



## Analysis on the Morphophonemic Changes of the Cebuano-Binisaya of Davao del Norte

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Submitted: 07 Jan 2025  
Revised: 03 Feb 2025  
Accepted: 13 Mar 2025  
Published: 26 Mar 2025

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### ABSTRACT

Language variation analysis and studies are becoming increasingly evident at different linguistic levels. These variations can manifest at the morphological and phonological level, highlighting the uniqueness of the language spoken in a particular area. These linguistic features of variations can be observed in the morphophonemic changes in the Cebuano-Binisaya language of Davao del Norte. This paper describes the morphophonemic changes in the Cebuano-Binisaya language spoken in Davao del Norte. The main objective of this study is to analyze and document the morphophonemic changes of Cebuano-Binisaya in Davao del Norte, which covers three (3) cities and eight (8) municipalities. The descriptive linguistic method was used to document the language, and the dialect geography approach was utilized in analyzing and presenting data. The data were collected through personal interviews and eliciting material containing 280 lists by Swadesh, and there are 330 informants from all the cities and municipalities. Based on the results, Cebuano-Binisaya in Davao del Norte exhibits seven (7) substitutions of the phoneme, five (5) deletions of the phoneme, one (1) metathesis, and one (1) assimilation. The limitations of results indicate that the language spoken in Davao del Norte is a dialect of the same language exhibiting a minimal range of morphophonemic changes. The results also suggest that Cebuano-Binisaya in Davao del Norte exhibits linguistic consistency, is influenced by cultural and historical aspects, and serves as a social identity. It is grounded in the emergence of possible dialectal isoglosses, revealing its dynamics.

**Keywords:** Cebuano-Binisaya, Davao del Norte, morphophonemic change, variation

**How to cite:** Abucay, S. M. R. (2025). Analysis on the Morphophonemic Changes of the Cebuano-Binisaya of Davao del Norte. *Davao Research Journal*, 16(1), 133-145. <https://doi.org/10.59120/drj.v16i2.341>



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## INTRODUCTION

Language encompasses all forms of spoken communication, while a dialect refers to variant forms of the same language. These variations manifest at all linguistic levels—phonology, morphology, syntax, semantics, and lexicon (Hasan, 2013)—and play a crucial role in the emergence of distinct dialects (Hicky, 2003). For example, Cebuano, a variety of the Filipino language, illustrates how phonological and morphological factors interact to create dialectal differentiation. In this context, the study of morphophonemics becomes essential, providing a critical framework for analyzing the dynamic interaction between phonological and morphological elements within words (Hayes, 2009). Specifically, phonemes can be shaped by morphological processes, and conversely, phonological conditions can influence morphological elements. Thus, these morphophonemic phenomena affect individual words and contribute to larger patterns of linguistic variation across different dialects and regions.

In addition to these internal linguistic factors, the evolution of language and its variation are influenced by various external factors, such as technological advancements and geographical contexts. For instance, Andinis et al. (2024) underscore the role of technology, including social media and cellphone usage, in facilitating language change, particularly in coining new words. Moreover, geographical and social factors play an integral role in linguistic evolution, as Romaine (2000) notes, influencing how languages morph and adapt within specific contexts. A case in point is the Philippines, an archipelagic nation home to over 140 distinct languages (Komisyon sa Wikang Filipino, 2024), which offers a prime example of how geographic separation fosters morphological diversity within languages, including Cebuano.

Cebuano is one of the major languages spoken in the Philippines, also called Bisaya, Cebuano, Sugbuanon, or Visayan (Eberhard et al., 2024). It is spoken across regions in Bicol, Masbate, Mindanao, and the Visayas. Despite its widespread use, Cebuano exhibits distinct morphophonemic variations that arise from local phonological and morphological factors. For

example, Zorc (1977) classifies Cebuano under the Cebuano subgroup of Bisayan dialects, along with Boholano and Leyte, while McFarland places it within the South Bisayan subgroup, alongside Surigaonon, Butuanon, and Tausug. These classifications illustrate the intricate relationship between phonology and morphology that contributes to Cebuano's regional varieties.

Furthermore, recent data from the Philippine Statistics Authority (PSA, 2020) highlights a significant distinction between Cebuano and Bisaya/Binisaya speakers. Cebuano, with 8,683,525 speakers (8% of the national population), ranks as the third-largest linguistic group in the country, while Bisaya/Binisaya, with 15,522,998 speakers (14.3%), holds second place. This distinction, reflected in the PSA's categorization of Cebuano and Bisaya Binisaya speakers, points to crucial linguistic factors contributing to regional variations within Cebuano, particularly in Davao del Norte. Zorc's (1977) identification of thirty-six distinct dialects within the Bisayan language group further underscores Cebuano's internal diversity.

In Davao del Norte, a province of three cities and eight municipalities, Cebuano-Binisaya is the lingua franca. Among the cities of Davao del Norte are Island Garden City of Samal, Panabo City, and Tagum City, the province's capital. The eight municipalities include Asuncion, Braulio E. Dujali, Carmen, San Isidro, Kapalong, Talaingod, New Corella, and Sto. Tomas. The 2020 PSA report reveals that 59.71% of Davao del Norte's population speaks Cebuano-Binisaya, totaling 679,803 individuals. Given this high prevalence of Cebuano-Binisaya in the province, it raises the possibility of unique morphophonemic changes that distinguish it from other Cebuano varieties spoken in different regions of the Philippines.

