

Pause (*Mafsāl*) Analysis Using Audio Praat Application in Shaikh Dr. Malik Husain Sya'ban's Lecture

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ABSTRACT

Language is one of the important aspects of the key to understanding the specific goals and purposes used by people around the world, language as a tool serves as a significant communication tool developing in human civilization. this is evidenced by many types of supporting applications, the Praat program which can change sound waves that previously could only be heard now become visible to the human eye. In addition, the Praat program is equipped with a device to see the tone motion, the magnitude of the pause, and the length of the utterance, all of which are needed to determine the inaccuracy of an utterance or the error of the utterance. This study discusses the analysis of the lectures of Shaykh Dr. Malik Husain Sya'ban based on the theory of *mafsal* pause in Ulumu al-lughohwiyah. The purpose and objective of this study are to determine the intonation of the pauses of these expressions. This study applies qualitative descriptive analysis techniques. The results show that the high frequency of low tones in the content of the lecture predominantly used flat and low tones with a duration of 0, up to 1-2 per second, and the tone pitch and its frequency and intensity level touched at ½ db per second in speech flow.

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Introduction

Language is a unit of the system of sound symbols (Wiratno & Santosa, 2014:1.5), which is not separated from the aspect of humanity as a means of communication, the sequence of speech sounds has a relationship that is interconnected in parallel and continuously which is intermittent by pauses/joints in the speech of words or expressions. Armed with sound intensity, sound frequency, and duration (Negara et al., 2020:757)

Prosody or suprasegmental elements are high low sound (*tone*), weak hard (*pressure*), short length (*tempo*), and silence (*pause*) (Owren, 2008) that accompany a speech. A utterance

will be easy for the listener to understand because the speaker can put pressure on parts that are considered important (Sugiyono, 2003). explains that prosody is a phonological characteristic that includes more than one segment in the speech continuum (Isam & Awal, 2012). Yallop and Clark, prosody is also intended as the rhythm, pressure, and intonation of an utterance (Widagdo & Yustanto, 2019)

The field of Linguistics that analyzes the sequence of sounds of the language is called phonology, fon: sound, and logi: science. The object of study of phonology is distinguished into phonetic and phonemic. Phonetics studies the sounds of a language without paying attention to whether the sound has a function as a differentiator of meaning or not and whether the sound contains emotional elements that can bring about changes in a state (Magdin et al., 2019). Phonemics studies the sounds of a language by paying attention to the function of sounds as a differentiator of meaning. Phonetics will attempt to describe the differences in these sounds as soon as they explain the causes, for example, pulmonary and new examples of phonemic study targets.

A syllable is the smallest rhythmic in an utterance or sequence of speech sounds (Suryani & Darmayanti, 2012:58). One syllable usually includes one vowel or one vocal and one consonant or more. Syllables are the most loud sequence of sounds (peaks of loudness: sononitas, which usually fall on a vocal) that can be accompanied or not by other sounds in front of it, behind or at the same time in front of and behind it, occurring due to the presence of a resonant chamber in the form of a mouth, nasal cavity, or other cavities inside the head and chest. The sound that uses the most resonance is the vocal sound (Melayu & Reconstru, 2022: 194). For this reason, what can be called syllabic sounds or silabis peaks are vowel sounds (Retno Ningsih, 2020:423). The vowel sound is always probably the peak of silabis or or the peak of loudness in a precept. However, in a particular rhythmic (Yuliati & Unsiah, n.d.: 6), a consonant, both the voiced and the Introductory To Ashwat Science does not, have the possibility of also being the peak of silabis. Determining the syllabel limit of a word is sometimes a bit difficult because determining the limit is not only a matter of phonetics, but also a matter of phonemics, morphology. (Lafamane, 2020)

