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"Slowly But Sure": A Language Deficit of a Child with Down Syndrome

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Abstract

This is a case study reporting the language deficit of a child with down syndrome. The qualitative descriptive method is used in this study to provide a detailed description dealing with linguistics aspect the child has perform to show a language deficit he has. The data were collected from documents in the form of field notes during the observation, the parents' diary, and the interview transcript with caretakers. The result shows some deficits performed by the persons with Down Syndrome caused by articulatory limitation, difficulty to follow some words in long statements, and difficulty to respond to the topic of conversation he has no background knowledge about. The results of this study will give good implication for both readers who happen to have the same case on how to deal with student with down syndrome and provide information regarding their language development for later to find best solution to handle them with a good care.

Keywords: Language Deficit; Down Syndrome; Syntactic and Morphological aspect

1. Research Background

All parents wish for their children to grow up well. One of the most admirable memoirs that parents feel in the early stages of their baby's growth is the development of their child's language. Children can be said to have typical language development if they perform or show more complex language capabilities along with their age maturity (Manipuspika & Sudarwati, 2019). Children's language acquisition is one of the most significant milestones in a child's life because the different types of linguistic experiences that occur in a child's life would be memorable memories that will leave their own imprint.

Children can be said to have normal language development if they perform or show more complex language capabilities along with their age maturity (Manipuspika & Sudarwati, 2019). Typically, a child will undergo sequence of language growth includes two aspects namely pre-linguistic and linguistic. The pre-linguistic phase of language development includes things like babbling, gesture use, repetition, and mutual focus, while the linguistic phase of language development includes linguistics aspects like phonology, grammar or syntax, and pragmatism (Roberts et al., 2007).

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However, children's language development is not always as good as predicted, and This can happen to any child, regardless of age, history, family, or descent (Egan et al., 2011). Some children's development differs from that of other children, which can be attributed to a variety of factors. A child with Down syndrome may be born to anyone, regardless of ethnicity, socioeconomic status, or geographic position (Martin et al., 2009). Some children have language disabilities, which results in them not developing their language skills as typical as children without down syndrome. One of the language problems experienced by children is Down syndrome.

Down syndrome (DS) is a condition which often is associated with an intellectual disability where the diagnosis can be made shortly after birth (Selikowitz 2008). DS is a common congenital disability that is usually due to an extra chromosome. It becomes the leading cause of intellectual disability, which means slower learning pace than the average (Brill, 2007; Patterson & Lott, 2008). This intellectual disability can be seen from many cases one of which is shown by DS under average of the learning pace. For example, the ultimate syntactic and morphological levels achieved by most individuals with DS are consistently low across several studies (Fowler, 1990). In addition, children and adolescents with Down syndrome show a dissociation between linguistic and cognitive disability such that their language difficulties, particularly deficits in expressive language, are more severe than their nonverbal cognitive skills would predict (R. Chapman, 2006).

The phenomena of children with the DS are not something new as we sometimes encounter in our environment. In line with the increasing knowledge in the community, parents of DS children who used to just surrender are now starting to undertake alternative therapies or treatments to minimize the impact of the relationship that arises on both the physical and language development of the child. A variety of therapeutic methods are available today that will help parents and provide support to parents to support children's growth and development. However, not all parents of children with DS use therapy services or therapist assistance to help them manage their children. There are also parents who are armed with the knowledge they get independently to help their children with DS live their lives. They struggle independently to fight negative stigma and rely on the knowledge they have and the knowledge they get from various sources for their own application as a method of therapy.

