


International Journal of Learning, Teaching and Educational Research
Vol. 24, No. 6, pp. 948-970, June 2025
<https://doi.org/10.26803/ijlter.24.6.43>
Received Apr 9, 2025; Revised Jun 2, 2025; Accepted Jun 5, 2025

A Mixed-Methods Study of Creole Minangkabau Language of Chinese Speakers in Padang, Indonesia: Implications for Second or Third Language Learning

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Abstract. This study investigated the emergence of the Creole Minangkabau Language (CML), which is a unique linguistic phenomenon that resulted from the contact between Minangkabau, Indonesian, and Chinese languages in Padang, Indonesia. CML has evolved over centuries, and was shaped by social, economic, and cultural interactions between the Chinese and Minangkabau communities. Using a mixed-method approach (qualitative, descriptive, and distributional analysis), this research analyzed phonological, morphological, and lexical changes in CML. The study sample consisted of 1,101 data points drawn from six word groups according to their linguistic origins. Findings reveal that Minangkabau serves as the matrix language, while Indonesian and Chinese contribute vocabulary and structural elements. Regular patterns of phoneme omission, vowel shifts, and diphthong simplification were identified, which reflect systematic linguistic adaptation. The study connects these findings to contemporary theories of language contact, such as bilingual optimization strategies and pidginization-creolization processes. Social factors, including economic integration and cultural assimilation, played a crucial role in shaping CML. This research contributes to the understanding of Creole languages in Southeast Asia and highlights the dynamic interplay between language and identity. Furthermore, this study highlights the potential of CML as a tool for second or third language learning,

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particularly in multilingual contexts. By integrating cultural and linguistic elements, CML can serve as a bridge for learners to acquire other languages, such as Minangkabau, Indonesian, or even Mandarin. The findings contribute to the literature on language contact and creolization while providing practical insights into language education policies in multicultural societies.

Keywords: Creole Minangkabau language; Chinese speakers; Second and third language learning; Minangkabau

1. Introduction

A multi-ethnic society typically gives rise to a multilingual perspective, and language contact leads to the emergence of new linguistic varieties. While extensive research has been conducted globally on creole languages (Akujobi & Nnaji, 2024; Aquilina, 2024; Gooden, 2022; Jno-Baptiste, 2024; Mühleisen, 2022; Stein, 2024; Yeatman & Angelo, 2024), few studies have adequately addressed the natural emergence of creole languages in Southeast Asia, particularly in the diverse sociolinguistic landscape of Indonesia (Aditiawarman, 2019; Dahmen, 2022; Leo & David, 2023; Vicente & Cheng, 2024).

The formation of Creole Minangkabau Language (CML) reflects long processes of linguistic adaptation and social integration, which were shaped by historical migration patterns, economic interaction, and cultural assimilation. The arrival of Chinese traders in Padang as early as the 11th century laid the foundation for sustained intercultural communication with the local Minangkabau community. Over time, this interaction led to the development of a stable creole that functions as a native or dominant language among ethnic Chinese descendants in Pondok. Evidence of CML's historical roots can be found in Chinese tombstone inscriptions, which reflect early stages of language contact and transformation (Aditiawarman, 2019; Kroskrity, 2023).

Several studies explored the characteristics and development of the Minangkabau language (ML), especially in the context of dialectology and language contact. Aditiawarman (2019) identified phonological changes in the ML used by the Chinese community in Padang. These include the deletion of the final vowel /a/, vowel shifts, and diphthong simplification. These findings align with that of Zabrodskaia and Ivanova (2021), who state that ML serves as the foundation for the formation of CML, while Indonesian language (IL) and Chinese language (CL) contribute lexical elements.

Despite its significance, CML has received little scholarly attention, especially compared to other global creoles. Most studies have focused on English-lexifier creoles or post-colonial contexts, thereby leaving non-European creolization processes largely unexplored. This gap is particularly evident in Indonesia—a country with over 700 living languages and complex multilingual ecologies stretching from Sabang to Merauke. By examining CML, this study contributes to understanding how creole languages emerge in non-colonial, multilingual

environments and how they function as tools for identity construction, social cohesion, and language learning.

CML plays a crucial role in identity formation and intergroup communication. For younger generations of people of Chinese descent in Padang, CML often replaces Mandarin as their primary means of expression, which reflects a shift in cultural identification toward the local Minangkabau community. However, this linguistic shift also raises concerns about the loss of ancestral language and cultural heritage, and emphasizes the need for documentation and revitalization efforts. This study investigated the emergence, structure, and sociocultural implications of CML, to fill a critical research gap in Southeast Asian linguistics. It provides empirical evidence of trilingual creolization, offers a model for integrating creole languages in language education, and underscores the importance of recognizing regional languages in national language policies.

2. Research Question

This study addressed the following research questions:

1. How does CML reflect systematic linguistic adaptation in phonology, morphology, and lexicon?
2. What role does language contact play in the formation and maintenance of CML?
3. How can CML serve as a resource for multilingual education and second/third language acquisition?

By answering these questions, this research not only expands the theoretical understanding of creole formation but also provides practical insights into the preservation of regional languages and the integration of heritage languages into formal education systems.

