the sequence.

Repetition also occurs in the data set involving Aiman and his parents. Extract 48 shows Aiman's repetition strategy when he is initiated to repair.

Extract 48: Memorisation (Aiman-Mother)

1	M	cube bace surah ape yang hafaz?	
		try read chapter what that memorise	
		try (to) read what chapter that (you) memorise?	
2		(.)	
3		hafazan?	
		memorisation	
		memorisation?	
4		(.)	
5		salah satu contoh	
		one of the example	
		one of the examples	
6	AMN	tak tahu ((*Aiman withdraws mutual gaze*))	**T-1**
		NEG know	
		don't know	
7	M	tak adik hafal kan?	**T0[1]**
		NEG TOA memorise right	
		no adik memorise right?	
8		tahun empat hafal surah ape?	**T0[1]**
		year four memorise chapter what	
		year four what chapter (you) memorise?	
9	AMN	↑tak tahu ((*Aiman gazes back at mother*))	**T+1**
		NEG know	
		don't know	
10	M	ha: cube bace la sikit	
		try read EMPHASIS a bit	
		ha: try (to) read a bit la	

Extract 48 depicts situation when mother (M) is trying to get Aiman (AMN) to demonstrate his memorisation of Quranic verses which he has studied in school. In line 1, M specifically asks him to recite any verses that he can remember and this is followed in line 3 where she specifies the subject (*hafazan* memorisation). After a short pause as indicated in line 4, M gives a choice to AMN to simply recite any verse from what he has studied in school (line 5). At this point, both M and AMN have mutual gaze but when

AMN responds to M's request with rejection by claiming he does not know, the mutual gaze is withdrawn. AMN's response turns into a problematic speech for M due to accuracy of content (content rejection) when M in her repair initiation turn begins with negative word `tak` (no) as turn construction unit. She then proceeds with her request for confirmation on his memorisation and completes the turn with emphasis word `kan`. AMN upon being initiated repeats his earlier troubled turn as his repair. A slight increase in intonation is observed in this repair turn (line 9).

On the other hand, repetition as repair giving strategy is employed by M when new topic is introduced. This situation exhibits similarity to AQ's mother who also repeats trouble source turn as repair strategy. Extract 49 shows the example.

Extract 49: PTA to Nilam Book (Aiman-Mother)

1	M	kene baya:r pibg tiga puluh ringgit *need pay PTA thirty ringgit* ***need (to) pay PTA thirty ringgit***	
2		adik hari tu mama ade beli buku nilam tak? *TOA day that TOA did buy book NOUN TAG* ***adik, that day did I buy the buku nilam?***	**T-1**
3		((*mother looks at Aiman*))	
4		(0.2) ((*Aiman has mutual gaze with mother; he puts food into his mouth; he then nods his head up to mother)*)	**T0**
5		ade: kan buku nilam? *There right book NOUN* ***there (is) right Nilam book?***	**T+1[1]**
6		(0.2)((*Aiman focused on his food*))	
7		mama ade beli tak buku nilam? *TOA did buy EMPHASIS book nilam* ***did i buy buku nilam?***	**T+1[2]**
8		((*Aiman looked at mother and they both have mutual gaze*))	
9		(0.1)	
10	AMN	<ade tige buku> *has three books* ***there are three books***	

*TOA=Term of address

In Extract 49, mother (M) in line 1 is telling Aiman's father (who participated in the earlier part) on the PTA's fee for AMN's school. M is recorded to inform father on the amount which is thirty ringgit (*tiga puluh ringgit*). Immediately after this, M allocates

next turn to AMN and initiates new topic of interaction which is on *buku nilam*, a book that Aiman is using in his school. She specifically allocates the next turn through term of address `adik` and proceeds with her query which is to confirm whether the book has been bought (line 2). However, this creates a problem for AMN (problem associated to topic shift) thus he initiates repair through nodding his head up (non-verbal). Non-verbal action also creates a 0.2 second of pause during the exchange.

Consequently, M repairs the trouble by paraphrasing her earlier question to a more specific question; rather to require AMN to recall the process of buying, M simplifies the question through confirmation request whether the book is available or has been bought or not (line 5). This however does not bring response from AMN as he can be seen to focus on his food. Line 7 shows M's repetition of earlier question and AMN finally responds by saying he has three books (line 10).

Repetition of trouble source can also be seen in Lisa (L)'s turns. The employment of such strategy is also performed when speaker that receives the problematic speech initiates through the use of open-class repair initiator or specific request for specification. Extract 50 shows the example.

Extract 50: Elephant (Lisa-Mother)

1	L	this is °(e:::)°=	**T-1**
2	M	=what is it?	**T0**
3		((*Lisa lifts the book and covers her face with the book*))	
4	L	this is e::↓(phen)	**T+1**
5		((*mother brings the book down*))	

In Extract 50, Lisa (L) is telling her mother (M) on one picture in her school book. However, due to slow speech volume, mother is having trouble that is evident in her repair initiation in line 2. Upon being initiated, Lisa lifts her school book and covers her face

with it. She then repairs her earlier speech by repeating it. Even though the word is audible, but there is a notable decrease in intonation.

4.4.3 Close-ended Response

Another common repair strategy in the data set is close-ended response. Close-ended response is employed in situation where speaker that initiates repair employs request for confirmation strategy and this places speaker of trouble source to confirm through affirmative words such as yes or no. This particular strategy is found to be common strategy employed by children. Extract 51 highlights one of its occurrence.

Extract 51: Is he the one? (Aniq-Mother)

1	M	yang ta↑di sorang tu yang tinggi tu yang tinggi kurus ↓tu	
		who just now one that who tall that who tall skinny that	
		just now who that (is) tall skinny	
2	AQ	ye a:	**T-1**
		yes EMPHASIS	
		ye a:	
3	M	die la tu?	**T0**
		he EMPHASIS that	
		that is he la?	
4	AQ	hmm *((Aniq turns gaze at mother))*	**T+1**

In Extract 51, mother (M) and Aniq (AQ) are talking about one of AQ's classmates that M seems to have inquiry on whether they are referring to the same person. Line 1 shows M's description on the referred AQ's classmate; tall and skinny. AQ in line 2 confirms M's description through affirmation ye that is accompanied with emphasis a. However, M treats this as trouble source thus she initiates repair through request for confirmation whether they are referring to the same individual (line 3). AQ confirms with filler (hmm) that agrees or confirms to M's description.

Similarly, Extract 52 shows similar repair strategy employed by Aiman (AMN) when mother (M) requests for his confirmation on the correct book that they have purchased.

Extract 52: Sport right? (Aiman-Mother)

1	AMN	adik tak tanye: die lagi adoi::,	**T-1**
		TOA NEG ask him yet Ø	
		i did not ask him yet adoi	
2		(.)	
3	M	ta::k	
		no	
		no	
4		(0.2)	
5		yang hari tu?	**T0[1]**
		which day that	
		which that day?	
6		kite beli buku log log ape dik?	**T0[2]**
		we buy book log log what TOA	
		we buy log book, what log book dik	
7		(.)	
8		sukan kan?	**T0[3]**
		sport right	
		sport right?	
9	AMN	a a:: ((*Aiman remained gaze at his food*))	**T+1**

Line 1 in Extract 52 is continuation from previous topic of interaction where Aiman (AMN) informs her mother (M) that he has not asked his teacher on something to related to school's matter. AMN can be seen to exhibit a bit of discomfort to the topic through the employment of interjection `adoi`. Even though the word is commonly used to refer to accidental pain (similar to interjection ouch), this however provides different role in which AMN shows his negative reaction towards M's questioning. M then rejects AMN's response and begins her repair initiation. Line 5 and line 6 in the extract show specific request for specification where M would like to know what book have they bought. Despite this, a short pause occurs. M continues the next turn of speaking and initiates third repair initiator that is framed within request for confirmation that is marked through the use of emphasis word `kan` (right). In line 9, AMN responds with affirmation to agree to M's information in her query.

Lisa is also recorded to have a significant number of close-ended response as her repair strategy. Extract 53 highlights one of the occurrences.

Extract 53: Elisha (Lisa-Mother)

1	M	kakak jalan la: dengan fahim dengan elisha	
		TOA walk with TOA and TOA	
		kakak walk la with fahim and elisha	
2		(.)	
3		*((mother changes gaze from Khalid to Lisa))*	
4	L	elisha ↑pun kene beli ↓selua:	**T-1**
		TOA also must buy pants	
		elisha also must but pants	
5	M	a: elisha pegi beli-	
		TOA go buy	
		a: elisha goes (to) buy	
6		(.) *((mother frowns her face towards Lisa))*	**T0[1]**
7		beli selua?	**T0[2]**
		buy pants	
		buy pants?	
8		bukan die beli kain ke?	**T0[3]**
		isn't she buy cloth EMPHASIS	
		isn't she buying cloth?	
9	L	°bukan° *((Lisa maintains her gaze at mother))*	
		no	
		no	

In Extract 53, mother (M) begins the interaction by informing Khalid, Lisa (L)'s younger brother on their trip to a mall recently. Line 1 informs the situation where M informs that they bumped into their family's friend and L thus chose to walk with Elisha, her friend. L then expands the topic by informing M what Elisha is buying (pants). This is something that she also buys due to the employment of word `pun` (also). In line 5, M agrees with it but her turn is cut off and she proceeds with repair initiation when she realised L's information is inaccurate. M begins by having a frowning look directed to L and then in line 7, she repeats the trouble source in question word. While L has the speakership role and should respond to the initiation, M instead claims the next turn and provides another initiation that reflects request for confirmation (the employment of `ke`) when she puts forward a suggestion that Elisha is buying something else (cloth). Following this, L responds with affirmation `bukan` (no) as in line 9.

Extract 51 to 53 have shown the use of close-ended response as repair strategy by children when they are initiated to perform repair action. It is found that such repair

strategy is used when the repair initiation is framed within the strategy of confirmation request. The repair turn is designed in one-word turn containing affirmative word that either gives response within the scope of agreement or disagreement i.e. yes or no. However, there is variety of words or sound to provide the affirmative response. The extracts have shown the "positive" affirmation can be designed through fillers *ha*, *a* or simply *hm*. In certain situation, head movement is employed to give repair within the strategy of close-ended response. Extract 54 shows the example.

