

Generative Phonology Process of Suffix *-/əm/* in Kudus Javanese Dialect

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Abstract

This study aims to investigate the phonological process of suffix *-/əm/* existed in Kudus Javanese dialect that can be explained by Transformational Generative Theory with a distinctive feature analysis system to explain in detail the rules of the phonological process that occurs with the features involved in it. Optimality was used to determine the phonetic form (output) of a series of candidates and the obstacles that occurred in the process and supported by a speech analyzer (Spectrogram) as authentic evidence which visually described the voice form of the native speakers. The data were obtained from native speakers of Kudus Javanese dialect located in Burikan, Kudus, Central Java with observation, interview, and documentary techniques. This study also used intuitive data from the researcher as a native speaker of the Javanese dialect of Kudus. The results show that the phonological process that occurs in the Kudus Javanese dialect is the affixation with the suffix *-/əm/* to reflect the second person's ownership marker with a base word of a consonant ending, while to express the possession of a second person with a vowel ending, sound */n/* is added in front of the suffix */- əm/*. This study contributes to understanding the phonological process in a local language, especially toward a particular dialect. The implications of this study can become a reference in conducting further research on affixation and other phonological processes in different local languages to maintain the sustainability of local languages as one of the Indonesian people's identities.

Keywords: *Kudus Javanese Dialect; Phonological Process; TGT (Transformational Generative Theory); OP (Optimality)*

1. Introduction

According to Fairclough (1989), language is part of society describing linguistic phenomena, such writing as speaking, listening, or reading is exercised in a social way that will have a social impact. Language is the main component in communication in addition to other components such as gestures, tone, and so on. Therefore, the language used by a particular community will have certain peculiarities or variations depending on the community's social background, which has implications for the emergence of social dialects or geography. Bell (2013) stated that no language speaker has one style because every language speaker uses various

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languages and masters their use. In order to support local languages, Haugen defined the ecology-of-language paradigm as the study of interactions between any given language and its environment that leads to conducting screenings in the people's mother tongues (Copp et al., 2021).

Javanese is the native language of the community or people living on the island of Java. The people there are known as Javanese. Javanese is commonly used in everyday life. Javanese is respected and given a place to live and develop. Because so many word options are available in the Javanese language, one may create fascinating literary works with it. The Javanese people highly preserve the Javanese language. However, phonological and lexical changes have caused the Javanese dialect to change. Split (separation), absorption, and substitution (replacement) are examples of phonological innovations (Zulaeha et al., 2020). In Kudus society, people even have their own distinctive Javanese dialect system, which becomes the unique characteristic of the Javanese language spoken by them.

Jones (1966) pointed out that there are eight cardinal vowels articulated with the tongue and lips in a fixed position. They are four front vowels and four back vowels. The eight vowels are /i/, /e/, /ɛ/, /a/, /ɑ/, /ɔ/, /o/, and /u/. While the phonemes of Kudus Javanese dialect are the same as the Javanese language in general which consists of seven vowels, namely /i/, /e/, /ə/, /a/, /ɔ/, /u/, and /o/. According to Uhlenback (1963), the sound /ɔ/ is an allophone of the phoneme /a/, only the Kudus people have an allophone of vowel sound which is their distinctive dialect, namely for the vowel /i/ sounded /ɛ/ and the vowel /u/ sounded /ɔ/. In this matter, a quick and largely correct method of defining vowels is necessary in many areas of practical phonetics, including language education, dialect research, and many others. The most common definition of vowel sounds is based on articulatory and auditory criteria and considers the following physical factors: the position of the soft palate, the shape of the tongue, the shape of the lip, and whether or not the shape of the tongue and/or lip changes (Carley, 2019).