3. Literature Review

3.1 Theories of Creole Languages

A creole language is a stable natural language that develops from the simplification and mixing of two or more languages over a relatively short period, often evolving from a pidgin into a fully developed language natively spoken by a community (Hull, 1993). According to Muysken (2013), creole languages possess consistent grammatical systems and stable vocabularies, and are acquired by children as their first language, which distinguishes them from other forms of mixed or hybrid languages. Another distinctive feature is the tendency toward systematization of inherited grammar, for example, through the elimination of irregularities or adjustments in verb conjugation patterns (Tabain et al., 2022).

Creole languages emerge as a result of intensive contact between two or more languages, particularly in complex social settings such as trade, colonization, or large-scale migration (Bakker, 2015; Kihm, 2008; Luís, 2017). McWhorter (2020) argues that the linguistic changes involved are permanent and have resulted in languages with native speakers. Creolization is the outcome of deep and

sustained linguistic interaction (Adam, 2024; Avram, 2010; McWhorter, 2020; Mesthrie, 2008; Rickford & McWhorter, 2017).

3.2 Creole Formation in Other Communities (Comparative Perspective)

To provide a broader perspective, the emergence of Minangkabau Creole can be compared with global cases of creole formation. One such example is Krio in Sierra Leone, which arose from contact between local African languages (Temne and Mende) and colonial English. In this case, English functions as the matrix language, while the local languages contribute lexical and morphological elements. In CML, the ML serves as the matrix language, while Indonesian and Mandarin primarily contribute lexical and structural components (Mair, 2022; Nero, 2022).

Another relevant case is Tok Pisin in Papua New Guinea, which illustrates the evolution from pidgin to creole. Although it is heavily influenced by English, Tok Pisin also incorporates elements from indigenous languages such as Tolai and Hiri Motu. CML shares similarities with Tok Pisin in terms of phonological and syntactic changes during creolization. However, CML is unique in that it involves three languages simultaneously: Minangkabau, Indonesian, and Mandarin. This phenomenon highlights that, although general patterns exist in creole formation, each creole possesses distinct characteristics that were shaped by its own socio-cultural and historical context (Winter-Froemel et al., 2023).

3.3 Language Contact Between Chinese and Minangkabau

Language contact between the Chinese and Minangkabau communities in Pondok, Padang, resulted in the emergence of a new linguistic variety known as CML. This process did not occur abruptly but is the outcome of long-standing economic integration and cultural assimilation spanning centuries (Dahmen, 2022; Ribas et al., 2022). According to Kroskrity (2023), such language contact not only transforms linguistic structures but also influences the sociocultural identities of both groups. In CML, the ML is the dominant matrix language, while Indonesian and Mandarin contribute vocabulary and certain structural features. This makes CML a rare case in Southeast Asia, where three distinct languages significantly contribute to the formation of a single creole language (Muysken, 2013).

3.4 The Role of Second/Third Language Learning in Creole Formation

The formation of CML is closely linked to second or third language acquisition, particularly in bilingual or multilingual communities. According to McWhorter (2020), creole languages often emerge as a result of bilingual optimization strategies, wherein speakers simplify linguistic structures to facilitate cross-cultural communication. In the case of CML, phonological simplifications such as the deletion of the final vowel /a/ and the reduction of diphthongs into monophthongs indicate systematic linguistic adaptation (Cruschina, 2021; Tomaselli et al., 2022). Furthermore, the development of CML demonstrates its potential as a tool for second or third language learning. Its linguistic structure – a mixture of three languages – positions CML as an ideal starting point for

acquiring Minangkabau, Indonesian, or even Mandarin (Leo & David, 2023; Tucker & Murphy, 2023)

4. Methodology

4.1 Research Approach and Design

This study employed a mixed-method approach that combined descriptive qualitative analysis with quantitative distributional analysis. This approach is considered most appropriate for capturing the complexity of linguistic interactions in the formation of CML (Muntendam & Muysken, 2022; Winter-Froemel et al., 2023)

4.2 Population and Sample

The research population consists of CML speakers in the Pondok area, Padang City, West Sumatra. The sample comprises 1,101 data points drawn from six lexical groups according to their linguistic origins. This sample size was deemed representative as it covered various contexts of CML usage, ranging from everyday conversations to culturally specific expressions.

4.3 Data Collection Techniques

Data were collected through direct observation, interviews with CML speakers, and analysis of archival linguistic documents. Additionally, cross-validation was conducted using historical audio recordings and secondary linguistic sources to ensure consistency in identifying linguistic changes in the CML-speaking community (Aditiawarman, 2019)

4.4 Research Instruments

The primary research instruments were an observation guide, an interview protocol, and a lexical classification table. These instruments were designed to identify phonological, morphological, and lexical changes in CML compared to its source languages: Minangkabau, Indonesian, and Mandarin.