Extract 54: Cranberry Juice (Lisa-Mother)

1	M	pahtu ayer dekat skolah agame beli ape?	
		then drink at TOA buy what	
		then what drink (you) buy at sekolah agame?	
2	L	hmm::: *((Lisa changes gaze from mother to other direction))*	
3		beli: maca::m	
		buy like	
		buy (something) like	
4		(0.1)	
5		cranberry::	**T-1**
6	M	cranberry ayer yang macam [tu?	**T0**
		NOUN drink which like that	
		cranberry drink which (is) like that?	
		[*((mother points to fridge nearby))*	
7	L	*((Lisa nods her head))*	**T+1**
8	M	ayer tin?	
		drink canned	
		canned drink?	
9	L	ha	

The interaction in Extract 54 captures situation where Lisa (L) and mother (M) are talking about L's drink at her school. Line 1 presents M's question to L that generally asks her what drink she buys at school. This question is responded by L with a filler that has a stretch of its end sound (hm:::) and a withdrawal of mutual gaze that may indicate a thinking process. In line 3, she continues her speakership role by starting to give answer to M's question. Line 4 indicates the occurrence of 0.1 second of silent before answer is given which is cranberry. The previous turns (line 3 and line 4) have suggested that

"cranberry" is not definite answer due to employment of phrase `beli macam` (buy like). This rather suggests drink that might be similar to what she has at school.

With this, it becomes a trouble for M (ambiguous referents) thus repair initiation is made in the next line 6. In this repair initiation turn, M performs confirmation request by making reference to drink that is available at the place of eating. This confirmation request provides L with an option to either agree or disagree but she opts to employ non-verbal that is framed as close-ended request strategy by nodding her head down indicating yes. Figure 4.3 (a-c) shows the non-verbal form of close-ended response from Lisa.

In this second, Lisa is telling her mother on the drink. She places her gaze at mother even though it is not mutual.

Figure 4.3(a): Lisa tells her mother on the cranberry-like drink

When Lisa responds, mother turns to fridge that is located nearby and confirms the drink to be similar to what they see.

Figure 4.3(b): Mother turns to fridge to confirm the cranberry drink

Lisa then nods her head while maintaining gaze at the fridge. Mother looks at Lisa when she agrees to it.

Figure 4.3(c): Lisa nods her head while looking at the drink

4.4.4 Addition

The next repair giving strategy is addition. This strategy refers to situation in which speaker of trouble source adds information to previous problematic turn after being initiated. Other than Lisa's interaction, parents are found to employ this strategy more than the children i.e. Aiman and Aniq. Extract 55 shows one of the situation where addition is used as repair giving strategy.

Extract 55: Read la (Aiman-Mother)

1	AMN	°die macam surah (word)° *it like chapter* ***it is like chapter***	
2	M	hm bace la *read EMP* ***hm read la***	**T-1**
3		(0.2)	
4	AMN	tak kan nak bace sampai habis *NEG EMPHASIS must read until finish* ***must (I) read until finish***	**T0**
5	M	bace sikit je *read bit just* ***just read a bit***	**T+1[1]**
6		lime ayat ((*Aiman gazes away from mother*)) *five verse* ***five verses***	**T+1[2]**
7	AMN	((*Aiman is reciting Quranic verse*))	

Extract 55 begins with a continuation from previous topic of interaction where Aiman (AMN) is telling her mother (M) on several Quranic chapters that he studied in school. However, line 1 indicates his struggle to recall specific name of the chapter ("surah") rather he describes it to be like something. M in line 2 instead asks him to just recite it. When mother makes this request, it becomes a problem to AMN as he assumes the request is for him to read until the end of it which might be long. Thus, line 4 presents AMN's repair initiation that requests for confirmation from mother whether he should read all verses in the chapter. M then adds information by being specific on the number of verses; line 5 shows the request is only for a part of the chapter while in line 6, M asks AMN to read five verses. This then manages to get AMN to perform the requested action (line 7).

The use of addition by M in Extract 55 relates to trouble of inadequate information. The first request made by M seems to be general where it lacks specific requirement for action to be performed by AMN. After being initiated, M adds the specific information and this results in a clear request for AMN to progress the interaction. It can also be seen from the extract that when M adds information to trouble source turn, the keyword `bace` (read) is repeated. This keyword reflects the whole idea of the requested action. Similarly, Extract 56 shows AMN's addition for his repair giving strategy when he is initiated by his parents following a problematic speech. The extract again connects the problem of inadequate information to addition as possible repair strategy.

Extract 56: Running Man (Aiman-Father-Mother)

```
1    M   ape die running man tu?
         what it     NOUN    that
         what is it, that running man?
2  AMN   nak masuk ((Aiman leans his body forward))
         want enter
         (I) want (to) enter
3        running man
4    M   ye la yang running <ru:nning> man tu   ape
         die?
         yes   which                NOUN   that what it
         yes la, that running man what is it?
5        (.)
```

6		rancangan die tu? ((*Aiman gazes at TV*)) *show the* ***the show?***	
7	AMN	belari ((*Aiman looks at mother*)) *running* ***running***	**T-1**
8	M	berlari je? *running just* ***just running***	**T0**
9	F	huhhh	
10	AMN	a:: koyak tag name *tear tag name* ***tear name tag***	**T+1**
11		(.)	
12	M	koyak tag name? *tear tag name* ***tear name tag***	
13		(.)	
14	F	koyak tag la:: *tear tag* ***tear tag la***	
15		tarik name belakang= *pull name back* ***pull name (tag from) back***	

Extract 56 exemplifies the use of repetition as repair strategy when the trouble that launches the OIR sequence relates to issue of inadequate information. In the extract, AMN is telling his mother on his favourite TV show which is "Running Man", a Korean game-show that is aired in Malaysia. Line 1 shows the query made by mother (M) when she asks AMN on what the show is about. Following this, AMN expresses his intention to participate in the show as his response to M's question. Clearly, the response is inappropriate and does not answer M's query and lines 4-6 show repair initiation by M. In these lines, M specifically asks what the show is about through revision on the earlier question and specific request for specification as in line 6. This successfully gets AMN to inform M on the show which is `berlari` (running).

However, AMN's response is again treated to be problematic. This is due to inadequate information that can sufficiently make M to get a clear idea on the show. Hence, M performs another repair initiation that is framed within the strategy of request for confirmation by repeating Aiman's problematic speech with emphasis word `je` (*just*).

The word also functions to signal M's surprise that it is impossible for the show to be "just" about running. There is a small audible laugh from father (F) before AMN repairs the trouble. In his repair turn (line 10), AMN adds information by mentioning another activity that describes the show which is `koyak tag name` (tear name tag). M seems to experience another problem due to probably lack of information but consequently, F performs the next repair solution by explaining AMN's response in detail (other-initiate other-repair).

Addition as repair giving strategy is also employed by Aniq and his parents. The total number of addition is 14 in which parents exhibited nine examples while remaining five is produced by Aniq. Extract 57 shows example of addition employed by Aniq.

Extract 57: Favourite food (Aniq-Mother)

1	M	slalu makan kat kedai oder ape?	
		usually eat at restaurant order what	
		usually at restaurant what (do you) order to eat?	
2		((*Aniq gazes at mother and responds*))	
3	AQ	ha:: (.) nasi:: a:: (0.1) nasi ntah banyak a	**T-1[1]**
		rice rice unsure a lot	
		ha rice a rice, not sure a lot a	
4	M	sebut je	**T0[1]/T-1[2]**
		mention just	
		just mention	
5	AQ	ha? ((*Aniq briefly looks at mother*))	**T0[2]**
6	M	sebut je:	**T+1[2]**
		mention just	
		just mention	
7	AQ	tomyam nasi goreng kampung	**T+1[1]**
		COMMON NOUN (FOOD)	
8		(0.6) ((*Aniq maintains gaze towards other direction*))	
9		hm:	

Extract 57 begins with mother (M) that expresses her interest to know what kind of food AQ always has when the family eats outside. Line 1 shows the question from M and line 3 provides AQ's responses. AQ's turn begins with a stretched filler `ha` that enables him to hold the turn and this is followed by a short pause. AQ then gives his answer which

is nasi (rice) and he also produces this with a stretched of end sound with another filler after that. The stretching of sound might indicate he is not sure of his responses or he is thinking of the food he usually has. This is confirmed at the end of his turn where he claimed to be not sure due to many to choose from. Following this, M initiates repair by asking him to specifically mention the foods. The initiation by M is made due to inadequate information in previous turn (line 3) that does not entirely answer M's question.

When AQ receives M's initiation, he produces an open-class repair initiator thus placing M to repair in the next turn in which M repeats her request (line 6). This in fact forms an insertion sequence within the overall sequence whereby it consists of complete structure of an OIR. After M's repair, AQ is able to list the food the he usually has such as *tomyam* and *nasi goreng kampung*. The next part of interaction indicates a long pause (0.6 seconds) and withdrawal of mutual gaze from AQ. Addition by AQ is performed when he does provide sufficient information that causes breakdown to occur between him and his mother. M then pursues his specific response that requires him to add to his original utterance.

In another extract, M can also be seen to use addition as repair strategy after being initiated by AQ. The interaction is shown in Extract 58.

