

Stuttering Patterns of a Stand-up Comedian with Speech Impairment: A Case Study of Nina G's Utterances

Yolanda Marcela Binambuni, Nina Setyaningsih

Universitas Dian Nuswantoro,
Semarang, Indonesia

311202002171@mhs.dinus.ac.id

ABSTRACT

A stand-up comedian needs to have good communication skills and ability to deliver material in a humorous way. This becomes a challenge for a comedian that has speech impairment, one of whom is Nina G, the stuttering comedian. Wingate (in Bloodstein, et.al, 2021) argues that stuttering is characterized by involuntary repetitions or prolongations in the utterance of short speech elements that occur frequently and are not readily controllable. These characteristics are also observable in her speech. This research is aimed at investigating the features of stutters in Nina G's speech, specifically in terms of the linguistic elements such as syntactic (phrases), lexical (words), phonetic (sounds) elements of the stutter. The data were taken from Nina G's performances uploaded on YouTube, and a descriptive qualitative method was used to analyze the data. The results of the preliminary analysis reveal that the most dominant characteristic is sound repetition (48.3%) which occurs in common nouns (43.4%) and when the initial sound begins with [s] (39.16%). The next is word repetition (17.6%) which frequently occurs in simple preposition and simple conjunction, followed by prolongation (12.3%) which occurs in common noun and the sound [i] (13.62%). Then, syllable repetition (11.9%) happens most when she utters lexical verbs and initial syllable beginning with [s] (23.52%). The rest are phrase repetition (4.7%) that occurs in adverb and simple preposition, and block (5.2%) which mostly appears in lexical verb. Thus, it can be concluded that Nina G's speech demonstrates certain patterns of stutter characteristics. Furthermore, it is also found that the situations she is in do not affect her stuttering characteristics at all. This research also suggests that despite her speech impediment, Nina G still succeeds in

Stuttering Patterns of a Stand-up Comedian with Speech Impairment: A Case Study of Nina G's Utterances

Yolanda Marcela Binambuni, Nina Setyaningsih

communicating her ideas and delivering jokes in her stand-up comedy performances.

Keywords: Nina G; speech impairment; stand-up comedy; stutter.

INTRODUCTION

Language is a complex system that humans use to communicate with one another. Verbal communication is one of the ways we can use language to interact with others. Written and spoken communication are the two components of verbal exchange, both are also classified as oral and non-oral (Indiana State University, 2016). This study focuses on the oral component of verbal communication which is spoken language. Speaking is a complex cognitive process that allows people to communicate their wants and needs, in order to make a smooth conversation one must undergo four processes of speech production: initiation, phonation, oro-nasal process and articulation as cited in (Kormos, 2006). When a person does not successfully undergo the processes, the speech production that they will utter will not be fluent, or in other word, disfluent. According to (Algozinne & Ysseldyke, 2006) there are two types of disorders, namely speech disorder and language disorder. It is common for people to be born or to develop a speech disfluency that disallow them to deliver their utterances properly.

This study analyzes stuttering, a speech disorder that breaks a flow of speech made by a person. Stuttering is usually in forms of repetition, prolongation, and broken fluency (Hedge & Davis, 2005). Stuttering can occur either because a person has a speech impairment or because they experience a strong emotion such as joy, rage, fear, excitement, nervousness, or surprise (speech error). Damage to the speech mechanism, including the palate, lips, larynx, teeth, and others, as well as underlying problems including psychological problems, might be the cause of stuttering.

Studies that have closely examined stuttering within a linguistic framework also claimed that factors like syntactic factors play a role in the prediction of disfluency. Word class is a syntactic feature that may predict stuttering (Bloodstein & Gantwerk, 1967) and the complexity of phonological and phonetical aspect including syllable and the location of it in utterances (Howell & Au Yeung, 1995). The purpose of this study is to identify the features of stutters from the selected data using the theory of Hedge and

Davis (2009), to locate the position and word type of utterances within the sentence using the theory of syntactic study by Aarts and Aarts (1982), and identify the word class and sound that they make (examined phonetically) which will later be transcribed in international phonetic alphabet following the book of American English Phonetic Transcription (Carley & Mees, 2021)

Previous related studies of stuttering have been done by several researcher, the first one is the study by (Fadilah, 2021) which examined the main character of the movie "The King's Speech". This study analyzes Bertie as the main character who had a developmental stuttering by the ground theory of Hedge and Davis (2005) that divides stuttering characteristics into three types namely repetition, prolongation, and broken fluency. Result reveals that the dominant stuttering characteristic is blocking and the second is repetition while others characteristics are not found in the data. The study also reveals that in the movie, the cause of Bertie's stutter is psychological problem because of his childhood trauma given by his environment.