In terms of consonant phonemes, the Javanese dialect of Kudus is no different from Javanese in general. Thus, the language used by the people in each region has more variety of sounds or allophones than Javanese in general, especially in the vowel sounds in the final syllables of the terms they have. In addition to the variety of sounds, some people of Kudus community also has a distinctive morphological marker regarding the affixation of the suffix of the second-party ownership marker. It is suffix *-/əm/*, for the example:

Kaosem → kaos + - əm
'Kaosem kuwi apik tenan' = 'The T-shirt is really good'
[kaosəm kUwI apIk tənən]

Papanem → papan+ -əmə
'Papanem wes rusak' = 'Your board is broken'
[papanəm wəs rusak]

Based on the background above, this study can be formulated as follows: (1)

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What is the form of the suffix of the second person's ownership marker in the Kudus Javanese dialect? (2) How is the process of forming the suffix of the second person's ownership marker in the Kudus Javanese dialect? Following the formulation of research problems, the purpose of this study is to identify the forms of the Javanese dialect of the Kudus and describe the process of forming the Javanese dialect of the Kudus using Transformational Generative Theory and Optimality supported by Spectrogram as the speech analyzer.

2. Review of Literature

2.1. Review of Theories

2.1.1. Transformative Generative Grammar

Transformative Generative Grammar (TGT), a branch of language theory, includes Generative Phonological Theory. According to this grammar, the external structure is processed by the phonological component to create a phonetic image (Pastika, 2005). There are three essential elements that make up the traditional TGT theory, including phonology, syntax, and semantics. Semantic and phonological components will interpret what the syntactic component says. In this case, semantics plays a crucial role (Sembiring et al., 2023). Chomsky asserts that a sentence's inner structure may be built using the rules of phrase and lexical structure. The transformation component converts the inside structure into the exterior structure. The phonological component transforms the natal structure into a phonetic image (Douda, 2005). The phonological formula is created to map language symptoms, particularly those brought on by sound alteration symptoms. As a result, assimilation, insertion (adding a sound), deletion (a sound), and combination (coalition) are the four symptoms of sound change that the researcher organizes in the phonological formulae.

In Transformative Generative Grammar, the phonological component becomes the third component. The mechanisms that 'delete, add, and change sounds' transform Sapir's abstract phonological concept into a phonetic representation (Al-Hindawi & Al-Aadili, 2018). Phonological formulae are responsible for converting the syntax's exterior structure into a phonetic representation, or the sounds of the language the speakers use to communicate. In the study of phonology, the individual sounds that make up a word are referred to as fonts, sound units, or phonetic segments. Based on their location and method of articulation, all of these things are explained in phonology. The inner rank and the outer rank are the two levels of the phonological component. The phonetic representation, which is rated externally, is an abstraction of the inner rank. Phonological formulae connect these two levels. For instance, the word *cart* in Indonesian is pronounced [grobak] in the inner rank but [grobag] in the outer rank as spoken by Jakartans. The phonological formula is, therefore $[k] \rightarrow [g] / v - \#$.

The formula reads as follows: If [k] occurs at the end of the word (-#) and is followed by a vowel sound (v), it must be substituted by [g] in the pronunciation. A change is indicated by the arrow (\rightarrow).

2.1.2. Affixation

According to Matthews (Matthews, 1996), there are two subfields of morphology: inflectional morphology and lexical morphology (derivational morphology). The two distinct processes of derivation and inflection become the main focus in morphology (Widdowson, 1996). An inflectional affix changes a basic lexeme into a new word form. A base is transformed into a new lexeme by a derivational affix. Bybee et al. stated that some affixes, such as subject and object agreement, do not exhibit any preference for suffixing. This may be due to their historical propensity for flexible ordering (Martin & Culbertson, 2020). Morphology is typically split into two branches, namely derivation and inflection. The distinction between the two morphological processes is that whereas inflection creates the word form (grammatical word) of the lexeme, derivation creates a new lexeme. In addition, derivational affixes are irregular in their meaning, whereas inflectional affixes are always fixed in their meaning (regular) and in general rule, derivational affixes are less productive than inflectional affixes (Bauer, 2003).