Pause in Arabic is closely related to waqaf. The meaning of waqaf is to cut off (Wirdati et al., 2020:372) the pronunciation at the end of a word'. (Suparyanto dan Rosad (2018:2) when the end of the word berharakat, waqaf-kan with breadfruit is read *sukun*, that is, every word that ends with a non-letter illah (*yes, waw, and alif*). (Masnur Muslich, 2012:149) With this waqaf, a word usually ends with a consonant. Waqaf for the faithful end of this word also acts on the word which tealh is composed into a phrase and a word that is the end of a sentence. In accordance

with this way, the words fahmun, fikrun, shubchun are read with fahm, fikr and subch. When the final letter of a word is a syllable word, it is waqaf-kan with breadfruit. This also applies to the word mu'tal, which is a word whose final letter is alif, wawu, or ya'. An example of a word ending in breadfruit is a's-salamu'alaikum. The final letter of the word is the breadfruit mim. For this reason, the waqafan is with the breadfruit mim. As for words ending in the letters alif, wawu, and ya', for example the word dunya دنیا fatwa فتوى meaning معنى pe-waqf-annya with harakat before the letter. (Marlina, 2019:149)

Praat audio is a freeware program for the analysis and reconstruction of acoustic sound signals. To know the high and low tones, morphemes and phonemes in a sound vibration (Luhur Wicaksono, 2016:17), and can analyze, synthesize, manipulate speech according to the height of the lace frequencies of speech waves. (Magdin et al., 2019)

The purpose of this study was to determine the articulation of Dr. malik husain sya'ban speech and measured vibration and pause, so that articulation pauses in speech intonation can be known through analysis with pratt audio application media (Suryani & Darmayanti, 2012:54), When a sound is taught, it consists of several syllables whose breathing pressure rises and falls on vowels and consonants. (Medan, 2008)

Method

This study uses qualitative descriptive analysis techniques in analyzing the results of observations made, then transkriped and then analyzed and data taken from the researcher's observations in the lecture of shaikh Dr. malik husain sya'ban. Technical analysis using the praat application, before analyzing using the praat program (Krasono, 2015). In this study using the approach of supramental phonetic theory and acoustic phonetics (Yuliati & Unsiyah, n.d. 5).

Hayward (2000), experimental phonetics includes various studies on speech using instruments. That is, the instrument is used to visualize some aspects of the speech that occurs. For example, if we use a tape recorder to repeatedly hear utterance, it cannot be called part of experimental phonetics. However, if the tape recorder is connected to a computer and used to perform acoustic analysis of the utterance, the activity can be categorized as experimental research. For this reason, experimental phonetics is often called instrumental phonetics. (Suryani & Darmayanti, 2012: 54), the initial stage of the recording results is transferred to a video player program in a laptop that is equipped with the VLC media player program. By using the VLC programm the sound media player contained in the file, after that it is cut out the parts of sentences and videos needed to be used as research data.

Results and Discussion

1. Definition of Mafsal (*Pause*)

A pause is a short stop time between two activities (*Big Dictionary of Indonesian*, 2011) A pause is a stop (Wirdati et al., 2020:372) that marks the terminal boundary of a sentence's intonation. Meanwhile, the joint is a transition from one sound to another with a momentary stop. Pause is a short silence between words or between several syllables in a speech with the aim of indicating the position of ahir lafadz or syllable and then will restart the speech

A pause or joint is the breaking of a current of segmental sounds when taught by the speaker. As a result, there will be a jolt between the disconnected sounds (Krasono, 2015:755). That silence can be in the position of the beginning, the middle and the end of the utterance. The initial silence occurs when the sound is about to be taught (Widagdo & Yustanto, 2019:696), for example when it says the sentence *hadza kitaabun* there is an infinite silence before. The middle silence occurs between the utterances of words in a sentence, for example between the utterances of the words *hadza and kitaabun on hadza kitaabun*: or inter-syllable utterances, for example between the syllables *ha* and *dza* in the word *hadza*, although the silence is very short. The final silence occurs at the end of the utterance, for example the final utterance of the sentence *hadza kitaabun* there is infinite silence afterwards. (Yakop Colin and Clark, 1991)