The second study by (Sari, Arifin, & Setyowati, 2020) analyzes the stutters made by Hal Hefner in the "Rocket Science" movie and the consequences in her social life. The theory of this study is by Sleeper (2007) that divided stuttering characteristics into three: repetition, prolongation, and block. Another theory is by Dickson (cited in Hundsaker, 2011) that divided the consequences of stuttering in social life into fear to talk, failure in communication, mocked or bullied, and hard to get friends or partners. The study resulted that Hal Hefner experienced block most frequently and repetition (divided into three sub-types part-word repetition, whole- word repetition, phrase repetition; and block) as second most frequent. The data of prolongation is not found. And the three consequences that Hal Hefner experienced are fear to talk, failure in communication, and mocked or bullying.

The third related study done by (Nurhayati, Fadhly, & Rahmatunisa, 2021) is aimed to reveal the characteristics of stuttering made by a high schooler in Kuningan. The study proposed theory of Khan (2015) who stated that the characteristics of stuttering are characterized by these following features: Repetition, Prolongations, and Blocks. The study's findings showed that the repeat of the participant's stuttering was the key finding. The repetition happened nine times, the block happened just once, and there was no delay during the reading session. The repetition, however, appeared four times throughout the speaking portion of the brief introduction, while the other key action did not take place. The participant's initial syllable is when the

repetition is most noticeable.

This current study will analyze Nina G, a comedian from San Fransisco who deals with stuttering in her life (G, 2019). The data will be taken from the transcript of four of her videos taken from YouTube: [1] The speech from her stand-up comedy ([youtube.com/watch?v=CKKETCe_urE](https://www.youtube.com/watch?v=CKKETCe_urE)), [2] The speech in Ted Talk ([youtube.com/watch?v=LLOkprmqbRM](https://www.youtube.com/watch?v=LLOkprmqbRM)), [3] Her conversation in online podcast ([youtube.com/watch?v=eUwO yDGJxI](https://www.youtube.com/watch?v=eUwO yDGJxI)), and [4] Her conversation in a TV talkshow ([youtube.com/watch?v= oGy ssR\]ds](https://www.youtube.com/watch?v= oGy ssR]ds)). The gap of this research from other related studies is the theory proposed as well as the data. The theory used in this study is stuttering characterized by (Hedge & Davis, 2005). As opposed to data from movies, the researchers chose the data of Nina G because it represents data from real life. She did not stutter or speak as directed. The speaker in each video was in a different scenario, such as a casual speech as a comedian, a formal speech at a Ted Talk, an online conversation, and an in-person conversation, which is another reason why the researchers chose four different videos for this study. It is hoped that this study will enrich the knowledge existing in the study of linguistics, especially in the field of psycholinguistics.

METHOD

Research Approach

This study used qualitative research for its method, "Qualitative research begins with assumptions, a worldview, the possible use of theoretical lens and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem," (Creswell, 2007). In addition, according to Creswell (2007), a case study permits the researchers to look into the detailed data gathering, which consists of several sources of information like observations, interviews, documents, and reports. As a result, the qualitative descriptive method was used in the research on speech sound disorders, notably stuttering, to collect data for each variable. One of the methods employed in the research to gather the data was observation. According to Creswell (2007, p.37), "observation includes such concerns as the potential marginality of the researcher, impression management, and the potential dishonesty of the persons being interviewed." The researchers noted the participant's utterances and communication abilities, particularly speaking production, while observing the participant's classroom activities in the English language subject.