4.5 Data Analysis Techniques

Data analysis was conducted using the distributional method, which identifies linguistic elements within larger units, such as phonemes within words, words within phrases, and phrases within sentences. To measure the degree of similarity and difference between CML and its source languages, the following formula was applied:

$$\frac{S}{N} \times 100 \% = X$$

Description:

S: total vocabulary in group (A, B, C, D, E, and F)

N: the number of netted vocabulary

X: vocabulary similarity owned by each group

In order to determine the percentage of similarity of the vocabulary used by CML to the Minangkabau and Indonesian languages, we have to know the percentage difference between the Chinese Language (CL) vocabulary and the ML vocabulary. Vocabulary differences can be used as a tool to determine whether CL has absorbed the ML vocabulary, without any changes, and to determine whether CL exists as an ML subdialect. In calculating the difference components contained in the CML, not all groups are included as determinants, only Groups D and E. This was done because there were differences between the Chinese vocabulary and the ML vocabulary in the two groups. Thus, the following formula was used.

$$\frac{S4 + S5}{N} \times 100 \% = Y$$

Description:

S4: Group D (S4 = fourth place)

S5: Group E (S5 = fifth order)

N: the number of netted vocabulary

Y: percentage difference between CL vocabulary and ML vocabulary

The data collected in the framework of compiling this paper amounted to 1,101 data points. The data were divided into six groups in the way described above.

4.6 Data Validity

To ensure data validity, the researchers applied inclusion and exclusion criteria in sample selection. Inclusion criteria were:

- Words frequently used in everyday conversation;
- Words showing significant phonetic, morphological, or syntactic changes; and
- Vocabulary arising from social interaction between the Chinese and Minangkabau communities.

Exclusion criteria were:

- Rarely used words or those appearing only in formal contexts; and
- Words that did not exhibit significant linguistic change.

Data validation was strengthened further through source triangulation and cross-checking with secondary data sources.

5. Results

5.1 Formation of Creole Minangkabau Language

A new language was formed from three new languages as a result of coexistence with one another (Cruschina, 2021; Kihm, 2008). Based on this formation, the new language was dominated by the ML. The dominant language is determined by measuring the greatest percentage of language included (Glâtre, 2020). CML

is made up of elements of Minangkabau Language, which is the matrix language, and supported by elements of Indonesian and Chinese Languages, which are languages that were brought from the Chinese highlands. Elements of the three languages merged into one, thereby forming a new language called Minangkabau Creole Language or CML. None of changes mentioned above change the meanings of the language elements; in other words, the changes that occur only affect vocabulary. The form changes that occur in the adopted vocabulary generally shows regularity. Each vocabulary group can be measured by a percentage. Measurement using percentages is useful for determining which language has the position of matrix language (Kihm, 2008; Winter-Froemel et al., 2023). A matrix language is a language whose elements dominate the newly formed language, both in terms of vocabulary and linguistic structure (Muntendam & Muysken, 2022).

5.2 Vocabulary Grouping

To group the vocabulary and measure the language elements contained in CML, the authors classified the vocabulary according to source, which required a detailed grouping. Each of these groups determine the language elements that dominate the formation of CML. The formation of the Mandarin vocabulary occurred naturally—no force could engineer this formation. Table 1 sets out the division of the groups.

Table 1. The level of difference in vocabulary contained by CML

Group	Description
A	Words in Group A are words in CML that have the same form and meaning as words in Minangkabau and Indonesian. This resemblance can occur because the three languages emerged from the same cluster of languages, namely Malay. In total 201 words belong in Group A.
B	From the data collected (1,101 words), we found 272 belonging to Group B.
C	Words in Group C have the same shape and meaning as Indonesian. Group C comprises 177 words.
D	Group D comprises Minangkabau vocabulary with the same shape and structure as the Indonesian vocabulary, and which are used in the CML environment.
E	Group E comprises a group of words that are different in shape from the words in Minangkabau and Indonesian.
F	The vocabulary in Group F are derived from CL vocabulary that is often found and heard in the speech of the Chinese-speaking community in Padang City. The origin of this vocabulary is generally cultural. Words in Group F numbered 26.

5.3 CML Vocabulary According to Dialectology

To classify CML, methods commonly used in dialectology studies can be used. To determine whether CML is included in the subdialect group, dialectology

principles are used. One of these measurements involves the degree of difference found in CML vocabulary, which is given in Table 2.

Table 2. Total number and percentages of vocabulary of CML

Group	Number of vocabularies	Percent
A	201	18.26
B	272	24.70
C	177	16.08
D	47	4.27
E	378	34.33
F	26	2.36
TOTAL	1,101	100.00

Table 2 presents the distribution of the total vocabularies in this study across six groups (Group A to Group F), along with their respective percentage contributions to the overall vocabulary count. Group E has the highest number of words, with 378 entries that account for 34.33% of the total vocabulary. This is followed by Group B with 272 words (24.70%) and Group A with 201 words (18.26%). Group C contains 177 words (16.08%), while Group D has the fewest number of words, at 47 (4.27%). Group F has only 26 words, which represents 2.36% of the total. The overall vocabulary numbers 1,101 words, which makes up the total percentage of 100.00%.

According to Lavidas and Bergs (2020,) differences of 31%–50% are considered sub-dialect differences. Thus, dialectologically, CML can be said to be a sub-dialect of ML. This subdialect occurs as the result of learning CML, which has a different vocal system than the vocal system of ML. In addition, the Chinese community does not originate from a cognate language group (Malay), but from a different language group, namely from CL's mother tongue background. In this case, we can say that the change in language that occurs is caused by social factors, which means this phenomenon can be referred to as a social dialect.