Moreover, the Cebuano language is characterized by numerous dialects, each exhibiting distinct phonological, morphological, and lexical features. In this light, the variety spoken in Davao del Norte presents an interesting case for investigating morphophonemic changes, particularly how these changes affect both phonemes and morphemes. Despite its widespread use, there remains a lack of comprehensive research on the morphophonemic

changes specific to Cebuano-Binisaya spoken in Davao del Norte. This gap is particularly significant considering that Cebuano-Binisaya is the lingua franca of Davao del Norte, spoken by nearly 60% of the province's population (PSA, 2020), and may feature unique linguistic features that distinguish it from other Cebuano varieties. Therefore, this study seeks to fill this gap by documenting and analyzing the morphophonemic variations in Cebuano-Binisaya as spoken in Davao del Norte and by exploring the geographical distribution of these variations across the province. Through this investigation, the study aimed to provide valuable insights into the ongoing linguistic evolution of Cebuano and enhance understanding of how regional variation influences its phonological and morphological structures.

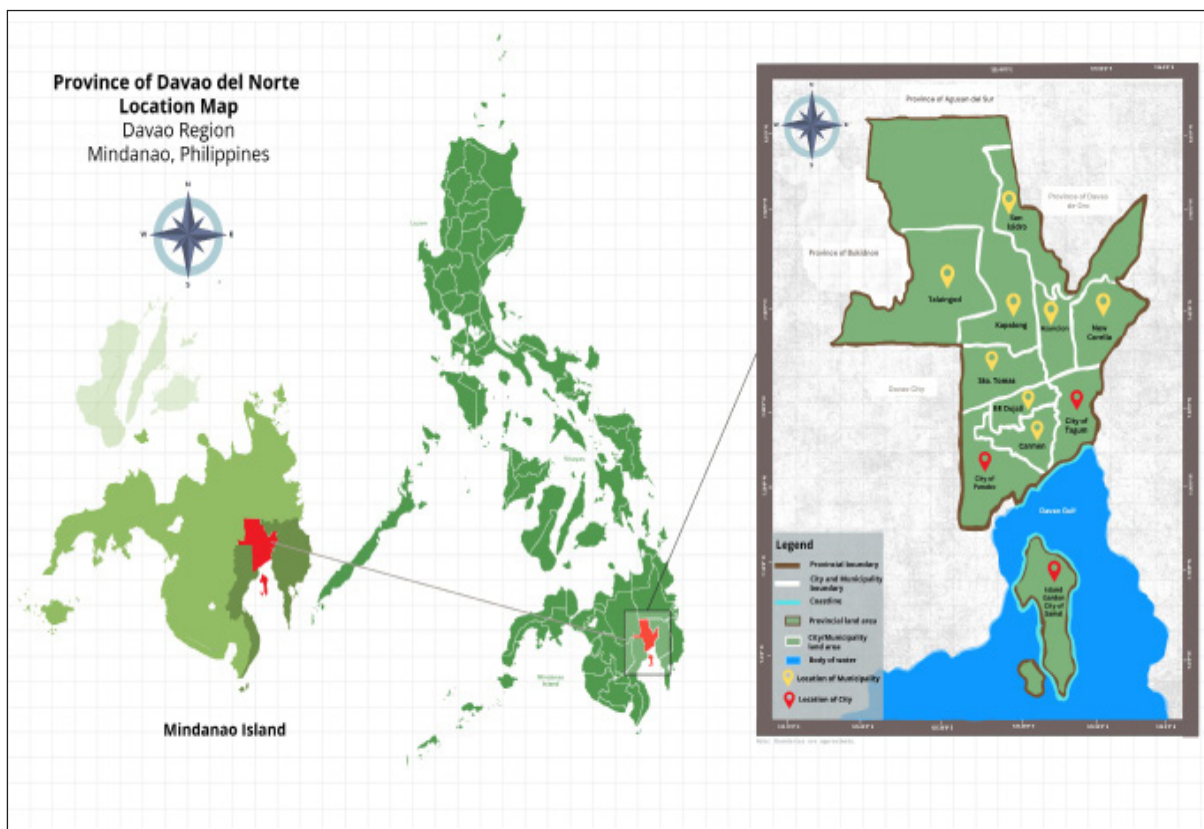
## MATERIALS AND METHODS

## Research design

This study employed a descriptive approach in linguistics to document the language. A dialectological method was used to present

and analyze the data. Dialect geography was used to analyze the morphophonemic changes of Cebuano-Binisaya across various areas within the province of Davao del Norte. The analysis of this study is grounded in structural dialectology and dialect geography.

According to Chambers and Trudgill (2004), structural dialectology began to be recognized in the 1950s with the publication of Uriel Weinreich. This approach describes dialect differences based on the system itself and not merely on phonetic transcription. This approach emphasizes that researchers should consider the phonological system of the language, not just phonetic similarities or differences, but also the analysis of dialectal differences. Since this study aims to describe the morphophonemic changes of Cebuano-Binisaya in Davao del Norte based on the phonemic level, structural dialectology was used to construct its phonemic analysis. Figure 1 shows the map of Davao del Norte, comprising of municipalities and cities; municipalities are marked with yellow locator icon, while the cities are marked with a red color.