Source of Data

The source of the data for this research was taken in videos from YouTube which featured a comedian named Nina G. There are four videos in total which situated the comedian in four scenarios: [1] The speech from her stand-up comedy ([youtube.com/watch?v=CKKETCe_urE](https://www.youtube.com/watch?v=CKKETCe_urE)) is a monologue with the duration of minutes where she is casually talking about her stand-up comedy material, [2] The speech in Ted Talk ([youtube.com/watch?v=LLOkprmqbRM](https://www.youtube.com/watch?v=LLOkprmqbRM)) is a monologue with the duration of minutes where she is formally talking about her journey with stuttering, [3] Her conversation in online podcast ([youtube.com/watch?v=eUwOyDGjxI](https://www.youtube.com/watch?v=eUwOyDGjxI)) is a dialogue with the duration of minutes where she is casually talking about her experience, and [4] Her conversation in a TV talkshow ([youtube.com/watch?v= oGy ssRjds](https://www.youtube.com/watch?v=oGy ssRjds)) is a dialogue where she is formally telling the audience about her journey since she was little until how she wrote a book about her life. Four data above consist of monologues in a formal and informal situation as well as dialogue in formal and informal situation. The researchers selected this data because it accurately depicted a stutterer in real life without using scripts, as well as her stutters in various contexts.

Technique of Data Analysis

Firstly, the researchers watched the four videos in order to fully grasp about the context of each video. After the researchers understood the context of the videos, the researchers downloaded the data of transcription from the official YouTube transcription document. The researchers next double-checked the transcription, reading the transcriptions while simultaneously listening to the data's audios, to identify any stutters in each document. To guarantee the accuracy of the data, the researchers repeated this at least five times. Once the transcription was thoroughly checked, the researchers separated the sentences that contain stutters from other regular utterances.

The stutters that have been separated then categorized using the theory of Syder (1992). This theory divided the characteristics of stutter into three namely: repetition (sound, syllable, word, phrase), prolongation, and blocks. The following examples will help you understand the example of stuttering characteristics: [1] Repetition in stuttering is divided into repetition of initial speech sound (l-l-love is something amazing), repetition of syllable (lo-lo-love is something amazing), repetition of word (love-love is something amazing), repetition of phrase (love is- love is- love is something amazing). [2] Prolongation in stuttering is the extension of

sound in a word that exceeds its normal length (loooove). [3] Block in stuttering is when a word is blocked midway and there is no sound or pause produced in-between (lo//ve).

Additionally, the researchers also categorized the location of the stutter in the sentence and determine the word classes using syntax by the theory of Aarts and Aarts (1982). The word classes in the corresponding theory can be understood more in Table 1.

After that, the stutters produced by the speaker will be phonetically evaluated using the sounds listed in the International Phonetic Alphabet based on (Carley & Mees, 2021) to identify the sound that the speaker is making when he/she stutters. Table 2 shows the sounds used in this study.

Table 1. Word Classes

Category	Sub-Category	Abbreviation
Noun	Common Noun	CN
	Proper Noun	PN
Adjective	Attributive Adjective	AttrAdj
	Predicative Adjective	PredAdj
Adverb	-	Adv
Verb	Modal Auxiliary	ModAux
	Primary Auxiliary	PrimAux
	Lexical Verb	LV
Preposition	Simple Preposition	SP
	Complex Preposition	CP
Conjunction	Simple Conjunction	SC
	Complex Conjunction	CC
Article	Definite Article	DefArt
	Indefinite Article	IndefArt
Numeral	Cardinal Number	Cnum
	Ordinal Number	Onum
Pronoun	Personal Pronoun	PersPro
	Self Pronoun	SelfPro
	Demonstrative Pronoun	DemPro
	Possessive Pronoun	PosPro
	Relative Pronoun	RelPro
	Interrogative Pronoun	IntPro
Quantifier	Reciprocal Pronoun	RecPro
	-	Quant

Table 2. Sound Categories

Category	Symbol	Example
Vowel	i:	sheep
	ɪ	ship
	e	pen
	æ	man
	ʌ	cup
	ɑ:	heart
	ɒ	clock
	ɔ:	ball
	ʊ	book
	u:	boot
	ɜ:	girl
	ə	a camera
	eɪ	male
	aɪ	fine
	ɔɪ	boy
	ɑʊ	house
	əʊ	phone
	ɪə	year
	eə	chair
	Consonants	p
b		baby
t		table
d		door
k		key
g		girl
s		sun
z		zoo
ʃ		shoe
ʒ		television
tʃ		chip
dʒ		January
f		fan
v		van
w		window
j		yellow
h		hat
θ		thin
ð	the feather	
m	mouth	
n	nose	
ŋ	ring	
l	letter	
r	rain	

To answer the research question, the researchers employed some steps of data analysis in qualitative research, including gathering data, getting the data ready for analysis, reading the data, coding the data, and reporting the results. The result contains frequency of each stuttering characteristics, the word class in the stutter, and the phonetics of sound that is produced in the stutters.