2.1.3. Distinctive Features

Distinctive characteristics are also referred to as distinguishing characteristics; the term 'feature' itself has several connotations. A distinctive characteristic is anything that sets one item out from another. In language, this is considered to be a phoneme that sets it apart from other phonemes since distinctive is described as a differentiator. Four key figures specify the different sorts of distinguishing characteristics. Chomsky, Halle, Jakobson, and Trubetzkoy. These four individuals are crucial in deciding which distinctive features should be used in a language because they each have a different perspective on them. However, the use of distinctive features in Indonesia is more likely to be in line with Chomsky and Halle's theory that vocal, consonantal, high, back, low, anterior, coronal, round, tense, voice, continuous, nasal, and strident are a few examples of distinguishing traits (Li et al., 2019).

2.1.4. Optimality

The observable form of a language is said to result from the interplay of opposing constraints, according to the linguistic theory known as optimality theory (commonly shortened as OT; the second term is often capitalized). The way that OT views grammar is as a system that offers a mapping from input to output, where inputs are often seen as fundamental representations and outputs as their outer realizations. According to the optimality theory introduced by Prince and Smolensky, universal grammar offers a collection of all-encompassing constraints that assess potential structural descriptions of linguistic objects (Griffiths, 2019). In order to have any chance of being universal, these constraints must be straightforward and generic in nature. They are presumed to be extremely strong universals since they are present in every grammar.

2.2. Review of Previous Studies

Several studies have been carried out in affixation of morphological and

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phonological analysis, especially in dialect. Hermawan and Haryanto examined the pronunciation mistakes produced by *Poltekkes Kemenkes Semarang Diploma III Nursing Study Program Tegal* when the students created a vlog. They discovered that some consonants, vowels, and diphthongs were mispronounced (Hermawan & Haryanto, 2022). Leminem et al. (2019) provided a thorough summary of the most recent findings in the study of the brain processes underlying morphological processing. The researcher incorporated a study on inflected, derived, and compound words given both graphically and acoustically in order to account for all varieties of complicated words. Pacton and Peereman (2023) employed an implicit learning scenario to test if inflected and derived forms aided in the orthographic acquisition of new, morphologically simple words ending in silent letters in 56 third-graders and 56 fifth-graders who spoke French to know that kids are sensitive to the rule of root consistency, which stated that root morphemes keep their spelling in words that are connected to one another. In this study, the new terms (like clirot with a final silent t) emerged in short tales along with a morphological form in which the root word's silent letter was spoken, thereby explaining the root word's existence of the silent letter.

Whereas, Sadhono and Hartanto (2021) conducted quantitative descriptive research whose data was gathered from the population of Wedi District, Klaten. They described the Javanese isolect which is impacted by dialectometry as the analytical tool. They also demonstrated that the Yogyakarta and Surakarta dialects are representative of and provide evidence for linguistic variation. Smith and Rathcke (2020) compared the pronunciation of trochaic terms in two varieties of British English, Standard Southern British English, and Standard Scottish English spoken in Glasgow, in accented and unaccented and phrase-final and non-final places. In comparison to SSBE, they discovered that prominence gradients for Glasgow were typically shallower in terms of intensity and duration, and there was a minimal indication of accentual lengthening of vowels in Glasgow. However, phrase-finality demonstrated comparable impacts in both dialects.

3. Methods

3.1. Design

The type of study is qualitative research because its nature is in the form of a case (Herlinda, 2022). In addition, Sutopo said that qualitative research describes meanings that focus more on quality data that can be assisted by qualitative analysis (Suarjaya et al., 2022). In this case, qualitative refers to something that contains the facts projected and described by linguistic research on the qualities of meaning, quality, or value. This method also emphasizes the observation method in the field, because the data obtained were found directly in the field. It was in Kudus, Central Java.

3.2. Participants

The research participants were the local people in Burikan, Kudus, Central Java. As a native speaker of the Kudus Javanese dialect, the researcher provided intuitive data for this study as well.