**Figure 1.** Map of the study areas in Davao del Norte.

Using structural dialectology, the segmental phonemes that make up the Cebuano-Binisaya language spoken in the three (3) cities and eight (8) municipalities of Davao del Norte were identified and described. Using this approach, the phonological system of Cebuano-Binisaya spoken in each area of the mentioned province was also compared.

### Informants of the study

The informants chosen for this study were native speakers of the Cebuano-Binisaya language in the province of Davao del Norte (Table 1). In collecting data for this study, thirty (30) informants from each Local Government Unit (LGU) served as the primary data source, resulting in 330 informants.

**Table 1.** Summary of Informants' Profile.

LGU	Gender		Age	Employment				Total	Educational attainment <sup>1</sup>		
	M	F		Farming	House-wife	Others <sup>2</sup>	Gov't Employee		Informants	College	Sec. Elem.
Asuncion	5	25	40-64	4	13	5	8	30	3	21	6
BE Dujali	7	22	40-68	6	14	8	2	30	4	22	4
Carmen	3	27	45-83	2	17	8	3	30	7	17	6
IGACOS	14	16	45-67	0	7	14	9	30	9	16	5
Kapalong	8	22	43-73	2	8	15	5	30	4	21	5
New Corella	13	17	44-69	5	7	12	6	30	5	21	4
Panabo	9	21	42-82	0	11	15	4	30	8	17	5
San Isidro	12	18	45-81	17	5	6	2	30	4	18	8
Sto. Tomas	13	17	43-73	3	4	8	15	30	6	16	8
Tagum	12	18	45-80	0	4	20	6	30	9	17	4
Talaingod	11	19	46-84	8	12	6	4	30	6	17	7

<sup>1</sup> Educational attainment includes both graduates and current levels for college, elementary, and secondary education.

<sup>2</sup> This includes vendor, retiree, driver, dress maker, pastor, private employee, fishing, hog raiser, store owner, massage therapist, vendor, mechanic, laborer and carpenter.

They were selected from three (3) cities and eight (8) municipalities of Davao del Norte. The following criteria were considered in choosing the informants: (1) native speakers of the Cebuano-Binisaya language spoken in Davao

del Norte; (2) born and raised in the study area; (3) not a frequent mover or transient; (4) aged between 40 and 84 years old; and (5) literate, able to read and write. Table 1 shows the summary profile of the 330 informants.

### Data collection

The researcher recorded the primary data used in this study through audio recordings. Each collected data was transcribed using the International Phonetic Alphabet (IPA). A total of 280 words were utilized in the current study, based on Swadesh's word list, which was modified to suit the study's objectives. The modified list included additional words deemed significant for analysis and essential for the study, encompassing lexicons used in daily communications. Furthermore, the word list comprised terms referring to objects, people, animals, numbers, and others and words categorized as pronouns and verbs. According to Morris Swadesh, this wordlist is enough to gather metadata as it embodies words commonly used in everyday life.

Data were collected through personal interviews with informants residing in various municipalities and cities in Davao del Norte from 2022-2024. The instrument used for data gathering was an elicitation material consisting of 280-word words based on Swadesh's 200-word list, with modifications and additional words. Before scheduling the interviews, the researcher obtained permission from the Local Government Unit (LGU) and the barangay captains to interview qualified language informants. The researcher also conducted a brief orientation to the informants regarding the purpose of the study, received their consent to participate in the research, and had them sign a consent form. The data were gathered through audio-recorded interviews. The informants' responses were elicited through direct questions by providing

the equivalent lexicon of the wordlist. After the interviews were conducted during fieldwork, the data were transcribed for phonemic analysis.

## RESULTS

This section presents the observed morphophonemic changes of Cebuano-Binisaya in the province of Davao del Norte, covering three (3) cities and nine (8) municipalities. This variation in morphemes due to phonetic factors is manifested in the Cebuano-Binisaya variety of DavNor. It cannot be denied that the structure of sounds and words is a crucial component of a language system. However, there are cases where the two systems interact, resulting in the phenomenon of morphophonemic change. Due to the interaction mentioned, the pronunciation of morphemes may change or be altered entirely.

In the study of morphophonemic, there

is analysis and classification of phonological factors that affect the pronunciation of morphemes and morphological factors that affect the form of phonemes. Like other languages in the Philippines, this phenomenon has also been observed in Cebuano-Binisaya, which is spoken in Davao del Norte.

Based on the data, four (4) types of morphophonemic change are observed in Cebuano-Binisaya spoken in Davao del Norte. These are: (1) phoneme substitution; (2) phoneme deletion; (3) metathesis; and (4) assimilation.

In presenting the data, the following abbreviations for cities and municipalities are observed: Asu for Asuncion; BeD for Braulio E. Dujali; Car for Carmen; Kap for Kapalong, Iga for Island Garden City of Samal; Pan for Panabo; SaI for San Isidro; Sto for Sto. Tomas; Tag for Tagum, and Tal for Talaingod.