FINDINGS AND DISCUSSION

The following section presents the findings and discussion of the analysis.

Findings

1. Total Stutters and Each Characteristics Frequency

Table 3. Total of Stuttering and Frequency of each Characteristics

No	Data	Characteristics						Total
		Repetition				Block	Prolong.	
		Sound	Syllable	Word	Phrase			
1	Informal Monologue	12 (55%)	0 (0%)	4 (18%)	1 (6%)	2 (9%)	3 (12%)	22 (100%)
2	Formal Monologue	35 (37%)	14 (15%)	12 (13%)	7 (6.5%)	8 (7.5%)	18 (21%)	94 (100%)
3	Informal Dialogue	28 (51%)	7 (13%)	15 (27%)	1 (2%)	0 (0%)	4 (7%)	55 (100%)
4	Formal Dialogue	26 (66%)	4 (10%)	6 (15%)	1 (3%)	1 (3%)	1 (3%)	39 (100%)

The speaker made 22 stutters in the first video, the researchers discovered 55% of the sounds repeated, 18% of the words repeated, 6% of phrases repeated, 9% of blocks, 12% of prolongations, and no evidence of syllable repetition. In the second video, the speaker stutters 76 times, repeating sounds 37% of the time, syllables 15%, words 13%, phrases 6%, blocks 7%, and prolongations 21% of the time. The third video comprises 55 stutters, with 13% sound repetition, 27% syllable repetition, 2% word repetition, 4% prolongation, and no information regarding block. The final clip has 39 stutters, of which 66% are sound repetitions, 10% are syllable repetitions, 15% are word repetitions, and all 3% are phrase repetitions, prolongations, and blocks.

The total of stutters made by the speaker in overall video is 210 times (100%). This section shows that regardless of what situation the speaker is in, whether it's a monologue or a dialogue and whether it's formal or informal, the characteristic of stutter that dominates her speech is the repetition of sound which accounted to 48.3%, followed by 1.6% of word repetition, then prolongation 12.3%, and syllable repetition 11.9%. The rest which are phrase repetition and block are only slightly different with the percentage of 4.7% and 5.2% respectively.

2. Word Class Analysis of the Stuttered Words

Only 188 of the speaker's 210 stutters will be noted by the researchers since certain stutters are similar to others and are therefore deemed unsuitable to be analyzed twice. An example for this is, if the speaker stutters with one characteristic (ex, sound repetition) on the word ball three times, then it will be counted as one in the sound repetition section as it will be useless to analyze the word class of "ball" three times in a row. However, if the speaker stutters with two different characteristics (ex, block and prolongation) on the word "ball" two times as block and three times as prolongation, it will be counted as one in each characteristics (one for block, and one for prolongation). The detail of word classes that have been categorized is provided in Table 4.

This result proves that several word classes predominate over each stuttering feature. There are at least one or two particular word classes that dominate various types of characteristics. In this case, sound repetition and prolongation almost half of the time occurs in common noun (43.4% and 42.8% respectively). Lexical verb also appear close to half of the time the speaker stutter on syllables and did a long pause or block (47.5% and 47.3% respectively). On the other hand, word repetition have two word classes that appear to be similar in frequency, simple preposition and simple conjunction, which are both accounted up to 31.25%. And lastly, there are no word class in phrase repetition that dominates, but the highest percentage that accounted up to 25% are adverb and simple preposition.

3. Phonetic Analysis of Stuttered Words

The researchers aim to transcribe the phonetics made by Nina G only when the characteristics of her stutters are repeating sounds, syllable, and prolongation. The reason for this is because the repetition of word, repetition of phrase, and block do not take specific sound as the highlighted point of the stutter, therefore deemed unsuitable to be analyzed phonetically. The categories of the phonetics of sound in stutters made by Nina G is provided in Table 5.

As Table 5 shows, the result of phonetics categorizing shows that there are certain sounds that dominate Nina's stutter. In the section of sound repetition, the highest percentage goes to "s" which accounted to 39.16%. In the next section, two sounds have only one difference in their frequency which are s and w, their percentages are 23.52% and 17.64% respectively. Lastly, in the section of prolongation, the highest frequency of occurrence is the sound ɪ (13.62%), although when compared to the other sounds, it

can be seen that they all only have a slight difference.