Previous scholars have already showed some concerns regarding the language development of persons with DS stressing that people with DS are lacking on the aspects of language development. Phonologically, children with DS may show phonological disorder (Dodd & Thompson, 2001). Some of children with DS keep producing pronunciation of errors and simplification patterns (Roberts et al., 2005). Moreover, Roberts et al. (2005) found that boys with Down syndrome produced fewer consonants correctly and more syllable structure phonological processes (e.g., cluster reduction, final consonant deletion) than younger, typically developing children of similar nonverbal mental age. Barnes et al. (in press) reported similar findings for connected speech samples. Next, children with DS also get difficulty in terms of syntax or grammar. They

may display critical weaknesses with sentence structure (R. S. Chapman, 1998; R. S. Chapman et al., 2002; Hesketh & Chapman, 1998; J. E. Roberts et al., 2007). Moreover, a study by (Weinzapfel, 2014) also shows that syntax development for teenagers and adults with Down syndrome continues beyond early adolescence. Another aspect, a down syndrome children may suffer is a lack in pragmatic aspect. Roberts, Martin et al. (2007) in their study shows that children with Down syndrome were less elaborative when maintaining topics and produced more turns that were simply adequate in quality (e.g., simple responses and acknowledgments), than younger typically developing children of similar nonverbal mental age. Another study showed that adolescents and young adults with Down syndrome expressed messages that were less clear when describing novel shapes during a non–face-to-face task than mental age–matched, typically developing children (Abbeduto et al., 2006). Another aspect of language development concerning children with DS can be seen from their morphological aspect. This aspect is very important as morphology incorporates the standards that oversee word development and 2 developments. This is the part of language that decides when a sound conveys huge importance (Kaderavek, 2011; Owens, 2008).

Despite huge concerns on the investigation of language characteristics of children with DS, it seems that an investigation on language development related to DS case which rely on parental therapy is under researched. Therefore, the present study tries to fill in the gap by giving more emphasis on language deficit of a child with DS focusing on phonology, syntax, morphology, semantic, and pragmatics aspects in the effort of L1 language acquisition of a child with DS.

2. Theoretical Framework

2.1 Language Disorder

Language disorder is a type of communication disorder in which someone has chronic problems learning or using different types of language. Language disability is described by The American Speech-Language-Hearing Association (1993, p.40, cited in Paul et al. 2012, p.1-2) as a deficit throughout comprehension and/or other use of spoken, written, and/or other symbol systems. The condition may include 1). The language form (phonology, morphology, and syntax), 2) The language content (semantics), 3) The function of language in communication (pragmatics), in any combination.

2.2 Types of Language Disorder and its relation to Down Syndrome

There are two types of language disorders, according to Fletcher and Miller (2004, p.2). The first is a language deficiency with no clear cause, also known as specific language impairment (SLI), and the second is a developmental disability. Specific Language Impairment (SLI) is a disorder in which someone has language problems that are not triggered by a documented cognitive, sensory, intellectual, or emotional deficiency such as ADHD, Down syndrome, Autism, or hearing disability.

As previously mentioned, Down syndrome is one of the causes of language disorders. Down syndrome is a widespread birth condition that causes mental disorder, a distinctive facial appearance, and a variety of malformations. It affects people of all races and socioeconomic backgrounds. Down syndrome is caused by an extra number 21 chromosome (Roberts et al., 2007). Because of the genes on the extra chromosome, the cell produces an abnormally large number of such proteins. Every DS patient has an extra essential portion of chromosome 21 in their cell. However, the amount of chromosome 21 that is present, as well as the manner in which the error occurs, can take one of three types (Selikowitz 2008, p.33).

2.3 Children with Down syndrome: Language Characteristics

Down syndrome's unique physical and psychological features have an effect on the language disorder's characteristics as well. According to Gary E. Martin et al. (2009), the following are the language characteristics developed by people with Down syndrome:

1. Deafness

   Conducting hearing loss, sensorineural hearing loss, or both may affect two-thirds of DS children. This disorder is linked to grammatical morpheme and vocabulary comprehension difficulties.

2. Inadequate oral-motor skills

   Individuals with Down syndrome have a unique oral structure and function, such as a small oral cavity with a comparatively large tongue and a thin high arched palate. These differences contribute to poor speech intelligibility through dysarthria factors such as reduced speed, range of motion, and articulator coordination.