**Table 2.** Summary of morphophonemic changes of Cebuano-Binisaya in Davao del Norte.

Morphophonemic changes	Phoneme and/or morpheme	Number of words exhibiting morphophonemic change	Example
phoneme substitution	/t/ > /b/	1	tugnaw > bugnaw
	/ɪ/ > /j/	1	babai > babay
	/ɪ/ > /ø/	2	silaw > sulaw
	/l/ > /w/	3	dula > duwa
	/g/ > /k/	1	higut > hikut
	/j/ > /h/	1	yamug > hamug
	/d/ > /r/	1	[ka] raan > daan
phoneme deletion	/ɪ/	1	babayi > babay
	/ʌ/	1	balahibu > balhibu
	/ø/	1	nawung > nawng
	/b/	1	pambalau > pamalau
	/d/	1	hindumduman > hinumduman
	/ʌ/ and /b/	1	usba > usab
metathesis		1	pangbalaud > pamalau
assimilation	pang > pam	1	

As shown in Table 2, the Cebuano-Binisaya language in Davao del Norte exhibits seven (7) phoneme substitutions, including both consonant and vowel phonemes: /t/ > /b/, /ɪ/ > /j/, /ɪ/ > /ø/, /l/ > /w/, /g/ > /k/, /j/ > /h/, and /d/ > /r/. These phoneme substitutions can be observed in 10 lexicons of Cebuano-Binisaya in Davao del Norte. Phoneme substitution refers to the process of phoneme substitution that occurs within a word. The phoneme substitution that takes place is observed only in the initial and medial positions of the lexicons.

On the other hand, there are five (5) phoneme deletions, including consonant and vowel phonemes: /ɪ/, /ʌ/, /ø/, /b/, and /d/. This refers to the phenomenon where a phoneme is deleted within a word. This type of phenomenon occurs because of the speaker simplifying their pronunciation.

Metathesis, on the other hand, occurs when there is a swapping of positions of specific phonemes within some words. Ultan (1971) states that metathesis preserves phonological elements



and is considered a recessive process that tends to be inhibited or counteracted by other, more dominant processes. Zorc (1977) also noted that metathesis can be observed in the Cebuano spoken in central Visayas and some northern parts of Mindanao.

Additionally, based on the gathered data, the change from 'pang' to 'pam' is observed in only one word that can be categorized as assimilation. Assimilation occurs when two sounds have similar characteristics regarding location or method. Consonant assimilation happens when one consonant takes on the characteristics of another (Trask, 2004).

### 1.1 Phoneme Substitution

The following shows examples of phoneme substitution found in the collected data. This morphophonemic change is also observed in the Cebuano language in the City of I (Fajardo et al., 2022).

#### 1.1.1 /t/ > /b/ Phoneme

One observed process of phoneme substitution is the exchange between the dental stop /t/ and the bilabial stop /b/ in similar lexicons. These voiced /t/ and voiced /b/ phonemes alternate in the same positions, as seen in the following example (1).

(1) 'lamig; cold'

/tʊg.nɒw/	Kap, NeC, Tag
/bʊg.nɒw/	Asu, BeD, Carmen, Iga, Pan, SaI, Sto, Tal

The word /tʊg.nɒw/ is used in Kapalong, New Corella, and Tagum, while /bʊg.nɒw/ is used in Asuncion, Braulio E. Dujali, Carmen, IGACOS, Panabo, San Isidro, Sto. Tomas and Talaingod as a substitute for the word 'cold.' It can be observed that there has been a phoneme substitution from /b/ to /t/ in the word /tʊg.nɒw/ used in the three mentioned areas in Davao del Norte. Both /t/ and /b/ are stop consonants, meaning their articulation is similar, which may explain why this change emerged in the mentioned language.

#### 1.1.2 /ɪ/ > /j/ Phoneme

Example (2) shows the substitution of the front-high vowel phoneme /ɪ/ and the glide

phoneme /j/. Based on the data, the vowel phoneme /ɪ/ in the word /bɒ.'bɒɪ/ used in Braulio E. Dujali, Kapalong, and Panabo is replaced by /j/ in the word /bɒ.'bɒj/ in Asuncion. As mentioned earlier, glide phonemes are pronounced like vowels with almost no obstruction of airflow in the mouth, which may have led to this process where a glide phoneme replaces a vowel phoneme.

(2) 'babae; woman'

/bɒ.'bɒɪ/	BeD, Kap, Pan
/bɒ.'bɒj/	Asu

#### 1.1.3 /ɪ/ > /ʊ/ Phoneme

Based on the collected data, it was also observed that there is a substitution of the phonemes /ɪ/ and /ʊ/ in the Cebuano-Binisaya language of Davao del Norte. The following examples show the vowel /ɪ/ in the word /sɪ.lɒw/ 'sunray' used in Asuncion, Braulio E. Dujali, Carmen, Island Garden City of Samal, Panabo, San Isidro, Sto. Tomas, New Corella, and Tagum are replaced by /ʊ/ in the word /sʊ.lɒw/ used in Kapalong. The vowel /ɪ/ in the word /ʔɪ.sɒ/ 'one' used in Braulio E. Dujali, Kapalong, New Corella, Panabo, and Tagum becomes /ʊ/ in the word /ʔʊ.sɒ/ used in Asuncion, Carmen, Island Garden City of Samal, Talaingod, and San Isidro.

(3) 'sinag; sunray'<sup>3</sup>

/sɪ.lɒw/	Asu, BeD, Car, Iga, Pan, SaI, Sto, NeC, Tag
/sʊ.lɒw/	Kap

(4) 'isa; one'

/ʔɪ.sɒ/	BeD, Kap, NeC, Pan, Tag
/ʔʊ.sɒ/	Asu, Car, Iga, Sto, Tal, SaI

Both /ɪ/ and /ʊ/ are high vowels and differ only in the specific way they are pronounced – /ɪ/ is pronounced frontally, while /ʊ/ is pronounced with the tongue retracted.