5.4 Formation of the CML Vocabulary

The CML vocabulary consists of several language components, namely the ML component, the IL component, and the CL component. CML formed as the result of people learning Minangkabau and Indonesian (Winter-Froemel et al., 2023; Zabrodskaia & Ivanova, 2021); in this learning process, there was massive replacement of CL by ML and IL. In spite of the replacement of CL, the learning process, over hundreds of years, was not able to eliminate the original language (in this case CL) from the Chinese. Chinese language components can still be found in CML components that are very closely related to Chinese culture.

The CML vocabulary arose as a result of absolute absorption, without any phoneme changes in the vocabulary environment. This absorption applies to

ML, IL, and CL vocabulary. In the process of absorbing the vocabulary of the three languages there was absolutely no change (Mair, 2022; McWhorter, 2020); therefore, the vocabulary that appeared is as pure as in the original languages. The overall absorption of vocabulary, in ML, BI, and CML, can be seen in Example 1.

No.	ML	IL	CML	Meaning
1.	[abu]	[abu]	[abu]	ash
2.	[ana?]	[ana?]	[ana?]	child
3.	[api]	[api]	[api]	fire

Example 1

Complete ML vocabulary absorption involves CML embracing the ML vocabulary as a whole without changing, structurally or semantically, the words it absorbs. This type of absorption applies to the ML vocabulary; in contrast the IL vocabulary does not change anything. Changes included in this group are given in Example 2.

No.	ML	IL	CML	Meaning
1.	[aso?]	[asap]	[aso?]	smoke
2.	[baka]	[bakar]	[baka]	Burn
3.	[bana]	[benar]	[bana]	correct

Example 2

In the ML absorption vocabulary used as a Indonesian Language element, the vowel /a/ is omitted in the absorbed Minangkabau vocabulary. Omission of the vowel /a/ experienced by loanwords is very regular and the rules of change can be determined. The phenomenon of change described in the uptake of ML vocabulary by CML can be broken down as follows. This rule states that if the vowel /-a/ is in the final position of a word and is preceded by the vowel /-i-/ or the vowel /-u-/, then the vowel /-a/ tends to disappear. The omission of the vowel /a/ at the end of this word can be seen in Example 3.

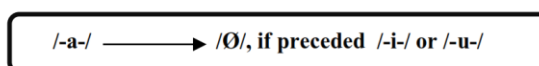
/-a/ → /Ø/, when precede /-i-/ or /-u-/

No.	ML	CML	IL	Meaning
1.	[pikia] /-a/ →	[piki] /Ø/	[pikir]	think
2.	[pingua] /-a/ →	[pingu] /Ø/	[pingul]	hips
3.	[dapua] /-a/ →	[dapu] /Ø/	[dapur]	kitchen

Example 3

In Example 3, it appears that the vowel /a/ at the end of Minangkabau words disappeared (/Ø/) after being adopted by CML. Omissions occur, in general, when the missing vowel is preceded by the vowel /i/ or /u/, whereas the vowel /i/ or the vowel /u/ that precedes the missing vowel /a/ automatically takes the final position in the word.

The omission of the vowel /a/ in ML vocabulary that is absorbed by CML can also occur in the vowel /a/ if the position is in the middle of the word. The omission of the vowel /a/ from the middle of a word usually follows the rule in Example 4



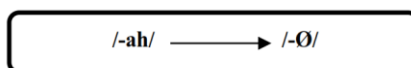
The omission of the vowel /a/ through the rules above can be seen in the following words:

No.	ML	CML	IL	Meaning
1.	[iduaŋ]	[iduŋ]	[hiduŋ]	nose
	<u>/-a-</u> →	<u>/Ø/</u>		
2.	[daguaʔ]	[daguʔ]	[dagu]	chin
	<u>/-a-</u> →	<u>/Ø/</u>		
3.	[kaniŋ]	[kaniŋ]	[keniŋ]	forehead
	<u>/-a-</u> →	<u>/Ø/</u>		

Example 4

Example 4 shows that the vowel /a/ in the middle of a word can be lost if it is preceded by the vowel /i/ and the vowel /u/. In Cases 1 and 2 it can be seen that the vowel /a/ is preceded by the vowel /u/, while in Case 3, the vowel /a/ is preceded by the vowel /i/. Therefore, according to the rule in Example 4, the vowel /a/ in Cases 1 to 3 are lost in CML. The rule states that the vowel /a/ could disappear when an ML word is adopted by CML. Deletion can occur when the vowel /a/ is preceded by the vowel /i/ or the vowel /u/. The omission of the vowel /a/ in the middle position in the distribution occurs when the vowel /a/ is preceded by the vowel /i/ or /u/. In general, a mid-vowel /a/ is lost (Ø = zero) when it is followed by a glottal stop (?) and a velar /ŋ/ sound.

In its formation, the CML vocabulary takes up ML vocabulary by omitting /ah/ at the end of the adopted vocabulary. Vocabulary adoption by removing the element /ah/ at the end of a word can be formulated according to the rule in Example 5.



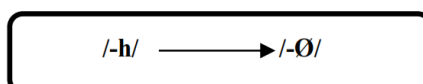
The phenomenon of removing the element /ah/ at the end of this word can be seen in the example below.