3. Phonological mistake

   Individuals with DS also show phonological errors such as incorrect consonants and syllable structure processes (e.g., final consonant deletion and cluster reduction).

4. A lack of syntactic structure

   Individuals with DS typically exhibit syntax deficits in the misuse of active and passive speech, direct or indirect objects, and comprehension of grammatical morphology (prepositions and bound morphemes).

5. Deficit in pragmatism

   Individuals with DS have a dynamic profile of pragmatic strengths and weaknesses. Topic initiation and elaboration, communicative repairs, and some linguistic aspects of narrative can pose difficulties for them. Otherwise, they may use several communicative functions, such as the ability to stay on participant, respond to requests for clarification, and tell stories with sufficient content when visual supports are used.

3. Research Methodology

This study involves two participants namely child with down syndrome named S and his mother. The researchers serve as the main instrument to collect and analyze the data. In collecting the data, the researchers were help by additional instrument in the form of recording tool.

In this study, the researchers used a qualitative method as it is a comprehensive study conducted to comprehend phenomena observed by research participant such as behavior, perception, motivation, acts, and so on, with the findings presented in descriptive form using scientific language and procedures (Moleong, 2003). More specifically, this study is a case study as it aims at obtaining a comprehensive and in-depth definition of an object. The researchers described and explained the data using the language and sentences spoken by Down syndrome child. The data were the recorded daily utterances of the participant, the diary book of the subject's participant's mother and the in-depth interview results obtained from the participant's family. The language deficits which are from the recorded utterances of participant is classified based on its phonology, syntactic, morphology and pragmatics aspects. Thus, it results in the emergence of language development characterizing in individual with down syndrome.

To address the research ethical issue, the researchers have provided a consent form for S mother to sign in indicating her agreement to have all the data published. The researchers also make sure that the participants understand the purpose of the study and ethical clearance should be maintained in which participants' rights during participation are well treated. It is essential to protect the privacy and confidentiality of the participants in the study. As S mother is willing to participate in the study, she is required to fill and sign in informed consent form, declaring that she understood the study and wanted to get involved in the study.

3.1 Research Subject

The participant of this research is a ten-year-old child, Named S. he has been diagnosed as a person with Down Syndrome though his other three siblings are not. Before birth, the participant was diagnosed Atrial Septal Defect (ASD) with 0,52cm and diagnosed as Down syndrome child based on physical appearance at birth. ASD is rare congenital heart disorders which occurs because there is a hole in the septum that separate the left and right atria. Usually, the left side of the heart pumps blood is stronger that the right side.

3.2 Data Collection

There are several procedures taken by the researchers to collect the data namely observation, document analysis, and in-depth interview. First, the researchers observed the participant as natural as possible to collect the data by observing S' daily activities in the family. Reflective fieldnotes were made as soon as the researchers finished observing the participant. This reflective field notes were about the researchers' impression and meaning making reflecting the participant's language capacity as well as his behavior and

how the participant get engaged with the family members. Next, the researcher also got the data from document in the form of diary book written by the participant's mother telling the participant's condition from 0 month until 8year old. The book entitled "Special Moments: Syauqi RINDUKU Syauqi MY PASSION" by Ummi Lili Musyafa'ah. Next step is interviewing the family especially his mother as she is S's closest caretaker. An in-depth interview with family member was done to learn more about S language development. In depth interview was done to get detailed information regarding S language development.

To address the ethical issue of this research, the researchers provide a consent form signed by S's mother as an indication of her agreement to have all data used for the sake of this research. The consent form is attached on Appendix 1.