#### 1.1.4 /l/ > /w/ Phoneme

The following examples show that there is also a phoneme substitution between the voiced alveolar lateral /l/ and the voiced bilabial glide /w/ in the Cebuano-Binisaya language of Davao del Norte.

The phoneme /l/ in the word /'dɔ.ɫʔ/ 'play' used in Asuncion, Braulio E. Dujali, Carmen, Island Garden City of Samal, New Corella, Panabo, San Isidro, Tagum, and Talaingod is replaced by the phoneme /w/ in the word /'dɔ.wʔ/ in Sto. Tomas. Meanwhile, the phoneme /l/ in the word /'bɔ.ɫʌn/ 'moon' used in Asuncion, Braulio E. Dujali, Kapalong, New Corella, Panabo, San Isidro,

Sto. Tomas, Tagum, and Talaingod becomes the phoneme /w/ in the word /'bɔ.wʌn/ in Carmen and Island Garden City of Samal. The phoneme /l/ in the word /pɔ.'ɫʌ/ 'red' used in Asuncion, Braulio E. Dujali, Carmen, Island Garden City of Samal, New Corella, Panabo, San Isidro, Tagum, and Talaingod becomes /w/ in the word /pɔ.'wʌ/ in Sto. Tomas. This observation was also observed in the

<sup>3</sup>The area of Talaingod was not included because it used a different lexicon for the word 'sunray'.

Cebuano-Bohol variety analyzed by Endriga (2009). It was noted that Cebuano-Bohol variety also exhibits phoneme substitution in words that ends with /l/ that are replaced with /w/. Among the samples are 'kural' > 'kuraw' and 'kahibalu' > 'kahibawu' <sup>5</sup>.

(5) 'laro; play'

/ 'dɔ.ɫʔ/ Asu, BeD, Car, Iga, NeC, Pan, SaI,  
Tag, Tal  
/ 'dɔ.wʔ/ Sto

(6) 'buwan; moon'

/ 'bɔ.ɫʌn/ Asu, BeD, Kap, NeC, Pan, SaI, Sto  
Tag, Tal  
/ 'bɔ.wʌn/ Car, Iga

(7) 'pula; red'

/ pɔ.'ɫʌ/ Asu, BeD, Car, Iga, NeC, Pan, SaI,  
Tag, Tal  
/ pɔ.'wʌ/ Sto

<sup>4</sup> Means fence.

<sup>5</sup> Means 'to know' or 'know'.

<sup>6</sup> It serves only as a co-variant lexicon in the area that uses it.

<sup>7</sup> The area of Island Garden City of Samal was not included in the presentation because a different lexicon is used in that area for the word 'tie,' which was discussed in the chapter on lexical variation.

### 1.1.5 /g/ > /k/ Phoneme

Based on the data, a substitution of the phonemes /g/ and /k/ was also observed in some Cebuano-Binisaya words in Davao del Norte. The phoneme /g/ in the word /hɪ.'gɔt/ 'tie' used in Braulio E. Dujali becomes /k/ in the word /hɪ.'kɔt/ in Asuncion, Island Garden City of Samal, Carmen, New Corella, Panabo, San Isidro, Tagum, and Talaingod.

(8) 'tali; tie'<sup>7</sup>

/ hɪ.'gɔt/ BeD  
/ hɪ.'kɔt/ Asu, Iga, Car, Kap, NeC, Pan,  
SaI, Sto, Tag, Tal

Both /g/ and /k/ are velar stop consonants. The phoneme /g/ is a voiced velar stop, while /k/ is a voiceless velar stop. This phenomenon shows that a voiced phoneme undergoes a process called weakening, which is why it is replaced by the voiceless phoneme.

### 1.1.6 /j/ > /h/ Phoneme

It can also be observed in the Cebuano-Binisaya language of Davao del Norte that there is a substitution between the phonemes /j/ and /h/ for the word 'dew.' The voiced alveo-palatal glide /j/ and the voiceless glottal fricative /h/, which may or may not have sound in pronunciation, are substituted in the mentioned word. In example (9), only the area of Sto. Tomas uses the sound /h/ for the word 'dew,' compared to the rest of the province, where /j/ is used.

(9) 'hamog; dew'

/ 'jʌ.mɔg/ Asu, BeD, Car, Iga, NeC, Pan,  
SaI, Tag, Tal, Kap  
/ 'hʌ.'mɔg/ Sto

### 1.1.7 /d/ > /r/ Phoneme

In the Cebuano-Binisaya language of Davao del Norte, the substitution of the phoneme /d/ with /r/ can also be observed. The dental stop /d/ is replaced by the lateral liquid /r/ in some

Cebuano words when it is positioned between two vowel phonemes. The phoneme /d/ in the word /<sup>h</sup>dΛ.ʔΛn/ ‘old’ used in Asuncion, Carmen, Kapalong, New Corella, Panabo, San Isidro, Sto. Tomas, Tagum, Talaingod, and Braulio E. Dujali becomes /r/ in the word /kΛ.rΛ.ʔΛn/ used in Island Garden City of Samal because /d/ is now positioned between two vowel phonemes as a result of the process of affixation.