Extract 58: Grandmother's name (Aniq-Mother)

1	M	°hm° nenek ade nenek?	
		grandmother have grandmother	
		hm (you) have grandmother?	
2	AQ	ade hh	
		have	
		(yes I) have	
3	M	sape name nenek? ((*Aniq withdraws mutual gaze*))	**T-1**
		what name grandmother	
		what (is) grandmother's name?	
4	AQ	ha::	**T0**
5	M	nenek seblah (.) ayah	**T+1**
		grandmother side father	
		grandmother (from) father's side	
6		(0.1)	

```
7   AQ  ((Aniq looks at mother))   ntah    tak tahu
                                  don't know NEG know
                                  don't know
```

Extract 58 shows addition as repair strategy by mother after she is initiated by Aniq during the course of interactional breakdown. In the extract, M is getting AQ to know his family members. M asks whether his grandmother is still alive (line 1). In line 2, AQ appropriately responds with a short audible breath at the end of his one-word turn. M then expands the topic by asking the name of his grandmother. This however causes AQ to withdraw gaze and initiate repair in the next turn (line 4). However, the repair initiator by AQ seems to indicate his thinking process. The open-class repair word ha is produced with a stretched of end sound and slightly monotone. M subsequently repairs in line 5 where she adds information to her previous question by being specific of which grandmother she is referring to. This manages to get response from AQ in which he claims to not know (line 7).

In general, Extract 58 has shown that the addition as repair strategy is again employed when there is a problem of inadequate information. On the contrary, the repair initiation strategy is different from previous examples, whereby open-class repair word is used here rather than a more specific strategy such as request for confirmation or specific request for specification.

Lisa also uses addition as one of her repair strategies. Extract 59 shows the occurrence of situation.

Extract 59: Long sleeve (Lisa-Mother)

```
1   M  sebab ape die tak jadi beli baju:: a::
          why    she  cancel  buy  shirt
       why she cancels buying (the) shirt a
2      pbsm?
       TOA
       red crescent society?
3   L  pendek                                    T-1
       short
       short
```

4		(.)	
5	M	pendek ape?	**T0**
		short what	
		what short	
6	L	pende::k	**T+1[1]**
		short	
		short	
7		lengan die *((Lisa touches her sleeve))*	**T+1[2]**
		sleeve her	
		her sleeve	
8		nak panjang	**T+1[3]**
		want long	
		(she) wants long	

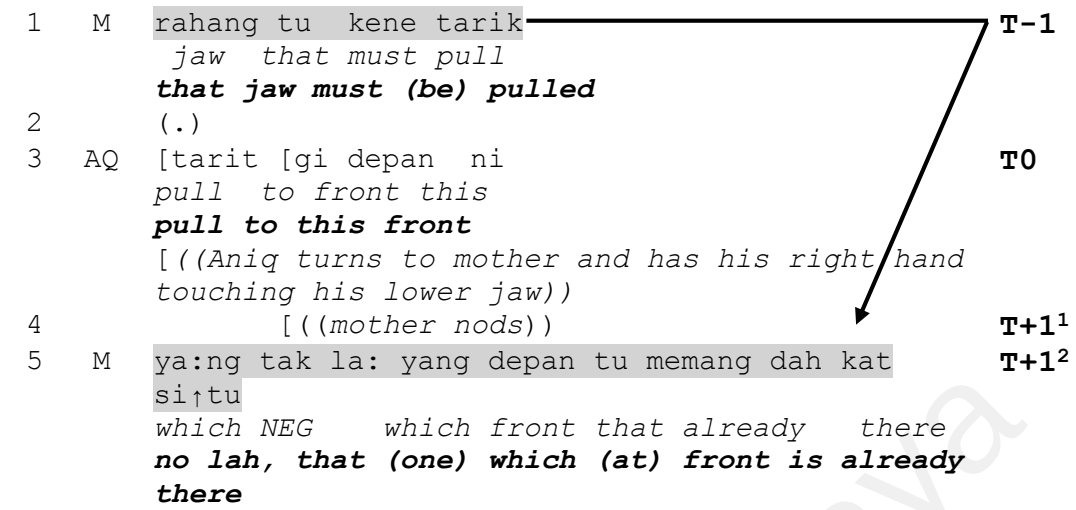
In Extract 59, Lisa (L) and her mother (M) are having an interaction about her school uniform. L informs M that one of her friends has cancelled from buying the uniform (*pbsm* Red Crescent society). Following this, M seeks the reason for it from L (line 1). L then responds by saying pendek (short) in line 3. This creates a problem of inadequate information for M thus she initiates repair in the following turn (line 5). She specifies what kind of information she requires through the use of specific question word apa (what). L then repairs by repeating her trouble source turn first (line 6). In line 7, she further adds information to give meaning to pendek which is the sleeve and this addition is accompanied with gestures where L touches her arm to specify the information.

The extract in which Lisa employs addition as repair giving strategy further connects the strategy to the problem of inadequate information. M also specifies the trouble that she is experiencing and this has further enhanced the strategy of addition to be used.

4.4.5 Explanation

Explanation as strategy for repair solution is also found to be employed by parents and children in their effort to solve troubles that have occurred. This strategy requires speaker to explain the part of trouble source that has caused problem to the listener. Extract 60 shows one example which shows mother's explanation as repair solution to Aniq.

Extract 60: Upper jaw (Aniq-Mother)



Extract 60 includes Aniq (AQ) and mother (M) who are talking about AQ's next procedure for his repaired cleft. At one point of interaction within the topic, M says that AQ's jaw will be pulled (this phrase shows strategy for M to describe the medical procedure that corrects irregularities in his jaw line to improve activities like chewing, breathing and speaking). Upon hearing this, AQ looks at M and touches his jaw. He also at the same time poses confirmation request on the jaw procedure (line 3). This thus makes M's previous turn to be treated as problematic. As a response, M first nods (line 4) and then in line 5, she provides repair solution by explaining the information that solves AQ's confusion. M starts her turn by disagreeing to AQ's confirmation request (`tak la:`). The stretch of end sound also indicates emphasis that the procedure is not like what AQ imagines. Further, M specifies through the phrase `yang depan tu memang dah kat situ`. Such explanation manages to provide AQ with understanding on matter that he has met with confusion earlier.

Explanation is also used as repair strategy when children experience difficulties to understand certain words or phrases being used. Extract 61 shows the situation where Lisa is having difficulty to know what a *gulai* (curry) is.

Extract 61: What is "*gulai*"? (Lisa-Mother-Researcher)

1	M	↓ye ke ikan bakar (.) bukan <semangkuk gulai>?	**T-1**
		is it fish grill not a bowl curry?	
		is it grilled fish, not a bowl of curry?	
2		(.)	
3	L	>gulai tu ape< ((*Lisa looks at mother*))	**T0**
		curry that what	
		what (is) that curry?	
4	M	gulai die ada kua::h	**T+1**
		curry it has gravy	
		curry has gravy	
5		(0.2)	
6	R	kari	
		curry	
		curry	
7	L	h[a:: kari:: ((*Lisa switches gaze to her book*))	
		curry	
		ha curry	
8	M	[ha::	

In Extract 61, when mother (M) uses the word *gulai* (curry) to describe a picture in Lisa (L)'s school book, it has caused confusion to L who may not know what *gulai* is. Thus in line 2, she initiates repair from M by asking what curry is. This repair initiation strategy is framed within specific request for specification. Realising the problem is related to ambiguous referents in which the term *gulai* is not understood by L, M performs repair by explaining what the food is. In line 4, M describes the feature of a *gulai* which has gravy. The explanation by M comes in the form of describing the curry due to it being the message that is not understood by Lisa. There is a silent of 0.2 second after M's explanation. Researcher claims the next turn and mentions the word *kari* that is similar to *gulai* (*kari* is common to be used in central west of Malaysia while the word *gulai* is widely used in the northern part but both terms generally refer to similar dish). With this, L affirms her understanding (line 7) and returns her gaze to exercise book.

Explanation is also used when trouble occurs due to problem relating to accuracy of content. In Extract 62, Aiman (AMN) explains to his parents on the class schedule that was questioned by mother earlier.

Extract 62: Tuition class (Aiman-Father-Mother)

1	M	selase rabu khamis je dik	
		tuesday wednesday thursday only TOA	
		only tuesday wednesday thursday dik	
2	AMN	tak	
		NEG	
		no	
3		mane ade la	
		no EMP	
		no la	
4	M	tak de bang fazli bagi ma- bagi tau mama=	
		no TOA give inform TOA	
		no, bang fazli informs me	
5	F	=die ade jadual kan=	
		he has schedule right	
		he has (the) schedule right	
6	AMN	=isnin selase rabu	
		monday tuesday wednesday	
		monday tuesday Wednesday	
7		isnin selase: khaMI:S	**T-1**
		monday tuesday thursday	
		monday tuesday thursday	
8	M	ye ke?	**T0**
		is it	
		is it?	
9	AMN	itu yang dajah empat	**T+1**
		that Ø standard four	
		that is standard four	

Extract 62 shows explanation by AMN as his repair strategy when his mother (M) initiates repair from him. In this extract, AMN and M with minimal participation from father (F) are talking about AMN's tuition class that the parents plan to send him during school holiday as preparation for his next school term. Specifically, they are trying to confirm on days of the tuition class. In line 1, M informs AMN that the class will be on Tuesday to Thursday. However, this is disagreed by AMN who makes double negation where one part contains emphasis word `la` (line 3). Mother seems to reject Aiman's response and this can be seen through the phrase `tak de` (no). She then explains that the tutor (*bang fazli* is TOA to the tutor) has informed her on the class schedule. F also confirms that there is a schedule for the class (line 5). Line 6 shows AMN's response when he suddenly mentions the days (days of the class). At first, he mentions Monday, Tuesday and Wednesday but later self-repairs to Monday, Tuesday and Thursday (line

7). This becomes a problematic turn to M who later initiates repair through confirmation request (line 8). Instead of repairing within the strategy of close-ended response due to nature of repair initiation, AMN attempts to justify by explaining that the days are for standard four students which will not be relevant to him.

4.4.6 Revision

The next repair strategy is revision. Revision includes action by speaker of trouble source to replace certain lexical or syntactic structure in the problematic turn. The number of revision as repair strategy is 20 where children are found to employ more than the parents. Extract 63 shows an example of its occurrence.