3.3. Data and Sources of Data

The data used in this study refers to the information collected from interviews or conversations with participants in Kudus, Central Java. These interviews are typically designed to gather insights into language use, phonological patterns, and related topics. The researcher used recordings and notes with participants to make the transcription. They captured the spoken language data, including various phonological features, such as sounds, intonation, stress patterns, and speech rate, incorporated with existing transcripts from previous phonological studies or linguistic databases into their research. These transcripts served as comparative data and provided a broader context for analyzing the data collected through interviews.

3.4. Data Collection

The researcher's methods for gathering data in this work include:

a. Observation

The researcher made direct observations of numerous occurrences relevant to this research in the field as one approach to getting data in the field, such as taking a broad picture of the Javanese dialect pattern in Kudus society and paying attention to those who may be employed as informants.

b. Interview

The researcher gathered data by directly and in-depth questioning respondents about the requirements for the respondent's study in this area.

c. Document Analysis

The researcher's collection, research, and analysis of the information was obtained through research-related notes.

3.5. Data Analysis

When conducting qualitative research with interviews, data analysis typically involves a systematic and iterative process of organizing, categorizing, and interpreting the interview data. The general method for analyzing the data, including 1) transcription by listening to the interview and converting the spoken words into written text manually or by note-taking equipped with face-to-face technique, 2) familiarization by reading through the interview transcripts multiple times to gain a comprehensive understanding of the data, taking notes, highlighting key points, and identifying emerging themes or patterns which were supported by the researcher's intuitive data, 3) initial observations by making initial observations about the data based on the transcriptions, then looking for recurring phonetic or phonological phenomena, such as specific sound patterns, phoneme inventories, allophonic variations, or prosodic features, 4) data reduction by condensing and summarizing the data within each category, selecting main representative points while preserving the key ideas, 5) phonological analysis by describing the phonological process of adding the suffix *-/əm/* with distinctive features, analytical techniques to find out the constraints or constraints in the formation of nouns with the ending *-/əm/* in the Javanese dialect of Kudus with the theory of Optimality presented in a table.

The TGT (Transformational Generative Theory) theory and a unique feature

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analysis system will be used to analyze the phonological process of adding the suffix *-m* to nouns as well as other variations of forms that occur in the phonological process and to explain in detail the rules of the phonological process that occurs with features. It involves using OP (Optimality) to identify the phonetic form (output) of a number of candidates and the difficulties that arise. In addition to strengthening the results of the analysis of the two previous data analysis techniques, the results of the word formation will also be visually proven using a spectrogram that can describe the graphic range of the phonetic waveform and the resulting frequency per sound (phoneme). It visually depicted the shape of a Kudus Javanese dialect native speaker.

4. Finding

The phonological process found in the Javanese dialect of Kudus is the insertion or addition of a consonant sound to the affixation (suffix) of ownership markers of the second party. Observation of the data that has been collected shows the existence of this phenomenon. The explanation of the morphological markers in the affixation process is as follows.

4.1. Generative Transformation System (Distinctive Feature)

The addition of any affixes in the Javanese language, whether in the form of suffixes, insertions, suffixes and or a combination of prefixes and suffixes, will be influenced by the phonemes of the basic form that will be attached or side by side with these affixes, including the Javanese dialect of Kudus. The addition of the phoneme *-/əm/* as the underlying form of the suffix marking the ownership of the second party will experience an additional sound or phoneme */n-/* if the final phoneme of the root word attached is a vowel. The basic nouns used for expressing the ownership of a second party in the Kudus Javanese dialect are shown in the following orthography data:

[nggonem]	'yours'	[ngguyunem]	'your laugh'
[mbokem]	'your mother'	[wedangem]	'your drink'
[klambinem]	'your cloth'	[untunem]	'your teeth'
[mbokem]	'your mother'	[matanem]	'your eyes'
[tasem]	'your bag'	[banyunem]	'your water'
[seganem]	'your rice'	[tamunem]	'your guest'
[motorem]	'your motorcycle'	[uripem]	'your life'
[omahem]	'your house'	[ajinem]	'your value'
[ambunem]	'your smell'	[kathokem]	'your pants'
[atinem]	'your heart'	[kipasem]	'your fan'
[desanem]	'your village'	[watunem]	'your rock'