No.	ML	CML	IL	Meaning
1.	[agiah] /-ah/ →	[agi] /-Ø/	[kasih]	give
2.	[bunuah] /-ah/ →	[bunu] /-Ø/	[bunuh]	kill
3.	[jauah] /-ah/ →	[jau] /-Ø/	[jauh]	far

Example 5

From the five examples above, it can be said that the missing element /-ah/ at the end of a word can be preceded by a vowel /i/ or a vowel /u/. If viewed from a phonological perspective, it can be said that the high vowel /i/ or vowel /u/ has a strong self-defense ability if it is followed by a combination of vowel /a/ and consonant /h/ at the end. ML words are absorbed by CML. The vowels /a/ and consonants /h/, which are located at the end of ML words that were absorbed by CML, tend to be lost, because the vowel /a/ has a low position in the vowel triangle series (vowel chart).

In the collection of ML and CML vocabulary, symptoms of the omission of the consonant /h/ were found in the collected words. This omission only occurs with the consonant /h/, which occupies the final position in words taken from the ML. The omission of the consonant /h/ at the end of a word in this way can be formulated in the form of a rule, namely:



The phenomenon of the consonant /h/ being omitted at the end of a word occurs often in the CML used by speakers of Chinese ethnic descent (see Example 6).

No.	ML	CML	Meaning
1.	[ayah] /-h/ →	[aya] /-Ø/	father
2.	[basah] /-h/ →	[basa] /-Ø/	wet
3.	[buah] /-h/ →	[bua] /-Ø/	fruit

Example 6

Example 6 explains that the consonant /h/ can be preceded by one or two vowels (not diphthongs). Two vowels that are located directly next to each other in the word structure are not always diphthongs. Two consecutive vowels that do not belong to the diphthong group may be separated because of the separation of the syllable of the word in question. For example, it can be seen in data Case 3 in Example 6, the word fruit, if it is split into two syllables, will become fruit. Decapitation refers to a separation of the vowels /u/ and /a/, as in the word fruit, so that the vowel series /u/ and the vowel /a/ in the word fruit are not included in the diphthong group. In contrast to the word island, the vowels /a/ and vowel /u/ will not be separated if the word is split into syllables. So, the vowel sequence /a/ and vowel /u/ in the word island represent a series of vowels that are included in the diphthong group. From the omission illustrated by Example 6, it can be explained that the consonant /h/ can be preceded by one or two vowel vowels (not diphthongs). Two vowels that are located directly adjacent in the word structure cannot both be said to be diphthongs. Two consecutive vowels that do not belong to the diphthong group can be two vowels that are separated because of the separation of the syllable of the word in question.

The form of vowel omission that occurs in the process of collecting ML vocabulary is the omission of the vowel /i/ when it occupies the middle position in the structure of a word. The omission of vowels that occur in the middle vowel /i/ in ML words adopted by CML can be formulated in the following form:

/i/ → /Ø/

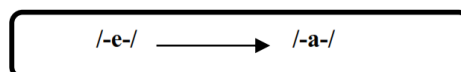
The omission of the vowel /i/ which is located in the middle of this word can be seen in the following example.

No.	ML	CML	IL	Meaning
1.	[idui?] /i/ →	[idu?] /Ø/	[hidup]	life
2.	[kabui?] /i/ →	[kabu?] /Ø/	[kabut]	fog
3.	[lutui?] /i/ →	[lutu?] /Ø/	[lutut]	knee

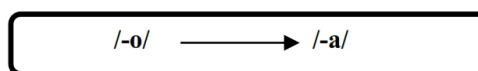
Example 7

In general, the omission of the middle vowel /i/ usually occurs in words that end with a glottal stop (?) or the missing /i/ is preceded by a vowel, which is preceded by a vowel /u/. When the vowel /i/ is preceded by a vowel other than /u/ and both end with a glottal stop, as in Example 7, the vowel /i/ is not omitted. If the vowel /i/ is preceded by a vowel other than the vowel /u/, the word [lutui?] in ML is still [lutui?] in CML, which, in IL, means knee.

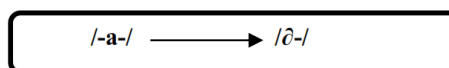
If the vowel /e/ is located in the middle of a specific vocabulary item in ML, it will undergo a change to the vowel /a/ during the formation of CML. Such changes are not particularly productive in the formation of ML vocabulary. The change from the vowel /e/ to the vowel /a/ in the middle of a word can be formulated by the following rule:



The change of vowel /e/ to vowel /a/ in the middle of a word occurs in only one example, namely the word [kariŋe?], which, in ML, becomes [kariŋa?] in CML. This word, in both ML and in CML, has the same meaning, namely sweat. Changes also occur in the vowel /a/ when it occupies the final position in an ML word. This change involves the vowel /o/ at the end of the word changing to the vowel /a/. These vowel changes can be formulated by the following rule:



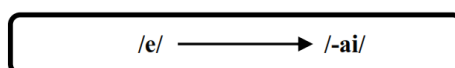
The change of vowel /o/ at the end of a word to vowel /a/ can be seen in the example of [ŋo] in ML changing to [ŋa] in CML. The change experienced by the word occurs only phonologically, while the meaning does not change, that is, it still means its. This phenomenon, of changing the vowel /o/ to the vowel /a/ at the end of a word, is not present in the formation of the CML vocabulary. The vowel /a/ in the middle of ML words changes to the vowel /ə/ in CML words. These changes can be formulated with the following rule:



No.	ML	CML	IL	Meaning
1.	[balah] /a-/ →	[bəla] /ə-/	[belah]	split
2.	[bare?] /a-/ →	[bərə?] /ə-/	[berat]	heavy
3.	[gadaŋ] /a-/ →	[gədəŋ] /ə-/	[besar]	big

Example 8

The diphthong /ai/ changing to the monophthong /e/ at the end of a word not only applies in a single vowel, but also to multiple vowels (better known as diphthongs). The formation of the CML vocabulary involved the diphthong /ai/ at the end of the word ML becoming a monophthong /e/ in CML. The change of diphthong /ai/ at the end of the word to monophthong /e/ can be formulated with the following rule:

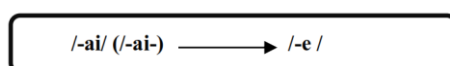


The change of diphthongs according to this rule is present in the CML spoken by ethnic Chinese in Pondok, Padang city, and are illustrated in Example 9.

No.	ML	CML	IL	Meaning
1.	[gulai] /ai/ →	[gule] /e/	[gulai]	curry
2.	[tapai] /ai/ →	[tape] /e/	[tapai]	tapai
3.	[sungai] /ai/ →	[sunje] /e/	[sungai]	river

Example 9

This change is included in the group of changes from diphthong to monophthong, because the monophthong /e/ is not one of the vowels found in the diphthong /ai/. The diphthong /ai/, which originates from the combination of a low-mid vowel /a/ and a high-front vowel, is changed to the middle-front vowel /e/. Therefore, in this paper, the vowel /e/ is not considered a simple vowel but rather a monophthong. This distinction arises because the appearance of /e/ is caused by a shift in diphthongs (double vowels) within the vowel system of CML. The term monophthong is used to differentiate between changes from diphthongs to monophthongs and changes from one vowel to another outside the diphthong region (not derived from double vowels). Thus, it can be concluded that not all adjoining vowels can be classified as being part of the diphthong group. For changing the diphthong /ai/ to the monophthong /e/ in the middle of a word, the following rule applies:







Changes to diphthongs in the middle of a word can occur, for instance, in /-ia-/ and /-ai-/ diphthongs. The two diphthongs are changed to monophthong /e/, with a fixed position in the middle of the word they occupy. The change of diphthongs /-ia-/ and /-ai-/ to monophthongs /e/ can be seen in Example 10.

No.	ML	CML	IL	Meaning
1.	[balia?] /ia/ →	[bale?] /e/	[balik]	come back
2.	[adia?] /ia/ →	[ade?] /e/	[adik]	younger brother
3.	[sunai?] /ia/ →	[sune?] /e/	[sunai]	circumcision

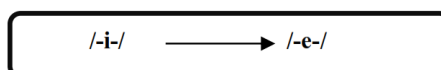
Example 10

The three examples presented in Example 10 show the way a diphthong changes to a monophthong. Conversion of diphthongs into monophthongs involves one of the elements of the diphthong that is being changed not appearing in the resulting monophthong. In other words, the monophthong that appears is not the vowel /a/ or the vowel /i/; instead, the monophthong that appears is the vowel /e/, which is not one of the diphthongs it replaces. The direction of movement of vowel changes can be seen in Table 2.

Table 2. Vowel change direction

Tongue Position	Fonem		
	front	central	back
high	I 		u 
mid	E 		O 
low		A	

For changing the vowel /i/ to /e/ in the middle of a word, the following rule applies:

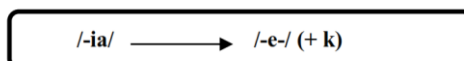


The vowel change formulated above can be seen in the example below.

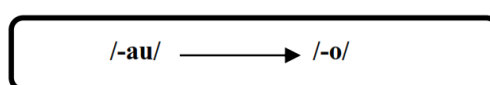
No.	ML		CML	IL	Meaning
1.	[lain]		[laen]	[lain]	other
	/-i-/	→	/-e-/		
2.	[main]		[maen]	[main]	play
	/-i-/	→	/-e-/		
3.	[kain]		[kaen]	[kain]	cloth
	/-i-/	→	/-e-/		

Example 11

This vocal change can be referred to as a vocal shift event. This change is observed in cases where the vowel /i/ shifts to the vowel /e/. Specifically, if the vowel /i/ appears in the middle of a word in ML vocabulary, and when the word is absorbed into CML, then the vowel /i/ changes to /e/. The high front vowel /i/ in ML vocabulary tends to shift to a middle front vowel /e/ when incorporated into CML. It is important to note that this change does not occur randomly or affect all vowels; only vowels that meet the specific criteria outlined above undergo this transformation. The rule for changing the diphthong /ia/ to the monophthong /e/ at the end of a word is as follows:



This rule above explains that, in ML, the final diphthong /-ia/ can turn into a vowel /-e-/ in the middle of a word because, once it is part of CML vocabulary, the consonant /k/ is added as the last phoneme, to close the word. Because of the addition of the phoneme /k/ at the end of the newly formed word, the vowel /e/ in CML is no longer in the final position, but in the middle position, because it is followed by the consonant /k/ as the last element of the word formed. This phenomenon can be explained by the word [aia] in ML changing to the word [ae?] in CML. Even though the phoneme arrangement of these words has changed, in terms of meaning, the two words have not changed, that is, they still mean water in Indonesian. The change only occurs in the form of the word, not in its meaning. The following rule applies for change of the diphthong /au/ to the monophthong /o/ at the end of a word:



These changes are described by the rules of following a pattern of regular changes, as illustrated by Example 12.