Extract 63: Many friends (Aniq-Mother)

1	M	ramai ke kawan kat kampong? *many EMP friend at village* ***are there many friends at village?***	
2	AQ	ha £sikit hhh ((*Aniq smiles; gazes at mother*)) *few* ***ha few hhh***	**T-1**
3	M	ha?	**T0**
4	AQ	ha ↑ramai *many* ***ha many***	**T+1**

Extract 63 shows example of revision strategy by AQ when he repairs breakdown that has occurred in his earlier turn. In this extract, mother (M) asks AQ on his friends at their hometown (grandparents' home). Specifically, M is trying to know whether he has many friends there. In line 2, AQ mentions that he has few friends. This turn also exhibits audible exhalation and a smile from AQ to M. This however creates problem to M which she continues by initiating repair in line 3 through open-class repair word. Following this, AQ repairs by changing his answer to the opposite where he mentions to have many friends. This revision does not involve any changes in structure but replacement of lexical that also changes the original meaning in the problematic speech. The problem that leads

to OIR to be launched might relate to issue of hearing but the change that AQ makes on his response shows his uncertainty on the information hence to revise it.

The use of revision by AQ is found to be different than his M. Revision by M is used when AQ is having an issue at discourse level thus requiring M to make changes on structure while maintaining the meaning. Extract 64 shows the example.

Extract 64: Grandmother's home (Aniq-Mother)

1	M	o:::h nak duit [je↑	
		want money only	
		oh only want money	
2	AQ	[hahhh hh	
3	M	suke tak balik rumah nenek?	**T-1**
		like NEG go back house grandmother	
		(do you) like or not to go back to grandmother's house?	
4	AQ	ha? ((*Aniq gazes away from mother*))	**T0**
5	M	*suke sebab ape?*	**T+1**
		like why	
		why (do you) like?	
6	AQ	ha? boleh main ((*Aniq briefly looks at mother*))	
		can play	
		ha can play	

Extract 64 depicts continuation from previous interaction on the same topic where M is asking AQ on his grandmother. Line 1 shows a response from mother to AQ's previous utterance that says, he likes his grandmother who is generous with him (always gives money). In line 1, M seems to make a verdictive remark that generalises AQ's fondness of his grandmother to give him money as reason to love her. AQ laughs as way of responding (line 2). Interaction continues when M poses another question within similar topic that marks topic shift (expansion). AQ is asked whether he likes to go back to her grandmother's house. AQ however treats this a trouble and initiates repair through open-class repair word. Withdrawal of gaze is also noted (line 3). Consequently, mother repairs her earlier turn by revising her earlier turn in which she specifically asks AQ for reason that is evident through the lexical choice (`sebab ape` why). Aniq then answers the question by explaining that he likes to go back because he can play.

In designing the repair turn, M can be seen to retain the keyword in her question (`suke`) and deploys it again in her repair solution turn. She replaces the less contributing lexical in the trouble source with more specific phrase (`sebab ape` as in line 5 of Extract 64) so it can bring the intended response from Aniq.

Similarly, Lisa can also be seen to replace lexical that brings confusion to her mother in her repair giving strategy.

Extract 65: Normal bread II (Lisa-Mother-Khalid)

1	L	roti norme:l= *((mother has a frowning look))*	**T-1**
		bread normal	
		normal bread	
2		=roti cokla::t	
		bread chocolate	
		chocolate bread	
3		(.)	
4	M	roti normel?	**T0[1]**
		bread normal	
		normal bread?	
5		roti normel maɬcam mane hehhhe	**T0[2]**
		bread normal how	
		how (is) normal bread?	
6	L	*((Lisa smiles))*	
7	K	ibu	
		TOA	
		ibu	
8		(.)	
9	L	roti biase: ↑je::=	**T+1**
		bread usual just	
		just usual bread	

In Extract 65, L committed a problem of idiosyncratic whereby she informs her mother that she usually takes `roti normal` (normal bread) for her lunch at school (line 1). This causes confusion to M and it can be seen when she demonstrates a frowning look. Line 3 further shows verbal repair initiation from M when she first repeats the trouble source within interrogative format and then, she specifically asks what *roti normal* is. This is followed with a small laugh from M to indicate the adjective that is used by L to describe her lunch is somehow funny or odd. There is an interruption from Khalid, L's younger

brother but his turn is not responded by M (line 7). L then repairs in line 9 where she revises her earlier turn using different lexical.

4.4.7 Cloze-response

Cloze-response as repair solution is also found to take place in the data set. This repair strategy is mostly employed by children. In this situation, children construct their repair turn by employing resources that are given as option in repair initiation turn. In other words, parents provide children with options for children to choose and consequently, resolve trouble that has occurred. Extract 66 shows one of the examples.

Extract 66: Favourite subject (Aniq-Mother)

```
1   M   mate pelajaran paling Aniq suke ape?
          subject       most  TOA  like what
        what (is the) subject that you like most?
2  AQ   hm::
3       (0.2) ((Aniq looks away))
4       sain (.) mm:: bm: >seni<                                  T-1
        science      malay art
        science, malay, art
5                                 ((At the end of turn,
        Aniq develops mutual gaze with mother))
6   M   <sain    bm  seni>
        science malay art
        science, malay, art
7       pa::ling aniq suke?                                       T0
         most    TOA  like
        most (that) you like?
8  AQ   seni ((Aniq smiles and maintains gaze at mother))        T+1
        art
        art
9   M   seni:::
        art
        art
```

Extract 66 captures interaction between mother (M) and Aniq (AQ) that are having a talk about AQ's school subjects. In line 1, M asks AQ on his most favourite subject. AQ claims the next turn with a filler (hm) and stretches its end sound that may indicate he is thinking. A 0.2 second of pause follows before he answers M's question. Line 4 shows the subjects that AQ considers as his favourite; Science, Malay language and Art. M first

repeats AQ's response but in line 7, it can be seen that mother puts forward the same question she has asked earlier. This is due to AQ's response fails to provide accurate information as M is looking for one specific subject (the employment of *paling* or most). This repair initiation thus provides AQ with an option between the three subjects that he has mentioned. Line 8 shows AQ selecting the most which is *seni* (Art) as his most favourite subject and M affirms his response in line 9. This consequently closes the OIR sequence.

Another example of cloze-response as repair giving strategy is found in the interaction between Lisa and her mother. Extract 67 shows the situation.

Extract 67: English language (Lisa-Mother)

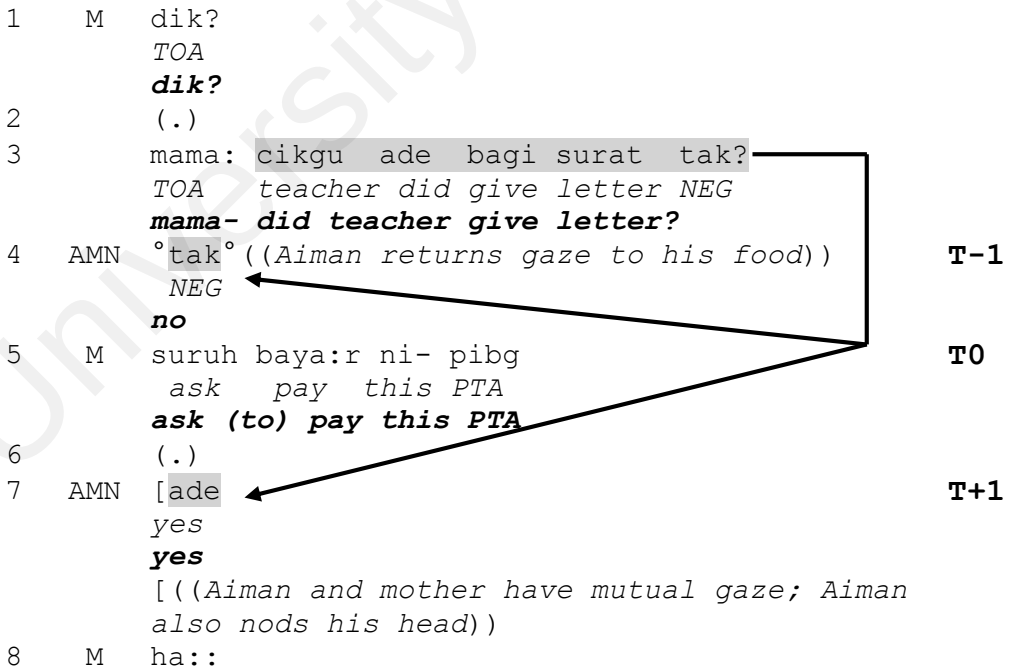
1	M	kakak nak- malam ni kakak nak ulangkaji ape? *TOA want tonight TOA want study what* ***what do you want to study tonight?***	
2		(.)	
3		((*Lisa stares at other direction*))	**T-1**
4		(.)	
5		ibu ade bawak buku *TOA do bring book* ***I do bring book***	**T0**
6		bahse ingeris? *language English* ***English language***	**T0**
7		((*Mother gazes at Lisa while Lisa continues to look at other direction*))	
8		(.)	
9	L	bahse ingeris *language English* ***English language*** ((*Lisa brings gaze to mother as she gives response*))	**T+1**
10	M	ha	

In Extract 67, mother (M) and Lisa (L) are planning on school subject that they will revise together later. Line 1 shows M's question to L where she specifically asks L on what she wants to study. However, M's question is not responded by L and she does not even develop mutual gaze with M. This becomes a trouble of no response thus M continues to claim the next turn by making an initiation that specifies information she

intends to obtain from L. Line 5 shows pre-repair initiation by mother where she informs L that she has school books with her and in the next line (line 6), she provides suggestion on subject that L can study. There is a short pause before Lisa responds with the option that mother gave earlier which is `bahse ingeris` (English language). At the end of her turn, she develops mutual gaze with M that can function as affirmation of her response. This extract has shown that the OIR sequence occurs when L ignores M's turn allocation thus placing M to initiate L to participate. In order to do that, she makes her query more specific by giving example (in the case of extract 71). L then treats this suggestion by M as option for her response.

Another example is seen in Aiman's interaction with his mother. Option is given in the form of question that shows similarity to previous extracts. Extract 68 shows the situation.