Pauses or joints with respect to the cessation of sounds in the flow of speech (Susiaty, 2020:3). It is called a pause because of the presence of the stop, and it is called a joint because it is in the place of the stop that the connection with the segment of the utterance occurs. This pause can be full or temporary. Pauses, joints or junctures concern the stops of sounds in the language. A segmental sound in a syllable, or sentence must be accompanied by a suprasegmental sound characterized by a stop process in Chapter 10 Pause 149 here and there it is called a pause or joint. One language with another is different. Some are clear and some are unclear

There are several other namings to this topic of discussion as put forward by sound science researchers such as انتقال (*displacement*) فاصل (*Separator*), and سكتة (*briefly silent*). It is called فاصل or سكتة because to indicate that مفصل (*pause*) is part of the silence of the voice in speech. It is called انتقال (*displacement*) because it indicates that the pause is part of the silence of the voice in speech at the same time. (Marlina, 2019)

Pauses or joints with respect to the cessation of sounds in the current of speech. It is called a pause because of the stop, and it is called a joint because it is in the place of the stop that there is a connection between the segments of one another. This pause can be full and can also be temporary. It is usually distinguished the presence of an inner or internal joint of the juncture and an outer joint or open juncture. (Chaer, 2007)

The pause occurs between two linguistic forms, both between sentences, between fractions, between words, between morphemes, between silaba, and between phonemes. The break between the two higher linguistics. The pause between sentences is longer in silence than the pause between phrases. The pause between phrases is longer when compared to the pause between words. so it is and so on. (Muslich, 2008)

2. Characteritics of the Mafsāl (Pause)

In the book of Ulum- Lughowiyah Al quds Open University (*Noor-Book.Com* مدخل إلى نظرية 2 المعرفة . Pdf, n.d.) , explains that there are three code formulations used in analyzing pauses (Susiati, 2020:4), first, by using the code (/) to mean high sound, secondly, using code (//) to mean flat sound, and finally by using the hashtag code (#) for low voice types.

يُظهر المفصل الخارجي الحد الأكبر المقطع في هذه الحالة يتم تمييزها عادة

- يتم تمييز فترات التوقف المؤقت بين الكلمات Phrase في العبارة بشرطة مائلة واحدة (/)
- يتم تمييز فترات التوقف المؤقت بين العبارات Clause في الجملة بشرطة مائلة مزدوجة (//)
- وقفة بين الجمل في الخطاب discourse ومعلمة على شكل صليب مزدوج (#)

In this study, data collection was carried out using Youtube media from the video lecture of Dr. Malik Husain Sya'ban, furthermore all data obtained were recorded, and classified based on the rules of pause or mafsāl on *Ulumul al-Lughoh* and analyzed using a praat (Heryono, 2019:48) application to see low and high notes, pressure, and intonation (Abdul Chaer, 2557) on Dr. malik husain sya'ban's lecture. In Dr. malik husain sya'ban:

الحمد لله رب العالمين وفضل الصلاة واتم التسليم على سيدنا وحبينا محمد صلى الله عليه وعلى اله وصحبه وسلم تسليما كثيرا . ايوه الاخوه الله سبحانه وتعالى خلقنا و اى اى خلقنا و الاجدنا من العدم و مغامرنا و سواب النعام كمه ذلك من اجل ان نعبده سبحانه وتعالى قال عع وجل " وما خلقت الجن و الإنسا الا ليعبدون "

فاعباده اسم جامع لكل ما يحبه الله تعالى ويرضاه من الاقوال النافعه والاعمال من الاقوال والاعمال الظاهرة والباطنة والاعمال الظاهرة هي ما يفعله الانسان ويظهر لناس. والاعمال الباطنه هي الاعمال التي في القلب و يتتبع عليها الاعلام الغيوب سبحانه وتعالى.

(Brief Lecture of Shaikh Dr. Malik HUSain Sya'ban, n.d.)