3.3 Data Collection

In analyzing data, there are some steps as follows:

1. Transcribing the data
   All the statements of the participant's utterances that had been recorded during the observation were transcribed by the researchers. The transcription also deals with the in-depth interview that the researchers have done to the S's caretaker namely his mother
2. Classifying the data
   The researchers separated classified the data into three different categories namely data of language deficit in terms of phonology, morphology, and syntax. The researchers and put them into table number to ease the data analysis so that it is more manageable (McNeilly, 2011; Martin et al., 2009).
3. Analyzing the data by addressing the issue on language deficit shown by child with DS in three aspects namely phonology, morphology, syntax, semantics, and pragmatics.
4. Drawing conclusion based on the findings

4. Results and Discussion

The researchers analyzed the data found to figure out the language deficit of a person with Down Syndrome named S based on the combined theory by (McNeilly, 2011) and (Martin et al., 2009). It shows that there are many language deficits showed by S.

After analyzing the data, the researchers found out that S experienced covering language form (phonological disorders, morphological disorder, and syntactic disorder.), language content (semantics) and language function (Pragmatics). All are discussed as follows.

4.1 Phonological Deficit performed by a child with DS

According to Martin et al (2009) the phonological disorder is a common feature of a person with Down syndrome. In this study, the researchers found some deficiency of the

phonological aspect performed by the participant covering substitution and omission. Here are the data of phonological substitution from the participant.

Table 1. *Data of phonological substitution*

	Substitute	**Participant utterance**	**Correct word**	**English**
Substitutions	/r/ → /j/	Lapaj /lʌpʌi/	Lapar /lʌpʌr/	Hungry
		Pejgi /pəigI/	Pergi /pərgi/	Go
		Lebaj /ləbai/	Lebar /ləbar/	Wide
		Jabu /iʌbu/	Rabu /rʌbu/	Wednesday
		Jusak /iusʌk/	Rusak /rusʌk/	Broken
	/f/ → /p/	Pasih /pʌsIh/	Fasih /fʌsIh/	Fluent
		Daptar /dʌptʌr/	Daftar /dʌftʌr/	Register
		Aktip /ʌktIp/	Aktif /ʌktIf/	Active
	/s/ → /ng/	Habing /hʌbIŋ/	Habis /hʌbIs/	Exhausted
		Malang /mʌlʌŋ/	Malas /mʌlʌs/	Lazy

1. /r/ → /j/

The participant uttered the words of "Lapar" or "go" as "Lapaj", "pergi" as "pejgi", "lebar" as "lebaj", "Rabu" as "jabu" and "rusak" becomes "jusak". The consonant "r" cannot be pronounced by participant clearly and it becomes "j/i" not "r" like supposed to be. The place and articulation of /r/ is in alveolar and /j/ is in palatal. Alveolar consonant is formed with the front part of the tongue on the alveolar ridge, which is the rough, bony ridge immediately behind and above the upper teeth. Whereas palatal consonants are produced with the tongue and the palate. Anatomically, the alveolar and palatal positions are nearby. The causal is due to various oral functions such as small oral cavity and large tongue, so the participant misplaced to articulate it.

2. /f/ → /p/

A labiodental consonant is sounds formed with the upper teeth and the lower lip. While a bilabial consonant occurs when the airflow blocks out of the mouth by bringing

your lips together. From the datum, we can see that the participant substituted labiodental sound such as /f/ sound into /p/ which is bilabial. The participant was not forced through the upper teeth and lower lip, but he was blocked by closing the lips. It shows that the participant has a lack of coordination of the articulators. The examples are the words of “Fasih”, it is pronounced as “pasih”, “Daftar” becomes “daptar” and “aktif” pronounces as “aktip”. The participant changes the consonant of “f” to “p”.

3. /s/ □ /ng/

The participant also performed the substitution between the articulation on alveolar into velar. The consonant of “s” cannot be pronounced by participant, so he pronounces it as “ng”. for the examples of the words “habis” and “malas”, the participant pronounces it as “habing” and “malang”. It can be causal, while alveolar sound is produced between of teeth and gums, velar is blocked by pressing the back of your tongue against the soft palate. The alveolar sound in this word may cause this condition is on the back of word so the participant had difficulty to coordinate the articulators.