Extract 68: PTA letter (Aiman-Mother)



Extract 68 further shows cloze-response as repair strategy by children when they are initiated to repair. In this extract, mother (M) is trying to get information from Aiman

(AMN) on an expected letter to be given by school with regards to the payment of PTA. After specifically allocating turn of speaking to AMN through term of address *dik* (line 1), M begins to ask him on the letter. However, the question is designed to be general due to unspecified information on what kind of letter. AMN however responds in the next line (line 4) with a negation but the response is produced with reduced voice and withdrawal of mutual gaze. M seems to reject the answer and continues to make her query. She continues by being specific on what kind of letter that she is referring to (line 5). With information being specific, AMN produces an opposite response by claiming to have the letter. He constructs his one-word turn using option from question in previous turn (line 3). The verbal response is also accompanied with mutual gaze and head movement i.e. nodding of head. This convinces M that later affirms in the next line.

4.4.8 Related Response

A small number of repair within the strategy of related response also occurs in the data set. Related response refers to repair turn that has relevant information to trouble source but does not entirely solve the trouble. This usually causes multiple repair initiation to be made by the speaker who initiates repair. The distribution of related response has shown a total of 10 OIR sequences take place in interaction with Aiman and Aniq while Lisa has employed one related response strategy (N=1). Extract 69 shows one of the example.

Extract 69: Malay and English (Aiman-Mother)

1	M	ade tak mama beli?
		did NEG TOA buy
		did I buy?
2		(.)
3		buku nilam?
		book NOUN
		nilam book?
4		(.)
5		[due buku nilam
		two book NOUN
		two nilam books

6		[((*Mother accompanies her verbal with fingers indicating two*))	
7	AMN	↑O:::H= ((*both mother and Aiman have mutual gaze; Aiman starts to sit straight and faces directly to mother*))	**T+1/T-1**
8	M	ade beli tak? did buy NEG did i buy?	**T0**
9	AMN	bm dengan bi *malay and English* ***malay and english***	**T+1/T-1**
10	M	ha ade beli tak? *did buy NEG* ***ha did I buy?***	**T0**
11	AMN	((*Aiman moves his head signalling no*))	**T+1**

The interaction in Extract 69 is a continuation from previous topic whereby mother is trying to get confirmation from AMN whether the book ("Buku Nilam") for his school has been bought. Line 1 to line 4 show M's continuous repair initiation for AMN to take up turn in the interaction but to no avail. The initiation moves from general to specific request. In line 5, mother further specifies the request by mentioning that there are two books and this is accompanied with gestural communication in which she indicates through her fingers. Such strategy manages to get AMN to claim the next turn of speaking and he indicates his awareness on the topic or the books that mother is referring to through the interjection oh. The production of such is accompanied with high pitch and sound lengthening in addition to mutual gaze. However, AMN's turn does not address mother's confirmation request; hence M further makes her query (line 8). Following this question, AMN mentions school subjects that the books will be relevant to which are Malay and English (line 9). Similarly, this information does not address the confirmation request made by M even though they are relevant to topic of interaction. In line 10, M again puts forward the question that comes after affirmation on the subject at the beginning of her turn. This then manages to get the intended response from AMN whereby he employs non-verbal as his repair solution to inform M that the books have yet to be bought (line 11).

From Extract 69, it can be seen that related response can cause OIR sequence to be extended and makes repair initiation to be multiple. Repair that is given by AMN can also be a trouble source even though it is relevant to context of interaction. Extract 70 shows another example of related response that has occurred in Aniq's interaction with his mother.

Extract 70: Workshop (Aniq-Mother)

1	M	=tak cikgu anik tu: cikgu kh?	
		no TOA that teacher NOUN	
		no your teacher is KH teacher?	
2	AQ	ha:	
		yes	
		ha	
3	M	die tak masuk-?	
		he NEG enter	
		he does not enter?	
4	AQ	tak die selalu buat kat bengkel	**T+1/T-1**
		no he always do at workshop	
		no he always (has class) at workshop	
5	M	ye la die tak masuk kelas?	**T0**
		yes EMP he NEG enter class	
		yes la, he does not (get into) class?	
6	AQ	masuk ta hari ↓ya:ng	**T+1/T-1**
		enter Ø day which	
		enter, day which	
7		*((Aniq gazes at mother))*	
8	M	bengkel >hari hari< ke ade?	**T0**
		workshop everyday EMP has	
		has workshop everyday?	
9		(.)	
10	AQ	tak ↑e::h ha ↓due hari kot due hari seminggu:	**T+1**
		NEG two day guess two day a week	
		no eh ha two days (I) guess, two days a week	

Similarly, multiple repair initiations are employed by mother (M) in Extract 70 when Aniq (AQ)'s repair turns do not solve the trouble even though information is within the topic of interaction. This interaction begins when M is asking AQ on who is in-charge of taking attendance in his class. When AQ informs it is his class monitor, M questions whether his class teacher gets into class every day. In line 1, mother requests for confirmation on his class teacher is teaching KH that stands for *Kemahiran Hidup* (Living

Skills). AQ appropriately responds with agreement through filler `ha`. Then, M continues to request for confirmation by asking whether he does not get into class (line 3). This makes AQ to explain that the teacher usually conducts his class at workshop instead of classroom.

However, M treats AQ's explanation as problematic as the response does not address M's original query. M again repeats her question and this turn is constructed through the employment of emphasis phrase *ye la* at the beginning. This is shown in line 5. In line 6, AQ provides his repair that should serve as an answer to M's question. It can be seen at the beginning of his turn where AQ provides suitable answer (*masuk*) which by right should close the OIR sequence. However, the following phrase that AQ adds to the turn may cause it to be another problem. Line 8 shows another repair initiation by M when she requests for confirmation on the KH class schedule. Again, AQ repairs by attending to mother's request for confirmation and this third repair finally manages to satisfy the trouble and closes the sequence.

4.4.9 Keyword

Final repair strategy that occurs in data set is keyword whereby speaker of trouble source repeats and places emphasis on word that may have caused the trouble. The employment of keyword is not significant in the data set; each child is recorded to have one repair solution within this strategy while Aniq's parents have been recorded to have one occurrence of keyword in their repair giving strategy. Extract 71 shows the first example.

Extract 71: A shelf (Lisa-Mother)

```
1   L   another (skipng)
                skipping
2       a shell
3       a nest
4       a plag
          flag
```

```
5        (0.1)
6    M   ok:: an:::
7    L   >a plate an a hand< hhh flo↑we::rs                T-1
8    M   an a?                                             T0
9    L   a shelf °shelf°((Lisa demonstrates with hand      T+1
         gesture but maintains her gaze at the book))
```

The interaction in Extract 71 shows the use of keyword as repair strategy by Lisa. In this extract, mother (M) is monitoring Lisa (L)'s reading activity. Lisa is reading a text or list of words in her exercise book aloud. Line 1 to line 4 show the words that L is reading. After 0.1 second of pause, M claims the next speaking turn that generally exhibits instruction for L to continue reading. L appropriately responds by continuing her reading in line 7 but there is a modification on the prosodic property whereby the words are read in fast pace. This is followed by an audible exhalation before word `flowers` is mentioned in a rather odd way; there is an increase in volume in the middle of word and the end sound is stretched. In line 8, M initiates repair that might be due to mishearing thus she specifically asks for certain words to be repeated. As a response, L responds in line 9 with repair that utilises keyword in might be trouble source turn (word that she might miss to read or mother to mishear it). In doing so, she mentions the word twice in sequence order and in addition, she accompanies it with description through hand movement.

In another example, Aiman is also seen to employ keyword as repair giving strategy when mother initiates repair from him. Extract 72 highlights the situation.

Extract 72: Scout (Aiman-Mother)

```
1  AMN  tak de  kokurikulum  sebab
          no   co-curriculum because
        no co-curriculum because
2       (.)
3       bua::t
         do
        do
4       (.)
5       buat ape tu  buat ape pe?
         do what that do  what Ø
        do what (is) that do what?
```

6		(.)	
7	M	ye la (.) kan pegi sekolah kan?=	
		yes EMP right go school is it	
		ye la, go to school right?	
8	AMN	=PENGAKAP KENE BUAT LAIN A::	**T-1**
		scout must do others	
		scout must do others (something else)	
9		(.)	
10	M	ha?	**T0**
11	AMN	pengakap	**T+1**
		scout	
		scout	
12		(.)	
13	M	o:: pengakap buat lain?	
		scout do others	
		scout is doing others?	

Extract 72 captures interaction between AMN and his mother (M) when he is informing her on his school activity i.e. co-curriculum activity. Line 1 to line 5 show AMN's attempt to inform his M that co-curriculum is cancelled for reason that AMN is having trouble to recall. Line 1 especially shows AMN is telling there is no co-curriculum but the turn is hanging because AMN fails to provide reason after the conjunction *sebab* (because). He further attempts to inform as evident in line 3 and in line 5, he puts that in question form and directs it to M to help him remember the reason. In line 7, M that is assumed to not know the reason responds to AMN's question by making a confirmation request with emphasis words (*ye la*, *kan*) that generally gives idea that he has to go to school. It appears in line 8 that AMN might remember the reason when he basically increases his volume of speech and informs M that scout must do others or something else. As this information does not relate to previous turn, it causes problem to M and she consequently initiates repair in line 10 through open-class repair initiator "*ha?*". After being initiated, AMN responds in line 11 and constructs his repair turn by employing keyword in the trouble source turn which is `pengakap` (scout). Line 13 shows mother to affirm her understanding through interjection `o::` and proceeds with confirmation request on information that is given earlier.

Extract 72 shows that the employment of keyword relates to trouble in ambiguous referents in which AMN's turn does not observe the flow of information. Even though his repetition of keyword in trouble source turn is used as repair strategy, M is still seen to initiate repair by requesting for confirmation. This extends the OIR sequence to be longer. Another example of keyword is used by AQ when he asks question to his mother.