3. Results of Mafsal (pause) and intonation measurements using audio praat

After listening to the speech of Dr. Malik Husain Sya'ban, the intonation pauses (Mafsal) on the lecture viewed from the application preat audio analsis as follows:

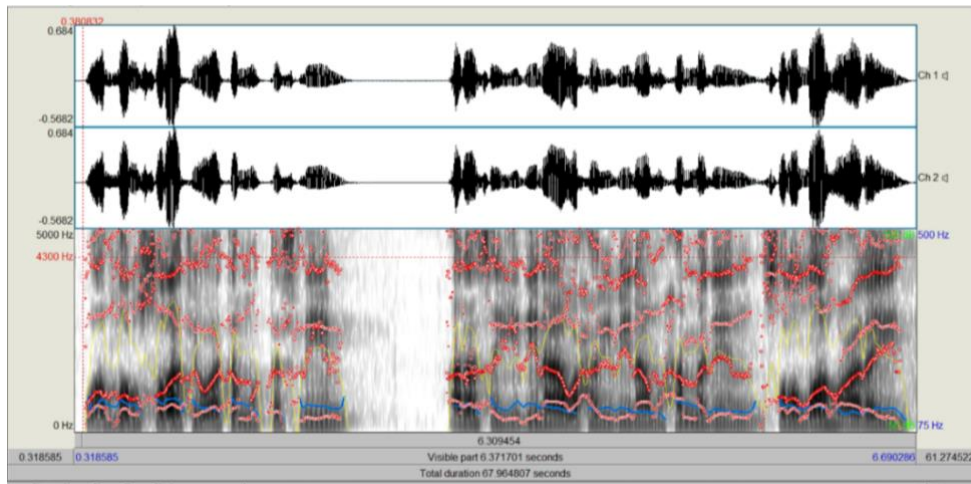


Figure 1. Sound Intonation Waves using Praat

Table 1. Sound Frequency Units

Speakers	(pitch) Hz	(Spectrum) Hz	Intensity dB	Quantity Pause (Duration)	Phrases/sentences
Dr. shaikh Malik Husain Sha'ban	131.24054312	4976.93725878	72.6941154	2.093830/s	الحمد لله رب العالمين
	180246 Hz	2555 Hz	1439015 dB		وافضل الصلاه واتم التسليم
	124.21112252	4941.21239533	72.2612180	3.541243/	على سيدنا وحبيبنا
	170212 Hz	3728 Hz	6076846 dB	0.282/s	محمد صلى الله عليه
	124.31142785	2744.13329323	71.4470222	3.527190/	وعلى اله وصحبه وسلم
	987498 Hz	0874 Hz	5290558 dB	0.284/s	تسليما كثيرا
	113.80014317	4012.36594566	74.3931644	0.969626/s	ايوه الاخوه
	906205 Hz	42285 Hz	1644617 dB		
	133.22876898	4959.07482705	75.6317969	1.981410/s	الله سبحانه وتعالى
	092306 Hz	8142 Hz	0653975 dB		
	132.21773627	4959.07482705	74.0739902	1.292835/s	خلقتنا
	333008 Hz	8142 Hz	85473 dB		