Besides, substitution, the participant also performed omission namely the participant often omitted specific sounds, which ae regarded as an omission, apart from substation. Here are the specifics of the participant’s omissions from his recorded utterances.

Table 2*. Data of phonological omission*

	Partticipant Utterance	Correct Word	English
Omission	Ambut /ʌmbut/	Rambut /rʌmbut/	Hair
	Ma’ah /mʌ’ʌh/	Marah /mʌrʌh/	Angry
	Obil /ɔbɪl/	Mobil /mɔbɪl/	Car
	Enapa /ənʌpʌ/	Kenapa /kənʌpʌ/	Why
	Poisi /pɔɪsɪ/	Polisi /pɔlɪsɪ/	Police

From the data, the participant performs the omission on the front and in the mid of word. The participant deletes one letter or one syllable of word.

The word “Rambut”, “Mobil” and “Kenapa”, the participant omitted one letter on the front of word which were “R”, “M” and “K” while /r/ is alveolar, /m/ is a bilabial consonant and /k/ is velar. The participant also omitted a letter in the mid of word “Marah” and “Polisi” which /r/ and /l/ are alveolar. After those letters, it follows with vowel and consonant. The cause of this sound omission may be identical to the cause of the

participant appears to replace this sound caused by the anatomical variations of Down Syndrome, which has a narrow high arched palate, a small oral cavity, and a relatively broad tongue, thereby affecting the development of sounds.

4.2 Morphological Deficit performed by a child with DS

The other language forms that the participant has failed to produce are morphology, in addition to phonological aspects. The details and explanation are as follows.

Moreover, Roberts et al. (2005) found that boys with Down syndrome produced fewer consonants correctly and more syllable structure phonological processes (e.g., cluster reduction, final consonant deletion) than younger, typically developing boys of similar nonverbal mental age. The previous study from Roberts and this study are similar. The boys with disability typically reduced word shapes, occurring as a result of omitted syllables, reduced consonant clusters and deletion of consonant single tons. For young children with DS, the findings recommend a similar arrange of single word assessment, paying explicit attention to morphology processes. To uncover these processes, it's vital to assemble a sample that features a powerful illustration of consonant clusters and multisyllabic words with varied stress patterns once testing the single word production of children with DS. The difference is on the participant of the study while Roberts took almost all age range, and this study only took an individual in 10 years old with DS.

In addition to phonology aspect, the participant also performed morphological deficit which is lack of morphological elements developed characterized by misuse of lexical and functional morphemes. This issue will contribute to the difficulty of constructing the syntactic structure in the severe case. The morphological error is also shown by some claims made by the participant from the data taken by the researchers. Below is the details and further clarifications.

Table 3. *Data of morphological deficit*

	Participant Utterance	**Correct Word**	**English**
Derivational Morphemes	Reka	Mereka	They
	Kan	Akan	Will
	Gi	Pergi	Go
	Main	Bermain	Play
	La	Bola	Ball

The table above showed that morphological deficit performed by the participant is the deficiency in performing derivational morphemes. The derivational morpheme is a morpheme which transforms the word into a different part of speech. As on the words mentioned in the table, the participant omitted the prefixes which functions to indicate a measurement to change the word classes. From the word of "mereka", the participant only mentions two last syllables of 3 syllables in a word. The other example is "Akan", the first syllable "A" is omitted by the participant's utterance. The next is the word of "pergi",

the participant only mentions the last syllable which is “gi” so the syllable of “per” is omitted by the participant. The last two examples also are same as before. Although it has two or three syllables, the participant only can perform the last syllable such as “bermain” to “main” and “bola” to “la”. It is caused the participant has difficulty to follow some words in long statement. The participant was able to follow but he could only mention the last morpheme of each word.