Extract 73: Angah (Aniq-Mother)

1	M	◦nanti◦ nanti pegi lagi sekali ↑la	
		later later go again EMPHASIS	
		later go again la	
2		bawa::k (.) ap- semue ↑la	
		bring all EMPHASIS	
		bring all la	
3		anga:h angah mesti nak pegi jugak ↑tu	
		TOA TOA must want go also EMPHASIS	
		angah must want (to) go also	
4		(.)	
5	AQ	[angah balit(h) bi↑le	**T-1**
		TOA return when	
		when angah (will) return?	
		[*((Aniq turns gaze to mother))*	
6	M	ai↑ku::m ((*mother plays with her mobile phone*))	
		Ø	
7		a:? *((Mother turns gaze to Aniq))*	**T0**
8	AQ	angah	**T+1**
		TOA	
		angah	
9	M	hari rabu de↓pa:n	
		day wednesday next	
		next wednesday	

Extract 73 recorded an interaction between Aniq (AQ) and his mother (M). The extract is a continuation from previous topic where the family is planning to visit their family friend. Line 1 shows M's turn that continues the interaction where she mentions to AQ that later they will go (visit) again. M continues by saying that they will wait for everyone to get back home before they make the visit. In line 3, mother specifically says that `angah` (term of address for middle child where in this case is Aniq's elder brother) certainly wants to join the family's visit. When M raises the name of *angah*, AQ can be seen to expand the topic by asking M when the brother will get back home (from his university).

However, M changes her attention to her mobile phone when AQ makes his query. M is also recorded to utter word that is not relevant to interaction. But she continues to claim the next turn by offering a repair initiation through open-class repair word `a?` to indicate that she is aware on Aniq's question but may not get what is being asked. This is shown in line 7 of the extract. In line 8, AQ performs repair by employing keyword in his previous question which is `angah` and constructs his repair turn. Even though it is constructed within one-word repair turn, M seems to be able to provide necessary when she gives information that consequently answers AQ's previous question.

In Extract 73, M's attention that deviates from AQ to her mobile phone has caused AQ's question to be partially concentrated by her. This makes AQ's question to be a problematic turn and requires AQ to repair when M initiates repair. In Extract 74, the problem of topic shift causes problem to occur and M can be seen to employ keyword as repair giving strategy when AQ repairs through open-class repair word. Extract 74 is given below.

Extract 74: Cikgu Ilya (Aniq-Mother)

1	M	cikgu yang pa:ling aniq suke?	
		teacher that most TOA like	
		teacher that you like the most?	
2		(0.4)	
3	AQ	ha:::	
4		(0.2)	
5		cikgu ilya hh ((*Aniq looks at mother*))	
		TOA	
		cikgu ilya	
6	M	cikgu ilya:	
		TOA	
		cikgu ilya	
7		kenape cikgu ilya tu baik?	**T-1**
		why TOA that nice	
		why, (is) cikgu ilya nice?	
8	AQ	£ha?	**T0**
9		((*Aniq gazes away*))	
10	M	baik tak?	**T+1**
		nice EMP	
		nice?	
11		(0.2)	

```
12   AQ    tah    biase biase je
           not sure    regular just
           not sure, just regular (ok)
```

Extract 74 captures interaction between Aniq (AQ) and his mother (M) on his school teacher. M begins by asking AQ on his favourite teacher (line 1). There is a long pause (0.4 second) before AQ produces audible speech that confirms his participation. He begins with filler `ha` and has its end sound stretched that might suggest he is thinking. Another pause follows (0.2 second) and in line 6, AQ provides his response which is `Cikgu Ilya`. M then expands the topic of interaction by asking him the reason for Cikgu Ilya to be his favourite. The question also includes M's assumption that the teacher might be nice. However, the topic expansion causes problem to AQ and this can be seen in line 8 where he performs repair initiation through the employment of open-class repair word `ha?`. AQ also withdraws his mutual gaze with M when he finishes his initiation. Following this, M takes the next turn and provides repair where she repeats the keyword in trouble source turn and constructs the repair turn. Addition of emphasis `tak` makes the query to be more specific and directive for AQ to respond. There is another 0.2 second of pause after M's repair but AQ claims the turn and gives his answer where he says, Cikgu Ilya is just ok.

4.5 Summary

This study has set out to examine OIR sequences that happen in everyday interaction between parents and their children with surgically repaired cleft. Findings that have been obtained highlight problems that trigger OIR sequence, strategies for parents and children to initiate repair following troubles and strategies for them to repair after they are initiated to do so. In general, this study has identified children to be the speakers that cause troubles to occur more than the parents. Problems in giving sufficient information so that message can be understood and producing incorrect information or vague are evident in their

speech. This has placed parents as their conversational partners to continuously perform repair initiation. In doing so, parents are seen to deploy specific strategies that can acquire intended information from children to resolve the occurring trouble. This is different for children who are found to frame their repair initiation within strategy that is more general such as open-class and question word. As a consequence, parents must be aware on the interactional context so repair can accurately be given. Finally, contrasting strategies are also noted when both groups of speakers have to repair. While parents manage to provide repair that can immediately close OIR sequence, children significantly produce repair that is not adequate to solve the occurring troubles thus extending OIR sequence to be longer and non-economical.

With these findings in mind, the next chapter offers detail discussion by making them relevant to existing literature. The discussion focuses on the structure of OIR sequence that occur in Malay language interaction between adults and children, preference for repair initiation strategies and repair strategies to types of trouble, deployment of linguistic and non-linguistic resources that are available in the language and ability for children with history of cleft to participate in overall OIR practice. Next chapter also concludes the study.

CHAPTER 5: CONCLUSION

5.1 Introduction

This final chapter of the thesis provides conclusion to the research. It first highlights key answers to research objectives that the study has attempted to answer. Next section provides information of the contributions of this study; specifically the implications of findings to the current literature on OIR practice in parent-child interaction as well as the issue of language and linguistic ability of cleft-affected individual. Recommendations for future study are given next that also ends the thesis.

5.2 Sources of Interactional Troubles

Findings first has shown the distribution of trouble sources that cause repair initiation to be made. From the quantitative analysis, it was revealed that children significantly produced turns containing troubles more than the parents. In term of their types, most problems relate to quality of information such as inadequate information in which children provide insufficient information for the message to be understood, content rejection where the accuracy of message is questioned by the co-speakers and ambiguous referent that refers to situation when children use words or phrases that cause difficulty for parents to understand. On the other hand, two newly-identified trouble sources are identified in the data set. The types of trouble are problems following topic shift and failure to acknowledge turn allocation. These two types have been recorded to occur at high rates of occurrence (N turn taking=28 and N problems in topic shift=22). Other types of trouble source occur at moderate or low level of occurrence.

Even though this study has identified all types of trouble sources in the data, most salient sources however relate to quality of information such as accuracy, adequacy and clarity. This could actually be assocaited to reported ability of children with history of

cleft in giving satisfactory feedback during interaction (Cocquyt et al., 2012). Previous studies especially in the area of psychosocial functioning have shown the lack or restricted participation by such children in interaction and their ability to respond accurately or sufficiently to their conversational partners that consequently lead to occurrence of interactional breakdowns (Cocquyt et al., 2012; Reddy et al., 2017).

Interestingly, this study also produces similar findings on the most type of trouble sources with other studies that acquire data from children with autism (e.g. Scheeren, Koot & Begeer, 2012). Philip (2008) for example has shown autistic children to be having troubles in the problem of ambiguous referents, inadequate information and irrelevant information. Even though, cleft and autism are both different in the former being physical problem while the later relates to cognitive functioning, this similarity further strengthens the initial claim made by Nopoulos, Douglas, Langbehn and Canady (2007) that highlighted abnormal brain structure in children with isolated CLP. This suggests the impact of cleft on the growth of brain that can influence their cognitive functioning. Finding from Hardin-Jones and Chapman (2011) that shows poor performance of cleft-affected children on cognitive tests further strengthens this observation.

Despite the resemblance to most common troubles that occur in interaction involving children with cleft and autistic children, this study however identifies new sources that are not available in the existing framework by Philip's (2008). The newly identified trouble sources are seen in children's failure to follow topic shift and to take up turn once they are allocated. Problems following topic shift occur when speakers expand the on-going topic of interaction or initiate new topic. This specific move in interaction causes children with history of cleft to initiate repair thus treating the preceding turn as problematic. In addition, turn taking problem occurs during the exchange whereby children fail to claim the next speakership turn despite being allocated by their co-

speakers. As a result of this failure, interaction experiences significant delays indicated through unusual pause time.

The identification of these two trouble sources somehow confirm reported results from Frederickson et al. (2006) and Klintö (2014) that show greater difficulties for children with CLP when topic is extended or initiated. In this study, a significant number of OIR sequences are in fact triggered by these two sources. Children often initiate repair following turns from their conversational partners that either bring the topic of interaction to more elaborate discussion or when the turns introduce new topic of interaction. Detail analysis through turn-by-turn analysis also show that children are more responsive rather than assertive meaning they construct turns that act as respond to their conversational partners and maintain similar topic of interaction (Chapman et al., 1998; Frederickson et al., 2006).

5.3 Repair Initiation and Repair Solution Strategies

The next finding presents information on repair initiation strategy. Repair initiation is an important element in OIR sequence for speaker who initiates not only highlights the trouble but at the same time, requests for repair. Quantitative analysis first shows parents to be placed in the position to initiate repair significantly more than the children. This is not surprising given trouble sources are mostly found in children's speech. Given that most trouble sources are categorised within the troubles of inadequate information and ambiguous referents, repair initiation turns are framed within the strategy of specific request for specification. This occurs relatively higher than the other strategies available in the framework. On the other hand, request for confirmation appears to be the second most employed strategy and this is due to problem of content rejection where parents specifically performs confirmation check before interaction can be progressed. The employment of open-class repair words or non-specific strategy is also recorded to be

significantly high. Interestingly, children are found to produce this strategy higher than the other strategies that they are found to utilise. This study has also identified new repair initiation strategy which is non-verbal whereby speakers employ necessary body movements such as nodding up head and frowning look to initiate repair.