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These are some examples to analyze:

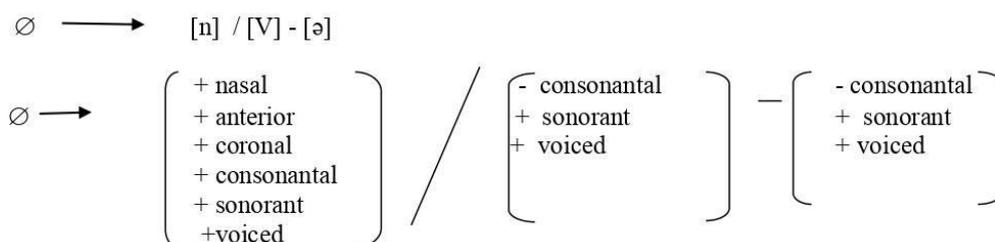
'Aku arep nyilih kipasem' = 'I want to borrow your fan'

'Kipas' (fan) is a noun root or noun root that acts as a stem that has a consonant ending phoneme /s/, while *-/əm/* is an inflectional ending or a suffix that appears as a grammatical requirement to express the ownership of a second party. The word *'kipasem'* itself has a syllable structure of CV.CV.CV, where C represents a consonant, and V represents a vowel. The first syllable consists of the consonant-vowel sequence /ki/. The onset is the voiceless velar stop /k/, and the nucleus is the lax close front unrounded vowel /ɪ/. The second syllable is formed by the consonant-vowel sequence /pa/. The onset is the voiceless bilabial stop /p/, and the nucleus is the near-open front unrounded vowel /æ/. The third syllable is formed by the consonant-vowel sequence /səm/. The onset is the voiceless alveolar sibilant /s/, and the nucleus is the open-mid front unrounded vowel /ɛ/. The coda is formed by the voiced bilabial nasal /m/.

However, when the speaker utters a sentence with a basic noun ending in a vowel phoneme belonging to a second party, there is an insertion of the /n/ sound between the final phoneme of the root word attached to the ending *-/əm/*

'Seganem wis adhem' = 'your rice is cold'

'Sega' (rice) is a noun root that acts as a stem that has a vowel ending phoneme /a/, while *-/nəm/* is an inflection ending for the second party's ownership marker, where *-/əm/* is the underlying form with the addition of /n/ in front of it. The word *'seganem'* has a syllable structure of CV.CV.CV, where C represents a consonant, and V represents a vowel. The first syllable is formed by the consonant-vowel sequence /se/. The onset is the voiceless alveolar sibilant /s/, and the nucleus is the open-mid front unrounded vowel /ɛ/. The second syllable consists of the consonant-vowel sequence /ga/. The onset is the voiced velar stop /g/, and the nucleus is the near-open front unrounded vowel /æ/. The third syllable is formed by the consonant-vowel sequence /nəm/. The onset is the voiced alveolar nasal /n/, and the nucleus is the open-mid front unrounded vowel /ɛ/. The coda is formed by the voiced bilabial nasal /m/. The phonological process of inserting or adding the sound /n/ to the suffix *-/əm/* can be explained by the rules of distinctive features as follows:



In general, the Javanese dialect of Kudus has very prominent characteristics in

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the appearance of /ə/ (*pepet*) as a middle vowel (between the close-mid and open-mid), the position of the tongue in the middle (central), not tense (-stress), and not round(-round); which is then closed with /m/ which is a bilabial nasal consonant. Suffix *-/əm/* was often produced as a schwa sound which is softer and weaker than other vowel sounds. It is considered as a mid-central vowel produced with the tongue in a neutral or central position in the mouth. Schwa sound is not usually considered a distinct phoneme. Instead, it is often analyzed as a reduced or unstressed vowel that occurs in certain syllables. Only in unrested situations does the schwa sound appear.