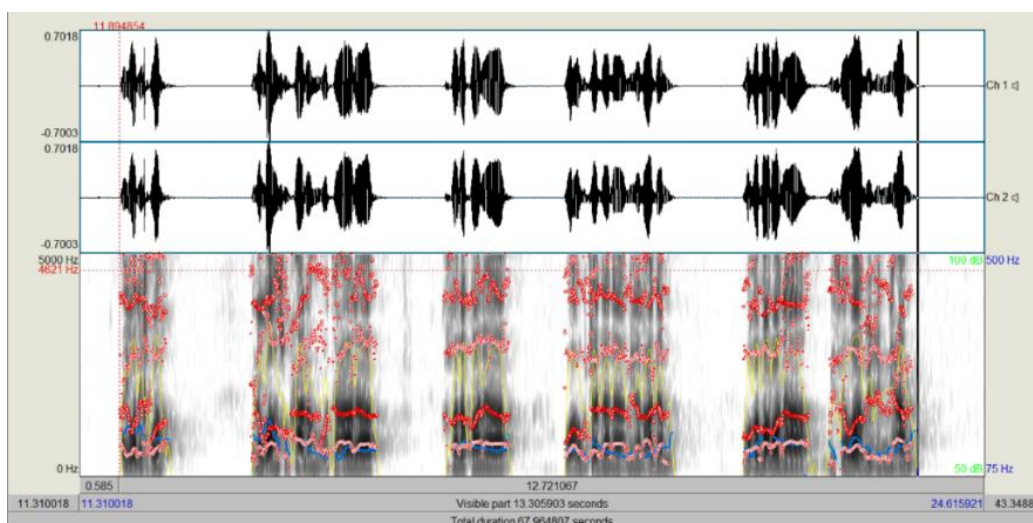
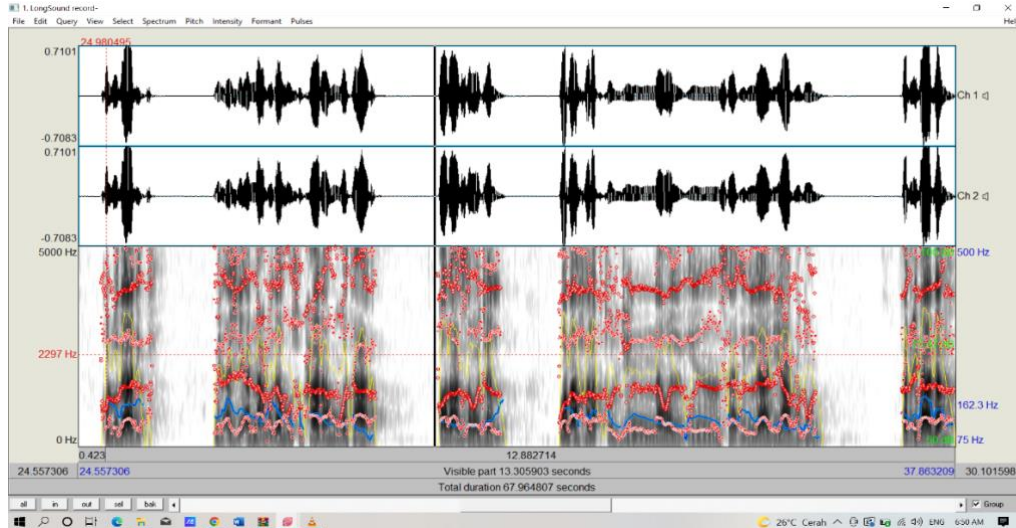


Figure 2. Sound Intonation Waves using Praat

Table 2. Sound Frequency Units

Speakers	(pitch) Hz	(Spectrum) Hz	Intensity dB	Quantity Pause (Duration)	Phrases/sentences
Dr. shaikh	124.09253516	4959.074827058	72.5371788	1.742516/s	اوجدنا من العدم
Malik Husain	377244 Hz	142 Hz	1790438 dB		
Sha'ban	134.94306436	4351.752148428	74.7707138	2.613774/	و مغامرنا و سواب النعام
	520517 Hz	084 Hz	9593299 dB	0.383/s	
	162.63077164	3798.016764971	75.8983557	0.843153/s	كله ذلك
	98959 Hz	267 Hz	8111006 dB		
	136.43090039	4976.937258782	73.2103572	2.564591/0.3	من اجل ان نعبده سبحانه وتعالى
	788555 Hz	555 Hz	6890324 dB	90/s	
	128.42952124	4976.937258782	75.1343030	1.089073/0.9	قال عز وجل
	492447 Hz	555 Hz	6088662 dB	18s	
	4976.9372587	129.9643965998	73.0941002	4.096319/	وما خلقت الجن و الإنسا الآ ليعبدون
	82555 Hz	9576 Hz	4680973 dB	0.244/s	