Table 4. Word Classes Occurrences

Data	Word Class Category	Word Class Sub-Category	Freq.	Percentage
Sound Repetition Total of Words: 99	Noun	CN	43	43.4%
		PN	6	6%
	Adjective	Attr Adj	2	2%
		Pred Adj	4	4%
	Adverb	Adv	2	2%
	Verb	LV	38	38.4%
	Conjunction	SC	1	1%
	Article	Indef Art	2	2%
Numeral	ONum	1	1%	
Syllable Repetition Total of Words: 21	Noun	CN	6	28.6%
		PN	1	4.8%
	Adjective	Pred Adj	1	4.8%
	Verb	Prim Aux	1	4.8%
		LV	10	47.5%
	Preposition	SP	1	4.8%
Conjunction	SC	1	4.8%	
Word Repetition Total of Words: 16	Noun	CN	3	18.75%
	Preposition	SP	5	31.25%
		CP	1	6.25%
	Conjunction	SC	5	31.25%
	Article	Def Art	1	6.25%
Pronoun	Pers Pro	1	6.25%	
Phrase Repetition Total of Words: 12	Noun	CN	2	16.7%
	Adjective	Atr Adj	1	8.3%
	Adverb	Adv	3	25%
	Preposition	SP	3	25%
	Conjunction	SC	2	16.7%
	Quantifier	Quant	1	8.3%
Block Total of Words: 19	Noun	CN	2	10.5%
		PN	2	10.5%
	Verb	LV	9	47.3%
	Article	Indef Art	1	5.2%
	Pronoun	Pers Pro	5	26.3%
Prolongation Total of Words: 21	Noun	CN	9	42.8%
		PN	2	10%
	Adjective	Attr Adj	1	4.7%
	Verb	LV	1	4.7%
	Adverb	Adv	1	4.7%
	Preposition	SP	2	10%
	Conjunction	SC	1	4.7%
	Pronoun	Pers Pro	3	14.3%
Poss Pro		1	4.7%	

Stuttering Patterns of a Stand-up Comedian with Speech Impairment: A Case Study of Nina G's Utterances

Yolanda Marcela Binambuni, Nina Setyaningsih

Table 5. The Stuttered Sounds

Data	Sounds	Frequency	Percentage
Sound Repetition Total words: 56	ɪ	1	1.78%
	E	1	1.78%
	æ	2	3.57%
	ɜ:	1	1.78%
	t	1	1.78%
	d	5	8.9%
	k	4	7.12%
	s	22	39.16%
	tʃ	1	1.78%
	dʒ	2	3.57%
	f	4	7.12%
	w	1	1.78%
	h	1	1.78%
	θ	1	1.78%
	m	4	7.12%
	n	2	3.57%
ɫ	1	1.78%	
R	2	3.57%	
Syllable Repetition Total words: 17	a	1	5.88%
	b	1	5.88%
	k	1	5.88%
	s	4	23.52%
	f	2	11.7%
	w	3	17.64%
	h	1	5.88%
	m	3	17.64%
	n	1	5.88%
Prolongation Total words: 22	ɪ	3	13.62%
	æ	1	4.54%
	ɔ	1	4.54%
	ʊ	1	4.54%
	u	2	9%
	ɜ:	1	4.54%
	ə	2	9%
	aɪ	1	4.54%
	s	1	4.54%
	ʃ	1	4.54%
	w	2	9%
	j	1	4.54%

	m	2	9%
	n	1	4.54%
	ɫ	1	4.54%
	r	1	4.54%

Discussion

1. Sound Repetition

Excerpt 1

Nina: "I decided that I wanted to be a **s-s-stand-up** comic"

Phonetic transcription: "aɪ ,dɪ'saɪdɪd ðæt aɪ 'wʌntəd tu bi ə **s-s-stænd-ʌp** 'kɑmɪk."

The context of this utterance is when Nina G is telling about her dream when she was little, this excerpt is taken from the 4th data which is the formal talk show. Nina G made a repetition of sound on the word "stand-up" which is a common noun in this sentence. The phonetic symbol of the sound that she struggled on is **s**.