Finally, the third finding shows evidence on the repair solution strategies by parents and children. Quantitative distribution shows the high occurrence of inappropriate repair by children. Inappropriate repair refers to repair turn that aims to solve trouble but is unable to do so. This further requires co-speakers to treat the turn as problematic turn and initiates repair. The use of inappropriate repair extends the OIR sequence to be longer with multiple repair initiations are evident in the sequence. Other two common strategies are close-ended and repetition. Generally, these two strategies are considered less elaborate in repair turn as close-ended provides speakers who initiate with yes/no answer while repetition involves trouble source speakers to re-deploy problematic speech in the earlier turn. This strategy can pose risk as it can further extend the OIR sequence to be longer. Other repair giving strategies that are known to be more effective appear to occur at average level such as revision, addition and explanation. While three strategies from the framework were not found to take place in the data set (cue, keyword and interrupted).

5.3.1 Interconnection between Trouble Sources, Repair Initiation and Repair Solution Strategies

From the identified and analysed strategies, findings have generally shown that most problem related to hearing often require repair initiation strategy that is framed within a non-specific strategy that is commonly seen in open-class repair words such as *ha?* (Svennevig, 2008; Manrique & Enfield, 2015). Especially in the problem of inaudibility of certain lexical in trouble source turn, the deployment of non-specific repair strategy immediately launches OIR sequence. It is also noted that when non-specific repair

initiation is made, repetition of trouble source is preferred. This preference for repetition relates to general rule that speakers attempt to present diagnosis that is least complicated first (Svennevig, 2008). However, when repair that comes after initiation is made fails to solve the occurring trouble, strategy to initiate can move from non-specific to specific strategies that possess more strength in locating troubles (Svennevig, 2008).

The employment of non-specific repair initiators can be assumed to address trouble in hearing (Svennevig, 2008). This connection has been shown in this study even though the frequency of inaudibility is not much. Another strategy that is employed by parents when children have committed problem that causes hearing issue is direct request. This study has highlighted the use of direct request by parents that resembles directive speech act. In the given context of interaction, parents' directive is acceptable given their membership identity that possess more power or authority than the children (Foley, 2006). This power-assertion by parents into their repair initiation turns seems relevant due to their status as parents that have to be respected by the children especially in the collectivist society as observed in Malay people (Mofrad & Uba, 2014). Similarly, the employment of direct request to problem of hearing can result in immediate repetition of troubling lexical from children that can conclude the OIR sequence.

This study has shown that even though non-specific repair initiator is used to deal with problem of hearing, there are also significant numbers of similar repair initiation strategy when speakers deal with problem that cannot be classified as either hearing, speaking or understanding. Such situation highlights the inability of these non-specific repair words especially open-class words like *ha?*, *huh?* or *what?* to localise the trouble source. This particular finding agrees with many existing studies that have shown the weak aspect of open-class repair words in identifying types of trouble source (Drew, 1997).

On the other hand, a more specific repair initiation strategy is significantly evident to be employed when problems occur due to quality of information. For example, inadequate

information warrants the listener to employ specific type of strategy to obtain the missing information in order for the message to be correctly understood. Similarly, content rejection in which information is questioned in its accuracy often leads speaker to pose question within the format of confirmation request that specifically provides trouble source speaker to confirm the message. The employment of such strategies is found to relate to interactional context that focuses on the message rather than physical surrounding.

5.3.2 Resources for OIR Practices

Hayashi and Kim (2015) suggested the role of linguistic rule within the language to play a role during the practice of OIR. These include the grammatical resources and prosodic properties that can design OIR turns (Sidnell, 2008). This study has obtained its data in interaction of Malay language. To begin with, Malay and English which is the most studied language within OIR context (Kendrick, 2015) are grouped into two different language groups. Malay language belongs to the Austronesian family while English is an Indo-European language.

With many differences can be observed in their lexical, morphological structures and phonological properties, it is expected that OIR practice exhibits specific design through employment of linguistic resources that are available in the language. For example, placement of stress at specific part in turn can be used when speaker performs repair (Feltner, 2016) but in the case of Malay, it is not possible due to unavailability of stress in its phonetic and phonological rule (Zuraidah et al., 2008). This study has shown findings that highlight specific linguistic resources when speaker initiates repair or repairs in Malay language. Generally, it can be seen in the employment of lexical resources, prosody and non-verbal behaviour.

First, it is evident in this study that the employment of Malaysian particles such as *lah* or *la* becomes one part from overall modification made on trouble source turn. For example, *lah* when is used to design repair giving turn can perform as a discourse marker that gives emphasis to the information (Kuang, 2002). The use of these particles can come in variety of structure such as giving question as in confirmation request, making statement or refusal. Nonetheless, these specific discourse markers occur have been associated to persuasion or denoting feeling such as anger (Asmah, 1982).

On the other hand, the use of words with negative connotations such as *bukan* or *tak* with or without particle -*lah* is also evident when speakers design their repair initiation turn. For example, Aiman's parents often employ these words to begin their speaking turn as a response to preceding turns that appear to have a problem of content rejection. Through these words, they can assert their acceptance level to the information before providing their response. However, when these words are used with other particles such as -*ke* as in example *bukan ke* or *tak kan*, it appears the turn is designed as repair initiation turn that generally requests for confirmation. The position in a turn also signifies the lexical whereby *bukan ke* is usually place at the front as TCU while words that have *kan* are often placed at the back that can function as turn allocation unit.

Next, prosodic properties of repair initiation turn or repair giving turn can also signal specific interactional meaning. Among the examples of prosodic features that are evident in this study are sound stretching or lengthening, rising/falling intonation and increase/decrease in volume of speech or speech pace. In this study, certain prosodic modifications that are made on trouble source turn can give meaning to overall repair activity. For example, the repair initiation turn is often designed within interrogative format that has rising intonation. This can be seen in almost all repair initiation turns that this study has acquired. When the turns are prosodically structured as such, it allows for turn allocation to be systematic through identification of next speaker or who has the right

to speak next which in this case is the speaker that produces trouble source (Zellers & Ogden, 2013).

Children's deployment of specific prosodic features is also varied in this study. For example, Aiman's increase in volume when he claims the next speakership role is resulted from not being allocated earlier rather it signifies his interruption to his parents' speech. In one case during the interaction, Aiman is recorded to be producing turn that has high volume of speech and this is accompanied with his hand being raised. Such behaviour indicates his intention to claim the next speakership role especially in multi-party interaction to signal the competitive element (Zuraidah & Knowles, 2006).

In another salient case, children that employ open-class repair words often characterise the pronunciation through monotonous tone with sound lengthening. This especially evident in interaction involving Aniq. Detail analysis has shown that when these words are produced through such prosodic characterisation, the words immediately deviates the role to be functioning as possible turn holding unit. During this moment, speakers claim the next turn and use these open-class words as "preface" (Selting, 2000) before response is given. The lengthening of sound also indicates speakers' requirement for time to think for suitable response especially when they have to give repair. Through such strategy, the co-participants become aware that the allocated turn has been responded and will wait for the response.

The finding on monotonous intonation of open-class words highlights another interactional roles of the words. While it has been identified that turn holding unit or preface for the turn to be constructed through monotonous intonation, repair initiation is usually made through rising intonation that usually is framed within interrogative format. This comes as no surprise because many other languages also exhibit similarity in its phonetic format when these words are used as repair initiator (Dingemanse et al., 2013; Enfield et al., 2013). On the other hand, falling intonation when these words are used

indicate turn completion that also possibly ends the sequence (Zuraidah & Knowles, 2006).

In another aspect of resources during OIR sequence, the importance of specific gestures especially eye gaze is evident in the data set. Eye gaze undeniably carries specific interactional roles especially when it includes speakers that are challenged in verbal production (Manrique & Enfield, 2015). Studies that have investigated eye gaze of cleft affected individual are extremely limited but Slifer et al. (2006) have shown that establishment of mutual gaze is not an issue for cleft children as behavioural analysis has shown them to often display eye contact with their conversational partners. This particular result may be different from what the present study has found.

In this study, it is evident in many instances of OIR sequence where eye gaze movement provides distinct behavioural conduct. When children are initiated to give repair, the mutual eye gaze will be withdrawn. This situation suggests that the initiation that has been made for trouble that they have produced may shape how children behave towards repair initiation. The mutual eye gaze however is re-established when children are able to give repair to their conversational partners. Interestingly, children are able to maintain eye gaze when they are in position to initiate repair from parents. This contrasting ability that relates to their role in interaction i.e. to initiate repair or to repair indicates the interactional role of eye gaze during OIR practice. This further strengthens the function of eye gaze in the organisation of turn taking (Rossano, 2013).

5.3.3 Universal Structure of OIR Sequence

OIR represents a multitude of repair system within the methodological framework of CA. As contrast to other repair activity especially self-initiated repair, OIR requires speakers in interaction to cooperate with each other in order to restore mutual understanding (Dingemanse et al., 2015). This cooperation is observed across three basic

turns that become the distinctive structure of OIR which are trouble source turn, repair initiation turn and repair turn (Kendrick, 2015). Once trouble happens, speaker at the receiving end highlights its occurrence and requests for repair to be performed. After initiation, repair by right should be given and this consequently will close OIR sequence and bring interaction back to its original track.

This study has shown that OIR sequences are carefully constructed through these sequence of turns. With this, the findings confirm themselves to the universal principle of OIR structure (Dingemanse et al., 2014). Despite analysing OIR practice by Malay language speakers, the findings have supported that the structure that constitutes OIR is not exclusive to any specific language rather it takes unvarying format that speakers must follow. In other words, linguistic rules of any language do not shape the physical structure of an OIR sequence making it a context-free process (Egbert, 1996).

In this study, the findings have highlighted the importance of repair initiation practice to the establishment of OIR sequence. Without repair initiation, OIR is not possible to occur and this can either cause problem to be left untreated or possibility for speaker to employ other types repair practices (Dingemanse et al., 2014). Next, the repair initiation turns in this study are found to be made by speakers based on preceding turn and be relevant to conversation. The repair initiation turns suspend the on-going topic of interaction and bring back attention to turn that has caused trouble. The repair initiation turns should be constructed based on what has been said earlier to ensure the progress of OIR sequence. This in fact agrees to fundamental rule of interaction whereby speakers are required to have knowledge on what is being said (Heritage, 2012). Finally, OIR sequence should manage the responsibility of speakers to construct repair initiation turn through various formats and speakers on the other end to necessary repair so OIR is complete and helps to accomplish mutual understanding. This study has shown various strategies for speakers to employ when they initiate repair and repair. Overall, it reflects

their responsibility by taking up necessary roles to ensure the OIR sequence progresses (Dingemanse et al., 2014).