4.3 Syntactical Deficit performed by a child with DS

Due to the obvious subject’s participant’s morphological deficiency, the syntactic production is also affected. According to (Martin et al., 2009), syntax deficit is common to find in persons with Down Syndrome, such as sentence structure and comprehension of grammatical morphology (prepositions and bound morphemes) misuse. Related to this theory, the participant of this performs some of the syntactical deficits. The data and the elaboration are as follows:

Table 4*. Data of syntactical deficit*

	The Participant Utterance	**Correct Sentence Structure**	**English**
Syntax	$_{N}$[S] $_{V}$[ikut] $_{V}$[boleh]?	$_{N}$[S] $_{V}$[boleh] $_{V}$[ikut]?	can S join?
	$_{N}$[S] $_{V}$[boleh] $_{V}$[pinjam] $_{V}$[apa]?	$_{V}$[apa] $_{N}$[S] $_{V}$[boleh] $_{V}$[pinjam]?	may S borrow?

As we can see the first and second participant utterances, the participant performed the interrogative sentences by putting question words (WH-Questions and modal auxiliaries) in the end of sentences. We may infer from the above elaboration that the participant has trouble creating language forms such as phonology and morphology, which also affects his ability to produce a sentence in syntactic terms. The next topic will concentrate on the ability of the participant to answer the language material.

4.4 Semantics deficit performed by a child with DS Language Content

The other language deficit performed by participant is semantic. Semantic is the study of meaning or language content. In this section, the researchers discuss about the subject’s participant’s utterance to convey the meaning of language in his daily utterances. The data and elaboration are stated below:

Table 5*. Data of semantic deficit*

Semantic Aspect	**Researcher’s Question**	**Participant’s Answer**	**English**
Semantic Features	R: ini gambar apa?	P: iya	R: What picture is this? P: yes
	R: Ini buku apa?	P: Punya Uqi	R: What book is this? P: it’s Uqi’s
	R: aku punya jajan nih	P: pinjam	R: I have snack

			P: borrow

From the table above, we will discuss about the use of semantic features by the participant in daily utterances. The first one is the participant responded "iya" or "yes" to the question of "ini gambar apa?" or "what picture is this?". The question that is asked by researcher is needed an answer as an animate or living noun. However, the participant only responded it with "iya" or "yes". Therefore, the semantic feature in this utterance is meaningless. The next example is on the question of "ini buku apa?" or "what book is this?" answered as "punya uqi" or "it's uqi's". The searcher asked the participant what kind of book, but the participant answered it with "punya uqi" or "it's uqi's". The answer that is showed by participant is the possessive pronoun of what participant has. He answered the question of "whose book is it" rather than "what book is this". The causal of this condition might be claiming at his ownership of a thing. The last example is the utterance of the researcher to give information to the participant "aku punya jajan nih" or "I have snack" but the response of the participant deviated a little "pinjam" or "borrow". The cause of this condition is the participant has confusion to use the word "pinjam" or "borrow" and "minta" or "ask". The participant still often made mistakes in using the words of borrow and ask to respond the question that related to them. From the first and the second example uttered by participant has no correlation, but the third utterance can conclude that the participant has known about the words but he inappropriately uses of meaning in single words, phrases, sentences, and even longer units and might be the participant has limitation of language repertoire.

4.5 Pragmatics Deficit performed by a child with DS Language Function

The field of pragmatics is one of the aspects of language development that a person with Down Syndrome is lacking. In a social context, it is the interpretation and the use of language. This requires the capacity in the communicative and social context to use acceptable language and to understand social rules. According to (Martin et al., 2009), individual with DS displays a complex profile of strengths and weaknesses in pragmatic aspects.