2. Syllable Repetition

Excerpt 2

Nina: "That is something that I wanted to make sure **wa-wa-was** cl-clear"

Phonetic transcription: "soʊ ðæt ɪz 'sʌmθɪŋ ðæt aɪ 'wʌntəd tu meɪk ʃʊr **wɑ-wɑ-wʌz** kl-klɪr."

The context of this utterance is when Nina G wanted to make clear about the importance to include disability point of view in conversation. This excerpt is taken from the 2nd data which is the formal monologue. Nina G made a repetition of syllable on the word "was" which is a primary auxiliary in this sentence. The phonetic symbol of the sound that she struggled on is **wa**.

3. Word Repetition

Excerpt 3

Nina: "I had other people who **had had** my back."

The context of this utterance is when Nina G was telling a story about how

an ally of hers had her back when she experienced micro-aggression. This excerpt is taken from the 2nd data which is the formal monologue. Nina G made a repetition of word on the word “had” which is primary auxiliary in this sentence.

4. Phrase Repetition

Excerpt 4

Nina: “And **So I need So I need** yooour help on-on this one.”

The context of this utterance is when Nina G was asking for help to smoothly deliver her joke. This excerpt is taken from the 2nd data which is the formal monologue. Nina G made a repetition of phrase on the phrase “so I need” which is adverb, personal pronoun, and lexical verb in this sentence.

5. Block

Excerpt 5

Nina: “And he said, ‘Can you **say//ninja?**’”

The context of this utterance is when Nina G was telling a story about her conversation with a friend she had years ago who supported and helped her to find a solution in order for her not to stutter on her name. This excerpt is taken from the 2nd data which is the formal monologue. Nina G made a long pause or block between the words “say” and “ninja” which are lexical verb and common noun in this sentence.

6. Prolongation

Excerpt 6

Nina: “You could look at something one way and it may look very negative.” Phonetic

Transcription: “ju kʊd lʊk æt 'sʌmθɪŋ wʌn weɪ ænd ɪt meɪ lʊk 'vɛrɪ
'neegətv.”

The context of this utterance is when Nina G was explaining about the way people live will affect their mindset whether they think of things as negative or positive. This excerpt is taken from the 2nd data which is the formal monologue. Nina G made an extension of sound in the word “negative” which is predicative adjective in this sentence. The phonetic symbol of the sound that she struggled on is **e**.

CONCLUSION

In summary of this paper, the characteristics of stutter proposed by Syder (1992) are all found in the stutters by Nina G. It is also found that the situation she is in do not affect her stuttering characteristics at all. In every scenario, her most dominant characteristic is the repetition of sound which also almost half of the time (48.3%) occurs in the word class common noun (43.4%) and when the initial sound begins with s (39.16%). The second most dominant characteristic is word repetition (17.6%) which frequently occurs in the word class simple preposition and simple conjunction. Followed by prolongation (12.3%) which occurs in the word class common noun and when the speaker made the sound ɪ (13.62%). Next, syllable repetition (11.9%) happened most when the speaker utter the word class lexical verb and the initial syllable begins with s (23.52%). The rest are phrase repetition (4.7%) that occurs in the word class adverb and simple preposition, and block (5.2%) which mostly appear in lexical verb. The researchers found that there are certain patterns that Nina G undergo in her speech such as her dominant characteristic of repeating sound, in which the occurrence of her sound repetition also almost always begin with s and the dominating word class is common noun. The researchers suggest that the next study to be conducted in stuttering characteristics can analyze more extensively to find out the patterns of stutters in more depth.

REFERENCES

- Algozinne, B., & Ysseldyke, J. (2006). *Teaching Students with Mental*. California: Corwin Press.
- Bloodstein, O., & Gantwerk, B. F. (1967). Grammatical function in relation to stuttering in young children. *Journal of Speech and Hearing Research*, 785-790.
- Carley, P., & Mees, M. I. (2021). *American English Phonetic Transcription*.
- Hedge, M. N., & Davis, D. (2005). *Clinical methods and practicum in speech language*. Clifton Park: Thomson Delmar Learning.
- Howell, P., & Au Yeung, J. (1995). The association between stuttering, Brown's factors, and phonological categories in child stutterers ranging in age between two and twelve years. *Journal of Fluency Disorders*, 330-345.

Indiana State University. (2016). *Introduction to Public Communication*.
Indiana: Indiana State University.

Kormos, J. (2006). *Speech production and second language acquisition*.
Lawrence Erlbaum Associates Publishers.