(10) ‘luma’

/<sup>h</sup>dΛ.ʔΛn/ Asu, Car, Kap, NeC, Pan, SaI, Sto,  
Tag, Tal, BeD  
/kΛ.rΛ.ʔΛn/ Iga

## 1.2 Phoneme Deletion

Based on the collected data, it was observed that deletion or phoneme loss occurs in the medial and final positions of some Cebuano-Binisaya words in Davao del Norte. Fajardo et al. (2022) state that the deletion of phonemes can be found in the Cebuano language spoken in the City of Iligan, where one or two phonemes are deleted in words that undergo lengthening in the pronunciation of stress.

### 1.2.1 Deletion of vowel phoneme

The following examples present Cebuano-Binisaya words where vowel phonemes such as /ɪ/, /Λ/, and /ʊ/ are deleted. According to Wolff (1972), this observation of vowel deletion and dropping can also be observed in Cebuano in Cebu in some parts of Mindanao. Wolff (1972) added that when a suffix is added to a root with a stressed final syllable, the tendency is to drop the vowel of the final syllable of the root. In the following sample, vowels are deleted after the consonant or if the vowel is in between two consonants.

#### 1.2.1.1 Vowel phoneme /ɪ/

In the example in (11), it can be seen that the word /bΛ.bΛ.jɪ/ ‘woman’ used in Carmen, Island Garden City of Samal, New Corella, San Isidro, Sto. Tomas, and Talaingod undergoes a deletion of the phoneme /ɪ/ in the word /bΛ.bΛ.j/ used in Asuncion.

(11) ‘babae; woman’

/bΛ.bΛ.jɪ/ Car, Iga, NeC, SaI, Sto, Tal  
/bΛ.bΛ.j/ Asu

The phoneme /j/, positioned before the vowel /ɪ/ in the word /bΛ.bΛ.jɪ/, is a glide phoneme. As a glide, this phoneme is pronounced like a vowel with almost no obstruction of airflow in the mouth, which is why it assimilates with the vowel and is deleted.

#### 1.2.1.2 Vowel fonim /Λ/

Another example of phoneme deletion can be seen in the word ‘balahibo’. From the standard form ‘balahibo’, used in the areas of Sto. Tomas, Tagum, and Braulio E. Dujali, there is a deletion of the vowel phoneme /Λ/ found in the antepenultimate open syllable. As a result, the form ‘balhibo’, with the deletion of /Λ/, is used in a larger part of the province, such as in Asuncion, Kapalong, Island Garden City of Samal, Panabo, San Isidro, Sto. Tomas, New Corella, Carmen, and Talaingod.

(12) ‘balahibo; feather’

/bΛ.lΛ.hɪ.bʊ/ Sto, BeD, Tag  
/bΛ.l.hɪ.bʊ/ Asu, Kap, Iga, Pan, NeC, SaI,  
Tal, Car

Based on the data, the vowel /Λ/ is also deleted in some Cebuano-Binisaya words in Davao del Norte, as seen in (12). The word /bΛ.lΛ.hɪ.bʊ/ ‘feather’ used in Sto. Tomas, Braulio E. Dujali, and Tagum becomes /bΛ.l.hɪ.bʊ/ in Asuncion, Kapalong, Island Garden City of Samal, Panabo, New Corella, San Isidro, Talaingod, and Carmen.

#### 1.2.1.3 Vowel fonim /ʊ/

Another vowel phoneme in Cebuano-Binisaya that has been observed to undergo deletion is /ʊ/. As shown in (13), the deletion of the phoneme /ʊ/ occurs in the word ‘cheek’. In example (13), the high-back vowel /ʊ/ is deleted in the lexicon used in Tagum, resulting in /nΛ.wʊŋ/. Meanwhile, only the area of Asuncion uses the form /nΛwŋ/, which does not change the meaning of the word.



(13) 'pisngi; cheeks'<sup>8</sup>

/nΛwŋ/	Asu
/nΛ'wŋ/	Tag

<sup>8</sup> Some areas were not included in the presentation as they use a different form of the lexicon for the word 'cheek'.

### 1.2.2 Deletion of consonant phoneme

In the deletion of consonant phonemes in the Cebuano-Binisaya language of Davao del Norte, this is usually observed in glottal stop consonants. The deletion of the consonant phoneme /b/ and /d/ can be seen in the medial position, especially when the root is affixed.

#### 1.2.2.1 Consonant Phoneme /b/

The deletion of the consonant phoneme can be observed in the lexicon 'tuntunin' or /pΛm. bΛ.'lΛ.ʔəd/, which becomes /pΛ.mΛ.'lΛ.ʔəd/, where the phoneme /b/ is deleted due to the influence of adjacent phonemes. This form is only observed in the municipality of Asuncion, while other areas use the form without the affix "pam-".

(14) 'tuntunin; law'

/pΛ.mΛ.'lΛ.ʔəd/	Asu
/bΛ.'lΛ.ʔəd/	BeD, Car, Iga, NeC, Pan, SaI, Tag, Tal, Kap, Sto

#### 1.2.2.2 Consonant Phoneme /d/

In the Cebuano-Binisaya language of Davao del Norte, the deletion of the glottal stop phoneme /d/ is observed in the word 'tanda' or remember. The word 'dumdum', when affixed with the prefix hin- and the suffix -an, becomes [hin+dumdum+an]. However, due to the influence of adjacent phonemes, the /d/ in the root is deleted when followed by the phoneme /n/ in the affix. Only the areas of Braulio E. Dujali, Island Garden City of Samal, New Corella, San Isidro, Sto. Tomas, and Tagum use the form /hn. nŋm.dŋ.'mΛn/, while others use a different form.

hin+dumdum+an = *hinumduman*

hin+umdum+an = *hinumduman*

(15) 'tanda; remember'

/hn.nŋm.dŋ.'mΛn/	BeD, Iga, NeC, Pan, SaI, Sto, Tag
------------------	--------------------------------------

<sup>9</sup> Other places were not included because a different lexicon is used.