The schwa /ə/ sound value is shared by all six of the vowel letters in English: a, e, i, o, y, and u. The identity of the derivational suffixes frequently determines where the strong stress and schwa occur (Weber, 2018). In English, the schwa sound can exhibit some allophonic variation depending on its phonetic context. The surrounding consonant sounds can influence it. It also happens in Kudus Javanese dialect. The phonological rule described previously does not apply if the noun root ends with a vowel sound because at the suffix *-/əm/*, the sound /n/ will be inserted first between the noun root and the suffix *-/əm/*. The nasal sound /n/ is inserted between the vowel sound and the sound /ə/, which is located at the end of the syllable of the word. This addition is caused by adjusting the initial phoneme sound of the *-/əm/* suffix with the final phoneme of the attached root word. Javanese people generally cannot add affixes beginning with a vowel sound to the basic words that also have vowel phonemes. In Javanese, including those spoken in the Kudus dialect, an affix cannot have the same type of sound (vowel or consonant) as the phoneme it is attached to. For example, the suffix *-/ipun/* cannot be attached to a root word with a vowel ending as well as the noun *adhi* 'little brother/ sister'.

Adhi 'little brother/sister' + *-em* → * *adhiem* (unacceptable)

The vowel sound should be followed by nasal /n/, which must be both sonorant and voiced. The addition of this sound cannot be replaced by any other sound in this case of *-/əm/* suffixation, such as the sound /m/. This is because even though the sound /m/ is both nasal and voiced like /n/, the sound /m/ is not coronal (non-coronal) with a bilabial type of articulation place that cannot be adapted for pronunciation of the final vowel phoneme of the word base that precedes it. Although /n/ is a consonant sound, the sound /n/ has a place of articulation in the hard palate by lifting the tongue blade (coronal). It is possible to pair it with the end of the vowel of the root word that precedes it in harmony. This causes the sound /n/insertion between the root word and the suffix *-/əm/* in the Kudus Javanese dialect.

4.2. Optimization Theory

In the Javanese dialect of Kudus, *-/əm/* is the underlying form of the morpheme to mark the ownership of a second party. The suffix *-/nəm/* appears after the vowel sound at the end of the noun it has, as in the following data.

Table 1. Coronal nasal insertion /klambɪnəm/

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/ klambi/	FAITH Stem	Faith V	Faith C	PEAK
klambɪəm				*!
klambəm	*!	*		
klambɪnəm			*	*

Based on Tabel 1, peak violations (PEAK) and stem loyalty violations (FAITH STEM) have fatal violations which were marked with *!. While consonant loyalty violations (FAITH C) and vowel loyalty violations (FAITH V) have the least serious violations which were marked with *.

The input of the tableau above is / klambɪəm /. Candidate / klambɪəm/ is not acceptable because it violates the complex, i.e., there cannot be two vowels side by side in the final syllable, or it can be said that the final sound of the basic word in the form of a vowel phoneme cannot be attached with a suffix that is also an initial vowel phoneme. The candidate /klambəm/ is also not acceptable because it violates its loyalty to the stem where the basic word *klambi* 'cloth' is removed from the final phoneme in the form of a consonant sound to be attached with a vowel initial phoneme ending, but the results in the word being meaningless so that it still cannot be output that cannot be produced. The candidate received as output is /klambɪnəm/ for violation of consonant fidelity with the addition of a low nasal between the final sound of the noun root (noun root) and the initial sound of the suffix *-/əm/* allowed by having the same voiced phoneme (voiced) and sonorant. As for the violation of the fidelity of the articulation place caused by the process of aligning the nasal sounds to the vowel sounds that follow it is also allowed because it is also due to the similarity of the low-voiced sounds.