Figures3. Sound Intonation Waves using Preat

Table 3. Sound Frequency Units

Speakers	(pitch) Hz	(Spectrum) Hz	Intensity dB	Quantity Pause (Duration)	Phrases/sente nces
Dr. shaikh	147.77183020	4458.926738774	77.6556214	0.864232/s	فاعباده
Malik Husain	467928 Hz	565 Hz	6826231 dB		
Sha'ban	142.98985173	4458.926738774	74.4054382	1.229598/s	اسم جامع
	95182 Hz	565 Hz	1906138 dB		
	129.31512130	4458.926738774	75.5784013	3.365586/0.2	لكل ما يمجبه الله تعالى
	842702 Hz	565 Hz	3927145 dB	97/s	ويرضاه
	134.23842783	4458.926738774	75.9711910	1.412281/	من الاقوال النافعه
	628558 Hz	565 Hz	3793322 dB	0.708/s	
	134.15177967	4458.926738774	76.6741522	2.543512/	والاعمال من الاقوال
	957388 Hz	565 Hz	8906843 dB	0.393/s	والاعمال
	131.94487106	4458.926738774	75.9030473	1.117178/	الظاهرة
	759925 Hz	565 Hz	0669142 dB	0.895/s	
	122.79846637	4458.926738774	77.2258339	0.723706/s	والباطنة
	482055 Hz	565 Hz	2327715 dB		
	157.83304197	4458.926738774	78.3790724	1.264730/0.7	والاعمال الظاهرة
	767015 Hz	565 Hz	1339923 dB	91/s	
	154.41585849	4458.926738774	76.4053297	1.616043/ 0.	هي ما يفعله الانسان
	50169 Hz	565 Hz	1123663 dB	619/s	
	4458.9267387	128.4471335809	73.6945119	1.306887/ 0.	ويظهر لناس
	74565 Hz	9196 Hz	2678079 dB	765/s	
	176.95411822	4458.926738774	79.3006754	1.222572/ 0.	والاعمال الباطنه
	414889 Hz	565 Hz	5586887 dB	818/s	
	154.41664746	4458.926738774	77.5490149	1.264730/	هي لاعمال
	88789 Hz	565 Hz	1101704 dB	0.791/s	

	140.64730637 805798 Hz	4458.926738774 565 Hz	73.3486277 2401539 dB	1.714411/ 0.583/s	التي في القلب
Dr. shaikh Malik Husain	140.46601364 06942 Hz	4458.926738774 565 Hz	77.3757983 5465158 dB	1.946278/ 0.514/s	و يتلع عليها
Sha'ban	145.35615700 1319 Hz	145.3561570013 19 Hz	76.1605603 8283239 dB	1.679697/ 0. 595/s	الا علام الغيوب سبحانه وتعالى

After conducting analysis related to sound waves using the application of praat, the results of pitch (*tone*) and spectrum (*wave frequency*) as well as intensity (*intensity of hearing threshold*) in the lecture of Dr. Shaikh Malik Husain Sya'ban, a sound wave can be produced that corresponds to the pause / joint of temporary stops in speech acts in units of voice speech. Pitch is also referred to as the high-low unit of sound formulated as Hz, and spectrum is the frequency of sound (Utomo, 2015) produced by the speech apparatus and expressed in Hz. And The level of sound intensity is a logarithm value for comparison between the intensity of the sound to the intensity of the hearing threshold and expressed in decibels (dB). (Lesson et al., 2016). The duration of the pause (Mafsal) varies with the duration of the pause between 0, - up to 1.2 per second.

Conclusion

Pauses (Mafsal) or joints with respect to the cessation of sound in the speech current, and the application program Praat audio is a freeware program for the analysis and reconstruction of acoustic sound signals. To find out the high and low of tones, morphemes and phonemes in a sound vibration. Thus, it can be concluded that the analysis of Dr. shaikh Malik Husain Sya'ban's lectures using the praat application found that the high frequency of low tones in the content of the lecture predominantly used flat and low tones with a duration of 0, up to 1-2 per second, and the tone pitch and its frequency and intensity level touched at 1/2 db per second in the flow of speech.

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