Table 6*. Data of pragmatic deficiency in speech act*

Speech Act	**Participant Utterance**	**English**
Imperative	Dengej! (denger)	Listen!
	Beresin kakak!	Clean it up sister!
Interrogative	Kak, ni (ini) apa?	Sister, what is this?
Declarative	S mau pegi (pergi) sama umi	S wanted to go with mom

From the data above, we can see the participant is good at speech act in daily life. The participant is good at using pragmatic aspect. The first is the participant managed the use of imperatives, for example on the utterance "dengej!" or "listen!". In this utterance

the participant tried to ask attention to his sister. The background of this condition is the participant wants his sister to listen the music that he is interested in. Therefore, he asks his sister to listen also. The next utterance is “beresin kakak!” or “clean it up sister”. The participant asked her sister to clean up the surrounding where his toys are in a mess because his sister accidentally nudge. It makes the participant performs the imperative sentence of “clean it up sister”. Besides imperatives, the participant also uttered an interrogative “kak, ni apa?” or “sister, what is this?”. The participant was curious about the thing which was around him and his sister. The last speech act is declarative with utterance “S mau pegi (pergi) sama umi” or “S wanted to go with mom”. Regardless from its phonological error, the participant managed to convey his intention to give information in responding to the researchers’ statement “mau kemana?” “Where do you want to go?” in order for the questioner knew that he wanted to go with his mom.

Through elaboration above, the participant can manage the speech acts well. Unfortunately, the researchers found the pragmatic deficiency of the participant in other aspects which is co-operation principles. The participant will answer in difference while he does not focus on one activity. The answers will not relate if the participant does another activity with being asked. The data are the dialogue between the researcher (R) and the participant (SP).

Table 7. Data of pragmatic deficit in co-operative principle

Co-operative Principles	**Bahasa Indonesia**	**English**
Maxim of Relation	R: Sedang menonton apa? P: iya R: kartun ya? P: punya uqi	R: What are you watching? P: yes R: is it cartoon? P: it’s Uqi’s
	R: Ini buku apa? P: heem R: warna nya apa? P: iyaa	R: What book is this? P: heem R: what color is it? P: yes
	R: Mau makan apa? P: heem R: sekarang atau nanti? P: ayam	R: what do you want to eat? P: heem R: now or later? P: chicken
	R: Mau jajan? P: punya uqi	R: do you want snack? P: it’s uqi’s

From the data above, the participant performed the violation of maxim of relation in reason the participant showed the irrelevant answers. For example, on the first dialogue when the researcher asked “sedang menonton apa?” or “what are you watching?” the participant answered “iya” or “yes” and the researcher asked again

"kartun ya?" or "is it cartoon?" and he answered it again "punya uqi" or "it's uqi's". His utterances are irrelevant because the question "sedang menonton apa" or "what are you watching?" is to get information what things that the participant looked at and the question "kartun ya?" or "is it cartoon" is to clarify what the participant watch but the utterance of the participant is containing the possessive pronoun of him. Therefore, the participant violated the maxim of relation.

The second example in on the dialogue of "ini buku apa?" Or "what book is this?" and "warna nya apa?" or "what color is it" in which the responses are "heem" and "yes". The context of the questions that is asked to the participant is to ask what kind of book that is, instead of answering related information such as fairy tale, math, or etc but the participant only mumbled and what color of the book it is. Furthermore, , instead of answering relevant question such as blue, red, or etc but the participant only answered it by "iya" or yes". These responses are irrelevant with the context of the researcher's questions. The next example is the researcher asked "mau makan apa?" or "what do you want to eat?" to get the information that participant wanted to get something to eat but the utterance is not related by mumbling "heem" so the researcher tried to ask again "sekarang atau nanti?" or"now or later?" but the participant uttered what he wanted to eat "ayam" or chicken". The last example in this case is on the dialogue "mau jajan?" or "do you want snack?" the participant answered it with "punya uqi" or "it's uqi's" which is not related to the context of question, so he violated maxim of relation.

After the data analysis was carried out, the authors found that the language disorders found in children with DS varied from language form covering phonology, morphology, and syntax. In addition, another deficiency can also be found in language content in the aspect of semantics and language function in the aspect of pragmatics.

Compared to previous research, this study has several similarities with research findings of the previous studies. The results of this study found that a child with DS is lacking phonological capacity indicated by pronunciation of errors and simplification patterns and it is in line with research done by the previous researcher (Dodd & Thompson, 2001; Roberts et al., 2005).