4.3. Voice Analysis with Speech Analyzer

The presence of the addition of the sound /n/ at the beginning of the suffix of the ownership of the second marker *-/əm/* in the Javanese dialect of Kudus can be proven utilizing a spectrogram. In phoneme /klambɪnəm/, the voiceless stops /k/ and /p/ (/k/ in 'klam' and /p/ in 'pem') would exhibit a brief period of high-frequency energy known as a 'burst' followed by a release. These bursts would appear as vertical striations in the Spectrogram. The vowels /æ/ in 'klam' and /ɛ/ in 'nem' would exhibit distinct formant patterns. Formants represent resonant frequencies in the vocal tract, and their presence would be visible as dark horizontal bands or areas of concentrated energy at specific frequency ranges. The nasal consonants /m/ in 'klam' and 'nem' would produce a low-frequency resonance called a 'nasal murmur' during their articulation. The nasal murmur would appear as a dark and continuous region of energy at lower frequencies on the Spectrogram. Silence intervals: Between each segment or syllable, there would be periods of relative silence or reduced energy. These would be visible as gaps or areas of low energy on the Spectrogram. In Figure 1 shows that there is a nasal insertion of /n/ between the sound of [ɪ], which is the final sound of the noun root that is owned and the suffix *-/əm/* at 1.38

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millisecond seconds with a frequency of 150 Hz.

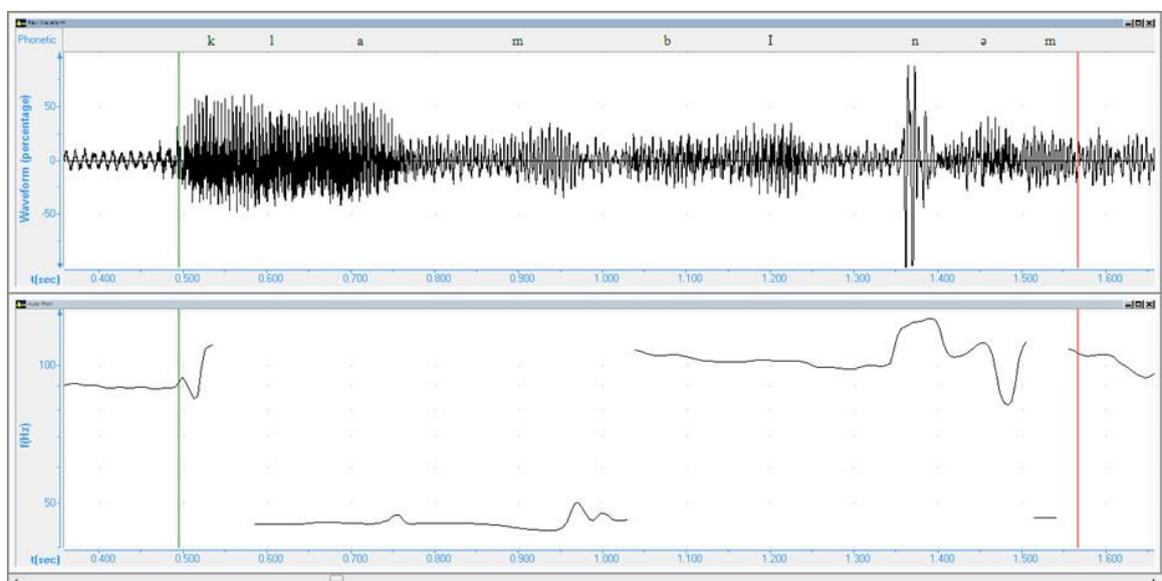


Figure 1. The Illustration of the phoneme /klambəm/ drawn by Spectrogram

The /n/ sound did not appear in the speech analyzer when the word /mbokəm/ was spoken. There is no nasal sound /n/ between the consonants /k/ which is the final sound of the noun root and the ending *-/əm/*. It is shown in Figure 2.