Based on the collected data, it can be observed that the morphophonemic process showing the deletion of phonemes in the Cebuano-Binisaya language of Davao del Norte occurs in the vowel phonemes /ɪ, ʌ, ʊ/ of the language.

### 1.3 Metathesis

In example<sup>9</sup> (16), the positions of the two phonemes /ʌ/ and /b/ are swapped, which does not change the meaning of the word. As stated by Baran (2023), this process involves the rearrangement of syllable order or the interchanging of placements between two segments. This morphophonemic change is also observed in the spoken language of Cebuano-Binisaya in the Cebu region.

(16) 'ulit; repeat'

/ʔŋs.bʌ/	Asu
/ʔŋs.ʌb/	Tag

From the position of the consonant phoneme /b/ as the onset of the ultima in /ʔŋs. bʌ/, it shifts to the position of the adjacent vowel phoneme /ʌ/. From here, /b/ serves as the coda of the syllable in the form /ʔŋs.ʌb/, which also causes the ultima to be classified as a closed syllable.

### 1.4 Assimilation

The process of assimilation can also be observed in the Cebuano-Binisaya language of Davao del Norte. Assimilation occurs when there is a change in the form of a morpheme due to the influence of adjacent phonemes. According to Rubrico (2011), this process generally occurs during affixation when a phoneme takes the point of articulation of its neighbor. Based on the collected data, partial assimilation occurs in some morphemes in the Cebuano language of Davao del Norte.

#### 1.4.1 Total Assimilation

This refers to the change that occurs in the phoneme /ŋ/ according to the articulation point of the following sound (Santiago and Tiangco, 2003). In the Cebuano-Binisaya language of Davao del Norte, the root that is affixed with the prefix "pang-" becomes "pam-". Due to the

following bilabial stop phoneme /b/, the /ŋ/ is deleted and instead directly follows the vowel “a”.

**Pang** + balaud > **pangbalaud**  
**Pam** + balaud > **pambalaud** > *pamalaud*

(17) ‘tuntunin’

/pʌ.mʌ.ʔʌ.ʔɔd/ Asu  
 /bʌ.ʔʌ.ʔɔd/ BeD, Car, Iga, NeC, Pan, SaI,  
 Tag, Tal, Kap, Sto

Aside from this observation, it can also be seen that due to the change in affixes, the phoneme following /b/ is also omitted, as shown in example (17).

## DISCUSSION

The study of morphophonemic changes in Cebuano-Binisaya spoken in Davao del Norte reveals a complex interaction between phonological and morphological processes that result in the observed variations in the form of words. These changes, driven primarily by phonetic factors such as the articulation of sounds and ease of pronunciation, contribute to the dynamic nature of the language (Rubrico, 2011). The results show that phoneme substitution, deletion, metathesis, and assimilation are key processes shaping the morphophonemic landscape of the Cebuano-Binisaya variety in the region (Endriga, 2009; Wolff, 1972; Trask, 2004).

Phoneme substitution, the most common morphophonemic change observed in this study, reflects a shift in sound due to ease of articulation or dialectal differences. For instance, the substitution of the dental stop /t/ with the bilabial stop /b/ in the word tugnaw (‘cold’) is widespread across different areas of Davao del Norte. This phenomenon is not only observed in this study but also aligns with findings from other regions, such as Cebuano spoken in Iligan (Fajardo et al., 2022). The phonemes /t/ and /b/ are both stops but differ in articulation, with /t/ requiring a more precise placement of the tongue compared to the more relaxed articulation of /b/, which could explain the substitution (Ladefoged and Johnson, 2014). This type of phoneme substitution, particularly occurring in initial and medial positions, is a

recurrent feature in the regional dialects of Cebuano-Binisaya and reflects the natural evolution of spoken language influenced by regional phonetic tendencies.

Another notable substitution observed is the replacement of the vowel /ɪ/ with the glide /j/, as seen in the word *babae* (‘woman’). The shift from a front-high vowel to a glide could be attributed to the phonetic ease of producing glides in place of vowels, a feature common in rapid speech patterns. This trend aligns with the process of vowel reduction and simplification seen in many languages, where less prominent vowels become glides or semi-vowels to facilitate quicker and more efficient articulation (Trask, 2004).

The substitution of the phoneme /ɪ/ with /ʊ/, particularly in words like *silaw* (‘sunray’) and *isa* (‘one’), is another notable example of regional variation. The high vowels /ɪ/ and /ʊ/ differ in tongue position, with /ɪ/ being more fronted and /ʊ/ being retracted. This substitution could be attributed to dialectal shifts in vowel pronunciation, where speakers in certain areas favor one vowel over another, often due to regional phonological influences or ease of articulation (Labov, 2012).

The substitution of the consonant /l/ with /w/ in words like *dula* (‘play’) and *buwan* (‘moon’) is a significant finding that mirrors patterns observed in Cebuano-Bohol (Endriga, 2009). The shift from /l/, a lateral approximant, to /w/, a bilabial glide, represents a simplification in articulation. Both sounds are produced with relatively minimal tongue movement, which may contribute to the frequent occurrence of this substitution in the region.