Another significant observation is the overall structure of OIR sequence. It is evident in this study that a number of OIR sequences occur within the three-turn format. However, it can also be noted in the findings that there a large number of OIR sequences that are structured beyond three turns. These sequences contain one primary trouble source that initially launches the OIR sequence and after initiation is made, the given repair is not sufficient to solve the occurring trouble thus requiring multiple repair initiations to address one or few troubles within similar sequence (Alzaidi, 2016). This finding indeed confirms to general classification of OIR structure into two which are minimal OIR sequence (three-turn format) and non-minimal OIR sequence that spans beyond three turns (Kendrick, 2015).

5.4 Implications of Findings

The implications of findings from this study can be seen in several areas; first is the theoretical implications, next is understanding on parent-child interaction with children that have history of cleft specifically or other speech predicaments in general and lastly, design of non-clinical treatment plan for children with repaired cleft.

5.4.1 Revised Analytical Frameworks

This study has been conducted to analyse the process of restoring mutual understanding between speakers through the mechanic of OIR. OIR represents one strategy for speakers to employ from the overall repair practices that are distinctive in their operation. Specifically, this study intends to highlight the reasons that contribute to the interactional breakdowns between speakers and their strategies to re-accomplish

mutual understanding. Available frameworks within existing literature have been selected to help this study achieves its objectives.

In analysing reasons for interactional troubles, this study has adopted Philip's Sources of Communication Breakdowns (2008) as its analytical framework of coding system. This framework is initially developed by Yont et al. (2000) to analyse problems in adult-child interaction. However, it has been improved through addition of several new codings as made available in Philip's (2008). Further, this study has identified two new reasons in interaction between parents and their children. Consequently, this study has revised the existing framework through this addition. The revised framework is given in Table 5.1.

Table 5.1: Sources for Interactional Troubles (Revised)

No.	Sources	Code	Explanation
1.	Content rejection	CR	The accuracy of information is questioned by listener (Yont et al., 2000)
2.	Ambiguous referents	AR	The use of vague or unclear expression by speaker to deliver information (Philip & Hewitt, 2006)
3.	Inadequate information	IAD	Message does not have sufficient information to be understood by listener (Philip & Hewitt, 2006)
4.	Irrelevant information	IRR	Information is not related to the topic of interaction (Philip & Hewitt, 2006)
5.	Inaudibility	IAU	Speaker speaks softly (Yont et al., 2000) or speech is overlapped (Philip & Hewitt, 2006)
6.	Unintelligible segments	US	There is incomprehensible part in the message (Philip & Hewitt, 2006)
7.	Phonological errors	PE	Speech sound errors such as omission, addition, substitution etc. (Yont et al., 2000)

Table 5.1, continued

No.	Sources	Code	Explanation
8.	Idiosyncratic	ID	Speaker uses odd words or phrases that confuse listeners (Philip & Hewitt, 2006)
9.	Non-verbal	NV	Gesture that is not understood by listener (Yont et al., 2000)
10.	Problems following topic shift	TS	Breakdowns that occur when another speaker in interaction expands topic of interaction or introduces new topic of interaction.
11.	Non-acknowledgement of turn allocation	TT	Speakers have problem in claiming turn of speaking after being allocated with it. This causes interaction to be paused or stopped before another speaker re-allocates turn

The revised framework does not only include two new trouble sources which are problem following topic shift (TS) and non-acknowledgement of turn allocation (TT), but it also allows for analysis that involves speakers with other difficulties. Originally, the Philip's (2008) is used to investigate repair behaviour in children with autism. As this study includes children with surgically repaired cleft, the inclusion of these two new sources can extend the usability of the framework to other types of speech disorders or typical interaction between normal parents and normal children.

In addition to extending the framework for sources of trouble in interaction, this study also extends Philip's Clarification Request (2008) through the identification of new identified strategy which is non-verbal. The revised framework is given in Table 5.2.

Table 5.2: Repair Initiation Strategy (Revised from Philip's Clarification Request)

No.	Sources	Code	Explanation
1.	Non-specific	NS	The use of interrogative words such as *huh?*
2.	Specific request for repetition	SRR	Repetition of trouble source with a part of it is replaced with question word such as what.
3.	Specific request for specification	SRS	Listener indicates specific part to be repaired
4.	Request for confirmation	RC	Repetition with rising intonation, reduction or elaboration
5.	Direct request	DR	Request for exact definition or explanation such as "what does that mean?"
6.	Relevance request	RR	Listener questions relevance of message
7.	Cloze request	CR	Request that gives two choices to speaker of trouble source
8.	Non-verbal	NVB	The repair initiation is made through selected body movement such as head nod, frown look and hand gestures. There is no verbal production to accompany such gestures.

Similarly, the revised framework that has its origin from Philip's Clarification Request (2008) has included one new coding system which is non-verbal that is found to occur in this study. The inclusion further adds comprehensive value to the existing framework. It can also include examination on interaction that involves speakers with disability in speech such as deaf or speakers within cultural norms that heavily integrate gestures into their communicative behaviour.

5.4.2 Combining Conversation Analysis with Quantitative Framework

Studies within Conversation Analysis (CA) have been known to deviate themselves from quantitative analysis that normally includes numerical data. Any representation of

statistics in the analysis seems to be non-CA because CA's procedure of analysis often is performed through close examination on turns that occur in interaction.

This study however appears to employ quantitative analysis even though a major part of its methodological framework is derived from CA-informed process. This technique is found to be aligned with many other growing CA studies that show the possibility for quantitative analysis to be combined with thorough analysis of CA (Benjamin, 2013). This study indeed has employed quantitative analysis through frequency count by presenting the distribution of trouble source, repair initiation strategy and repair strategy. Later, the analysis is combined with qualitative analysis that is the heart of CA by performing sequential analysis i.e. turn-by-turn examination. By using quantitative analysis, this study can offer the evidence on occurrence of OIR occurrence in parent-child interaction.

5.4.3 Understanding Interaction with Repaired Cleft Children

Parent-child interaction within Malay society has not been widely investigated. Available studies have mostly been conducted from the perspective of sociology such as effects of parenting style on socialisation of children (e.g. Keshavarz & Rozumah, 2009). On the other hand, studies that examine verbal production of cleft-affected children in Malaysia i.e. repaired or non-repaired heavily focus on clinical assessment that inform data on sound errors (e.g. Normastura et al., 2008).

This study appears to be among the earliest study that investigate parent-child interaction involving Malay speakers within the context of Colloquial Malay and includes children with surgically repaired cleft. The implications that can be obtained within this scope is first, understanding children's ability to participate in everyday interaction and awareness on the linguistic ability when interactional breakdowns take place.

First, this study provides overview on how parents interact with their children with such condition. Children born with cleft at its various forms are expected to experience difficulties that can affect their quality of living. Many of the affected aspects such as sound production occur when the children are at the critical phase of language acquisition process. This can definitely cause them to be left behind than the normal developing children. Even after corrective surgery, problems related to cleft still persist. These problems include psychology, social and other relevant issues such as academic achievement. Therefore, findings from this study provide the overall picture on how parents attend to their children's overall development through their mutual participation in social interaction.

Second, findings from this study have shown the children's linguistic and non-linguistic ability to participate in interaction. This information is useful to understand the impact of cleft beyond sound articulation. Study such as Nopoulos et al. (2007) has tried to link the occurrence of cleft and cognitive functioning of the patients. This study thus can further strengthen the argument and open ways to future linguistic investigations in other area than phonetics. This may include pragmatic analysis that can inform their social skill development.

5.4.4 Comprehensive Treatment Plan

Understanding children's ability to participate in social interaction can lead to development of a more comprehensive treatment plan for cleft-affected children. Currently, treatment is designed within clinical approach that focuses on accurate speech production. However, findings from this study have shown the main contributors for breakdowns to occur in interaction with their parents are resulted from children's inability to participate well in the process. Children are found to have difficulty in giving sufficient

and accurate information or using phrases or expressions that can cause their co-speakers to have problems.

With this understanding, speech therapy that usually is needed by children after corrective surgery can include activities to increase their language use in interaction that they have to participate in. Integration between treatment on targeted sounds for correction and spontaneous interaction can benefit children's positive development in their ability to produce sounds within interactional context rather than to focus on speech assessment alone. This non-clinical approach into the current practice is believed to increase other aspects as well such as self-confidence and motivation.

5.5 Recommendations for Future Research

As final words, it is recommended for future intended study to pay attention to several possibilities that are derived from findings in this study.

First, it should be mentioned that the amount of interactional data in this study is not large. This study has a video recording of everyday interaction between participants of close to 7-hour. The interactions were obtained to activities that are limited to family meal time, family leisure time and specific-task such as completing school works. It is thus recommended that future study should consider larger amount of data by increasing the hour of recordings and conduct recordings over various social activities that may pose different patterns of interaction.

Secondly, this study also recommends future study to have comparative study as its research design. Comparing interactional data that are obtained from children with surgically repaired cleft to children who have no history of speech problems can strengthen the findings relating to the studied variables. This study solely includes families with surgically repaired cleft children. In addition, this study does not examine the impact of cleft types on children's OIR practice. Therefore, future study should

consider cross-examination between cleft types to determine the overall effect of cleft on language performance.

Finally, future study should consider to take up acoustic analysis to be integrated into CA-informed procedure. It is understandable that cleft directly impacts speech organs i.e. upper lip and/or hard palate. Even after corrective surgery, speech problems can persist until late adulthood. By collecting data from natural conversation and analysing through sequential analysis, acoustic analysis can enhance the findings by pointing out aspects of pronunciation and prosody employed by them. Despite the data collection process that can be rigorous, findings are expected to be increased in their generalisability.

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