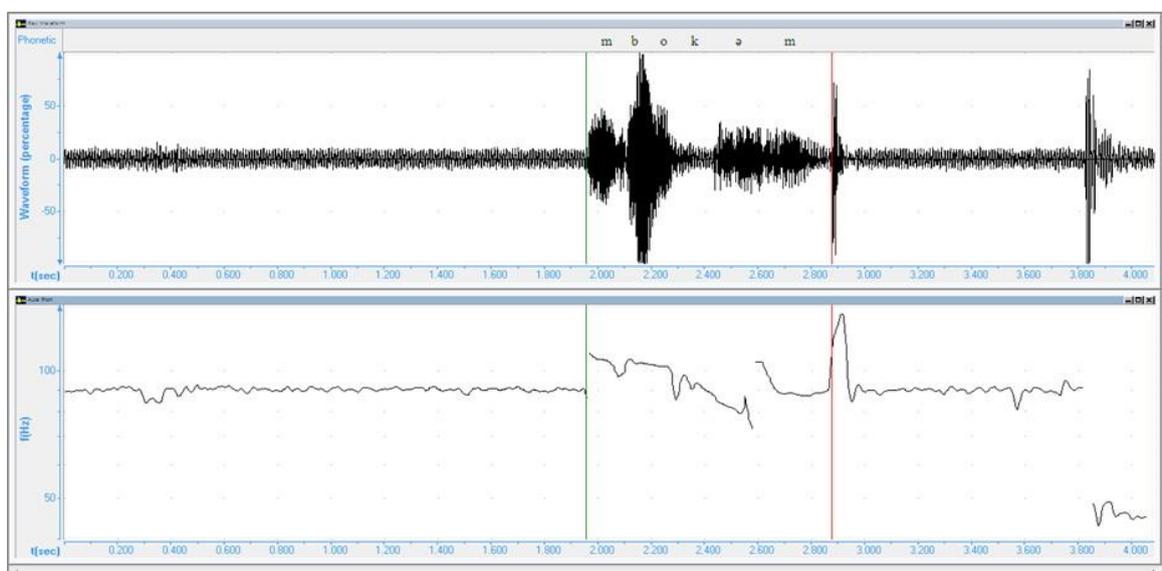


Figure 2. The Illustration of the phoneme /mbokəm/ drawn by Spectrogram

Based on Figure 2, the phoneme /mbokəm/ has voiced bilabial nasal consonants /m/ in 'mb' and the final /m/ in 'əm' would produce a continuous low-frequency resonance known as a 'nasal murmur.' This would appear as a dark and persistent

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region of energy at lower frequencies on the Spectrogram. Meanwhile, the voiceless bilabial stop /b/ in 'mb' and the voiceless velar stop /k/ in 'kem' would exhibit brief periods of high-frequency energy known as 'stop bursts' followed by releases. These bursts would appear as vertical striations in the Spectrogram. The mid-back rounded vowel /o/, sometimes the diphthong /oo/ occurred in 'bo', and the open-mid front unrounded vowel /ə/ in 'em' would exhibit distinct formant patterns. Formants represent resonant frequencies in the vocal tract, and their presence would be visible as dark horizontal bands or areas of concentrated energy at specific frequency ranges. In addition, there would be periods of relative silence or reduced energy among each segment or syllable which is visible as gaps or areas of low energy on the Spectrogram.

5. Conclusion

The results of the phonological process analysis, which is distinct in identifying the obstacles that the Kudus Javanese dialect's word formations encounter, along with the visualization of the phonetic waveform and the frequency in each phoneme, show that Kudus Javanese dialect used to add the suffix *-ə̃m/* to express the ownership of the second person with a base word with a consonant ending, while to express the possession of a second person with a vowel ending, the sound /n/ is added in front of the suffix *-ə̃m/* since it is not common for Javanese people in general, including Kudus, to pronounce the end of the basic vowel sound followed by an initial phoneme ending that is both vowels. Therefore, it is not acceptable if two vowel sounds are spoken in sequence. A phonological study regarding the suffix *-ə̃m/* in Kudus Javanese dialect which was strengthened by spectrogram analysis becomes the novelty in this study. Future research is expected to review other phonological processes, including prosody, as one of the strategic efforts to preserve national culture and heritage in the language field, particularly the dialect spoken in Central Java.

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