Phoneme deletion, particularly of vowels and consonants, is another prominent morphophonemic change observed in the data. The deletion of the vowel phoneme /ɪ/ in words like *babae* (‘woman’) and *balahibo* (‘feather’) highlights a common phenomenon in spoken languages, where unstressed vowels or vowels in final syllables are often dropped for ease of pronunciation (Wolff, 1972). This type of vowel deletion is common in the Cebuano language across various regions, including Iligan, and is indicative of a tendency toward phonological reduction, especially in fast or casual speech.

The deletion of consonant phonemes such as /b/ and /d/ further illustrates the process of simplification in the language. In particular, the deletion of the consonant /b/ in words like *pambalau* ('law') and *hindumduman* ('remember') suggests that speakers in certain areas of Davao del Norte are eliminating consonants that may be phonetically redundant or difficult to articulate in specific contexts. This phoneme deletion is especially prevalent when affixes are added, highlighting the dynamic interaction between the root word and its affixes during affixation.

The deletion of phonemes is a common phenomenon in many languages, serving as a mechanism for simplifying pronunciation and enhancing speech fluency. In some languages, certain phonemes are deleted in specific phonological environments, often in the presence of affixes, rapid speech, or in cases where the phoneme is deemed redundant. For instance, in many varieties of Cebuano, the deletion of consonants, such as the /b/ sound, occurs in specific contexts, particularly when affixes are added to root words (Rubrico, 1998). This process of phoneme deletion is an example of language economy, where speakers tend to eliminate sounds that may be difficult to articulate or unnecessary for distinguishing meaning. According to Rubrico (1998), this phonological reduction occurs through processes like assimilation and elision, which simplify the morphological structure of words. Phoneme deletion is also observed in languages like English, where unstressed vowels or consonants may be dropped in casual speech, reflecting a similar drive towards ease of articulation (Labov, 2012). Thus, phoneme deletion contributes to the dynamic and adaptive nature of language, helping speakers communicate more efficiently.

Metathesis, the swapping of phonemes or syllables, was also observed in the data. For example, in the word *usba* ('repeat'), the swapping of the vowels /a/ and /b/ results in the form *usab*. While this shift does not change the meaning of the word, it does reflect a tendency to reorder phonemes for ease of pronunciation. The occurrence of metathesis in Cebuano-Binisaya, similar to other Philippine languages, may be seen as a natural linguistic

process aimed at preserving phonological elements in a way that minimizes articulatory difficulty (Baran, 2023; Blevins and Garrett, 2004). This finding supports the view that metathesis is a recessive process, influenced by dominant phonological trends in the language.

Assimilation is another morphophonemic process evident in the data. In the observed cases, assimilation occurs when adjacent phonemes influence each other's articulation, leading to changes in the pronunciation of a morpheme. For example, the prefix *pang-* becomes *pam-* before a bilabial consonant, as seen in the word *pangbalaud* ('law') becoming *pambalau*. This type of assimilation, where the place of articulation of one sound influences the neighboring sound, is common in many languages and is a direct result of the phonetic properties of the sounds involved (Rafael, 2007). The tendency for sounds to assimilate to adjacent sounds facilitates smoother transitions between phonemes, contributing to more fluid and efficient speech patterns.

## CONCLUSION

This section presents the summary on the linguistic trends identified and how the observed morphophonemic changes contribute to the understanding of language dynamics of Cebuano-Binisaya language of Davao del Norte. Based on the results and discussions, it can be noted that the linguistic trends and morphophonemic changes in the Cebuano-Binisaya language of Davao del Norte shed light on its language dynamics. Key findings include phoneme substitution, deletion, metathesis, and assimilation.

The deletion of both consonant and vowel phonemes is observed, while phoneme substitution is the most common change, and metathesis is the least frequent. The results show regional consistency in linguistic features, suggesting shared linguistic influences, possibly due to migration, trade, or contact with neighboring communities. These shared features may reflect regional identity and foster social cohesion. The similarities in morphophonemic changes could indicate a broader linguistic isogloss, useful for understanding dialectal

divisions within the province. These changes also point to ongoing language evolution, potentially influenced by younger generations, education, and media.

## ACKNOWLEDGMENTS

The study of the Dialectology of the Cebuano-Binisaya language in Davao del Norte was made possible through the invaluable support of numerous individuals. The author expresses deep gratitude to Dr. Danilyn T. Abingosa for her guidance and encouragement and to the panel members for their constructive feedback. Special thanks to the mayors, informants, school principals, faculty members, and the author's family and friends for their contributions and unwavering support.

## FUNDING SOURCE

Study was self-funded

## CONFLICT OF INTEREST

The authors declare no conflicts of interest related to this research on the Analysis of Morphophonemic Changes of the Cebuano-Binisaya in Davao del Norte. No financial support, personal relationships, or other external factors have influenced the research process or outcomes.

## AUTHOR'S CONTRIBUTION

Ms. Shiela May R. Abucay: Conceptualized and designed the study on language documentation, particularly on the morphophonemic changes, which is part of her dialectology research on the Cebuano language spoken in Davao del Norte. The author also conducted fieldwork, data collection, and analysis, and interpreted the findings. Additionally, the author wrote and revised the manuscript, ensuring its accuracy and integrity throughout the research process.

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