No.	ML		CML	IL	Meaning
1.	[ijau]		[ijo]	[ijau]	green
	<u>/-au/</u>	→	<u>/-o/</u>		
2.	[daŋau]		[daŋo]	[daŋau]	hut
	<u>/-au/</u>	→	<u>/-o/</u>		
3.	[baŋau]		[baŋo]	[baŋau]	rafter
	<u>/-au/</u>	→	<u>/-o/</u>		

Example 13

Changing the diphthong /au/ to monophthong /o/ follows the order of the vowels in the existing vowel table. The double vowels (diphthongs)—a low middle vowel /a/ and a high back vowel /u/—show a tendency to change after a shift in their layout in the vowel table. This change will move towards the middle back vowel /o/. Movement will not be possible toward the front vowel. This movement is controlled by vocals that are located behind or in front of the vocal table. The vowel /a/ will not determine the direction of movement because the vowel /a/ is in the middle position; alternatively, it is more suitable to say it in a neutral position.

In forming the CML vocabulary from the ML vocabulary, the vowel /u/ in the middle of the word in ML changed and became the vowel /o/ in the CML vocabulary. The vowel change in the middle of a word relates to the vowel /u/. These changes can be formulated with the following rule:

/u-/ → /o-/

The changes described by the rule above can be seen in the example below.

No.	ML	CML	IL	Meaning
1.	[daun] /u-/ →	[daon] /o-/	[daun]	leaf
2.	[taun] /u-/ →	[taon] /o-/	[taun]	year
3.	[tuŋke?] /u-/ →	[tuŋke?] /o-/	[tuŋkat]	stick

Example 14

In Example 14, at first glance, Cases 1 and 2 appear to contain diphthongs because they display two vowels. Although the vowels stand side by side, they are not included in the diphthong group. The two vowels actually originate from two different syllables, namely from in the words [da-un] [da-on] (leaf) and [ta-un] [ta-on] (year). From the decomposition of the two words into two syllables, it appears that the double vowel that appears as a diphthong is actually not a diphthong. So, the vowel of the first syllable located at the end of the first syllable does not change anything. The change occurs only in the second vowel, which includes the second syllable of the word that was cut off earlier, namely the vowel /u/ changes (shifts down) to the vowel /o/. This can happen because the vowel /u/ and vowel /o/ are both located behind the vowel. The change in diphthong /ua/ in the middle of ML words tends to change to the vowel /o/ after it was absorbed by Chinese. The changes are patterned and follow the rule below:

/ua-/ → /o-/

The change of diphthong /ua/ to monophthong /o/ can be seen in the following example.

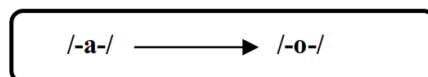
No.	ML	CML	IL	Meaning
1.	[jantuan] /ua-/ →	[janton] /o-/	[jantuan]	heart
2.	[jatuah] /ua-/ →	[jato] /o-/	[jatuh]	fall down
3.	[manganduan] /ua-/ →	[manjandon] /o-/	[mangandun]	contain

Example 15

Changes that occur in diphthongs follow the vowel layout that accompanies the vowel /a/. Changes usually revolve around the position of the phoneme, because the determinant is the front or back phoneme that is paired with the phoneme /a/, while the middle phoneme (/a/) only functions as accompaniment because it is neutral. The middle phoneme (/a/) is called a

neutral phoneme because, in ML, there is only one phoneme that is in the middle position, namely the phoneme /a/.

Because there is only one middle phoneme (phoneme /a/), the change in a diphthong containing the phoneme /a/ follows the change determined by the corresponding phoneme. The vowel /a/ changes to the vowel /o/ in the middle of this word. The change of vowel /a/ in the middle of a word to vowel /o/ follows the following rule:



An example of this type of change is the word [tabu] in ML, which changes to the word [tobu] in CML. Although the vowel of the original word has changed, the meaning of the word has not changed, and it still means cane in IL.

5.5 Implications for Second or Third Language Learning

In the era of globalization, local languages such as CML face significant challenges because of the dominance of global and national languages such as English and Indonesian. However, CML offers unique opportunities for language learning, cultural preservation, and identity formation. This section explores the implications of CML research with reference to four key areas: formal education, language preservation, cultural and social identity, and practical implementation.

The integration of CML in the formal education system in Padang presents a promising strategy for promoting multilingualism and intercultural understanding. By embedding CML in school curricula, particularly for subjects such as local culture, language arts, or regional studies, students can develop a deeper appreciation of linguistic diversity and heritage. For example, vocabulary related to traditional ceremonies such as *peminangan* (marriage proposal process) or festivals such as *Imlek* (lunar new year) can be taught alongside their linguistic structures. This aligns with the view of Gestiada and Tisoy (2025) that regional language learning should always be culturally contextualized to enhance comprehension and emotional connection.