Next, the present finding also shows that children with DS also get difficulty in terms of syntax or grammar and this is supported by research like (Chapman et al., 2002; J. E. Roberts et al., 2007). The present study also reveals that syntax of the participant is still mixed up as the participant frequently makes mistakes in terms of sentence construction. He is still confused in making WH question for example by putting the question at the end of a sentence. However, he is still three years old and the possibility of it to improve is still bigger. This finding is in line with (Weinzapfel, 2014) who also shows that syntax development for teenagers and adults with Down syndrome continues beyond early adolescence.

Another aspect, a down syndrome children may suffer is a lack in pragmatic aspect. Roberts, Martin et al. (2007) in their study shows that with Down syndrome were less

elaborative when maintaining topics and produced more turns that were simply adequate in quality (e.g., simple responses and acknowledgments), than younger typically developing boys of similar nonverbal mental age. This result of the previous study is in line with the present study's finding shown by participant's lack of competence in elaborating his intention. Consequently, he does not show any indication of maxim of quantity violation since his capacity in giving more information than needed is very much limited. Another study showed that adolescents and young adults with Down syndrome expressed messages that were less clear when describing novel shapes during a non–face-to-face task than mental age–matched, typically developing children (Abbeduto et al., 2006).

The findings of the present study may only be applicable to S and other characteristics may be different with other adolescent with DS. As previously mentioned, the participant "S" does not have any intervention of health therapy so the possibility of having more advances of language development is still wide open. S' mom took care of her soon and patiently guided his language development based on her knowledge she got from the book and other family member's suggestion. More efficient language planning program supervised by health therapist can actually be implemented to person with Down Syndrome so there is a measurable language goal in every milestone of children language development. Once the goal in each milestone is achieved the target is extended. On the other way around, once if failed, evaluation and new strategy needs to be revaluated for better outcome.

5. Conclusions

Human life cannot be separated from the use of language and the development of language, both oral or written, especially children. Expressive language abilities present specific difficulties and for the most part are more weakened than open abilities in youthful people with DS (Caselli et al., 1998; R. S. Chapman et al., 2002; Laws & Bishop, 2003). In this study, phonological, morphological, syntactic, and pragmatic have been analyzed according to theories. Language characteristics typically addresses to person with Down Syndrome were also analyzed to give the readers insights on typical language characteristics a person with Down Syndrome may show. It can be factored by a homogenous take a look at of single word articulation, (J. Roberts et al., 2005) found that boys with birth defect created fewer consonants properly and additional sound structure descriptive linguistics processes (e.g., cluster reduction, final consonant deletion) that younger usually developing boys of comparable nonverbal age. In reality, nearly every person with DS is difficult to understand at least some of the time (Kumin, 1994). Children with Down syndrome use the same range of communicative functions (e.g., remarks, responses, and protests) as younger normally developing children matched for language or developmental stage, with the exception of requests (Beeghly et al., 1990; Coggins, T. E., Carpenter, R. L., & Owings, N. 1983). Children with Down syndrome will be able to remain on topic for a comparable number of exchanges as children with similar mental ages (Tannock, 1988). As the result, the participant has got difficulties to respond an

unfamiliar topic that is asked to him and also the difficulty of following the long sentences as we know child with DS has limitation language. As this is a case study, the result may be limited to the participant under the study. Thus, future researchers may consider of having more participants having more mature ages to see if those perform quite similar language characteristics. Investigation on person with Down Syndrome's language development having the health therapy intervention is also important to address to see if differences were found.

The findings of this study may be able to empirically help providing evidence or information dealing with language deficit that a child with DS. More studies need to be conducted by involving more research participants to get thorough and more extensive review on language performances performed by persons with DS. In addition, the result of this study may also give a positive impact on whoever who happen to have similar cases of how to deal with students with Down syndrome and provide information about their language development in order to subsequently identify the best option to handle them with care.

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