Additionally, phonological changes observed in CML, such as the omission of the final vowel /a/ or simplification of diphthongs, can serve as valuable teaching tools for understanding cross-linguistic patterns between Minangkabau, Indonesian, and Mandarin. As McWhorter (2020) notes, creole languages often simplify the grammatical and phonological systems of their parent languages, which makes them ideal starting points for second or third language acquisition. Examples of practical classroom exercises are the following:

- Interactive role-play activities using CML phrases during simulated cultural events;

- Comparative exercises that require students to identify differences and similarities between CML and standard Minangkabau or Indonesian; and
- Multimedia projects that require students create short videos explaining CML vocabulary related to daily life or traditions.

Digital documentation and systematic archiving are essential strategies for preserving CML in an environment of rapid sociolinguistic change. Creating online dictionaries, interactive apps, and audio/video recordings of native speakers can ensure that future generations have access to authentic CML resources. According to Zabrodskaia and Ivanova (2021), digital documentation not only preserves endangered languages but also enhances accessibility and engagement.

For instance, platforms such as YouTube or TikTok could be used to host short lessons on common CML expressions used in markets, homes, or religious contexts. These efforts would support the broader goal of language revitalization and provide data for further linguistic research. Moreover, collaboration with universities such as Universitas Bung Hatta or Universitas Ekasakti could encourage the development of academic modules focused on CML linguistics, history, and sociocultural context. Such partnerships can help standardize teaching materials and train educators effectively.

CML plays a crucial role in shaping the cultural identity of the younger generation of ethnic Chinese in Padang. Learning CML enables them to connect with both their ancestral roots and the local Minangkabau community. Many CML words derive from Chinese culture, especially those related to family, rituals, and festivals, thereby demonstrating how language serves as a living repository of cultural memory (Kroskrity, 2023).

By engaging with CML, young learners gain insight into the way their ancestors adapted to Minangkabau society while maintaining elements of Chinese identity. This dual cultural awareness fosters a sense of belonging and pride, particularly in youth who may otherwise feel disconnected from either heritage. The following are examples of community-based implementation:

- Cultural festivals featuring CML storytelling sessions, traditional games, and folk songs;
- Intergenerational workshops at which elders teach youth CML expressions and customs;
- Community radio programs that broadcast news, interviews, and music in CML; and
- Other initiatives that not only preserve the language but also strengthen intergroup solidarity between the Minangkabau and Chinese communities.

Technology offers powerful tools for making CML learning more engaging and accessible. Interactive platforms such as mobile apps, podcasts, and e-learning portals can reach wide audiences, including diaspora communities interested in

reconnecting with their heritage. Muntendam and Muysken (2022) emphasize that technology increases learner motivation and facilitates immersive language experiences. Examples include the following:

- Language learning apps (e.g., Duolingo-style modules) that gamify CML vocabulary and grammar;
- Podcasts or vlogs that feature interviews with native speakers or dramatizations of everyday conversations;
- Online forums where learners can practice writing and receive feedback from fluent speakers; and
- Digital tools that complement traditional methods and allow for self-paced, lifelong learning.

To ensure the sustainability of CML, governments and civil society organizations must collaborate on multilingual education policies that recognize and support regional languages. Key policy actions could include:

- Integrating CML into local curriculum frameworks in Padang schools;
- Providing funding for teacher training programs focused on CML instruction, and modern pedagogical approaches;
- Developing standardized textbooks, learning modules, and assessment tools for CML at different proficiency levels; and
- Promoting public awareness campaigns that highlight the value of CML for preserving cultural identity and fostering unity.

Nero (2022) underscores that multilingual education enhances cross-cultural communication skills, which is especially relevant in Indonesia's diverse sociolinguistic landscape. With strategic policy support, CML can become a model for preserving and revitalizing other regional languages across the archipelago.

6. Conclusion

This study investigated the emergence of CML, a linguistic phenomenon resulting from centuries of contact between ML, IL, and CL in Padang, Indonesia. Analysis of 1,101 vocabulary items revealed that Minangkabau serves as the matrix language, by contributing the majority of structural and lexical elements, while Indonesian and Mandarin primarily contributed vocabulary. Systematic phonological changes, such as vowel omission, diphthong simplification, and consonant deletion, were identified, indicating a process of linguistic adaptation shaped by bilingual optimization strategies. These findings support existing theories of creolization while presenting a unique case of trilingual creolization, thereby expanding our current understanding of language contact dynamics in Southeast Asia.

The study contributes to theory by offering a model of creole formation involving three source languages, which is rare in global linguistics. Practically, CML holds significant potential as a tool for second and third language learning, especially in multilingual contexts. Its hybrid structure facilitates cross-linguistic

awareness and cultural understanding between communities. To preserve and promote CML, specific policy recommendations are proposed: integrating CML into local school curricula, developing teacher training programs focused on regional language instruction, and supporting digital documentation initiatives such as online dictionaries and interactive learning platforms. Future research should focus on creating standardized teaching materials, assessing learner attitudes toward CML, and exploring its sociolinguistic role in identity construction for younger generations of Chinese-Minangkabau descent. By addressing these areas, this study not only contributes to the field of contact linguistics but also supports efforts to sustain linguistic diversity in the face of globalization.

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