IJoLTE 10 (1) (2026)
E-ISSN: 2598-2303
International Journal of Language Teaching and Education
https://online-journal.unja.ac.id/IJoLTE
DOI: 10.22437/ijolte.v10i1.56549

Internal and External Reform of Javanese Language in Deli Javanese Dialect in Binjai City: A Phonological and Lexicon Study

Edy Suprayetno
Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia
Corresponding author email: edysuprayetno@umsu.ac.id

Info Article
Received: 31 Dec 20xx
Revised: 11 June 2026
Accepted: 19 June 2026
OnlineVersion: 22 June 2026

Abstract
The Javanese language of the Deli dialect in Binjai City developed in a multilingual situation that brought Javanese speakers together with Indonesian, Deli Malay, and other language elements in everyday communication. This study aims to describe the forms of internal and external renewal of the Javanese language of the Deli dialect in Binjai City, especially in the aspects of phonology and lexicon. The study used a diachronic linguistic approach with a qualitative descriptive method. Data in the form of lingual units showing sound changes, changes in form, and vocabulary replacement were collected through the listening method and the conversation method with the techniques of tapping, noting, recording, fishing, speaking semuka, and vocabularies. Analysis was carried out through the classification of phonological and lexical changes, determination of retention and innovation, and the principles of lexicostatistics and dialectometry. The results showed 39 variants of internal renewal and 26 variants of external renewal. Internal renewal is seen in vowel changes, consonant changes, phoneme additions, phoneme deletions, and changes in form that are not yet fully patterned. External changes primarily occur through lexicon changes resulting from contact with Indonesian, Malay/local languages, English, and product names. These findings confirm that the Deli Javanese dialect in Binjai City retains a number of Javanese characteristics, but also exhibits phonological and lexical adaptations resulting from the social dynamics of the diaspora community.

Keywords: Language renewal; Javanese; Deli Javanese dialect; Phonology; Lexicon

This is open access article under the CC -BY licence

INTRODUCTION

Language is a communication system that continuously changes in response to social and cultural developments, mobility, and the intensity of contact between groups of speakers. Change can occur internally through mechanisms within the language system, such as sound changes and word-form restructuring, or externally through language contact, borrowing, code-switching, and lexical adjustments. From a contemporary sociolinguistic and dialectological perspective, language variation is understood as a trace of social relations, migration history, geographic distribution, and the dynamics of speaker identity

(Pepinsky et al., 2024; Septianingtias et al., 2024; Wibowo, 2024; Wijayanti, 2024).

Javanese is a regional language with a large number of speakers and widespread distribution in Indonesia. Its distribution is not limited to the island of Java, but also extends to various regions outside Java, including North Sumatra. In North Sumatra, the presence of Javanese descendants is linked to migration history, plantation labor, transmigration, and socioeconomic mobility. In this region, a variety known by the community as Deli Javanese or the Deli Dialect of Javanese has developed. A study of Javanese language mapping in Medan shows that the Javanese spoken by Javanese descendants in the city has been influenced by ethnic languages in Medan, thus becoming known as Medan Javanese or the Deli Dialect of Javanese (Rahmah, n.d.).

Binjai City is a relevant area for observing these dynamics, as Deli Javanese speakers live side by side with speakers of Indonesian, Deli Malay, Batak, and other languages. Daily social contact enables the internal and external renewal of the languages used by the community. Studies of Deli Javanese in North Sumatra show that the linguistic and cultural identity of the Deli Javanese community is dynamic, influenced by social interaction, education, media, and integration with multilingual communities (Sutikno et al., 2024; Sutikno et al., 2025). In the context of interethnic families and urban communities, the use of regional languages is also closely related to intergenerational transmission, language attitudes, and everyday language choices (Benu et al., 2022; Fitriati, 2023; Fitriati et al., 2025; Sitinjak & Harianja, 2022).

Language innovation in this study is understood as changes in linguistic units from their original form, whether in the form of sound changes, changes in word structure, or vocabulary replacement. In dialectology, innovation can be divided into internal innovation and external innovation. Internal innovation arises from the development of the language system itself, while external innovation arises from contact with other languages or because speakers adopt new forms in certain communication domains. Recent studies have shown that phonological and lexical changes can be observed through sound correspondences, substitutions, additions, omissions, lexicon comparisons, and measurements of dialectal proximity (Ahya et al., 2022; Dicta et al., 2021; Ghali et al., 2024; Malihatun et al., 2022; Mukaromah et al., 2025; Sari, 2024; Saputra & Masykuri, 2023).

Several studies over the past five years have shown that phonological and lexicon variation are important indicators in the study of dialect geography and regional language change. Studies of Ambal Javanese demonstrate phonemic variation and sound changes within local speech communities (Malihatun et al., 2022), while studies of Pekalongan Javanese demonstrate phonemic and lexical variation related to geographic distribution and social contact (Sari, 2024). Other studies of the Temanggung-Banyumas, Nganjuk-Jombang, Malang-Blitar, and Yogyakarta dialects also confirm that vowel changes, consonant changes, vocabulary relationships, and dialectometry can be used to map the proximity and differences between Javanese varieties (Ahya et al., 2022; Dicta et al., 2021; Ghali et al., 2024; Mukaromah et al., 2025; Wibowo, 2024; Wijayanti, 2024). On the other hand, research on language vitality and language maintenance shows that speaker attitudes, family language policies, urbanization, and cultural activities play a role in the sustainability of regional languages (Benu et al., 2022; Fitriati, 2023; Fitriati et al., 2025; Hadiwijaya et al., 2022; Pepinsky et al., 2024; Putri et al., 2025; Septianingtias et al., 2024; Sitinjak & Harianja, 2022; Sutikno et al., 2024; Sutikno et al., 2025).

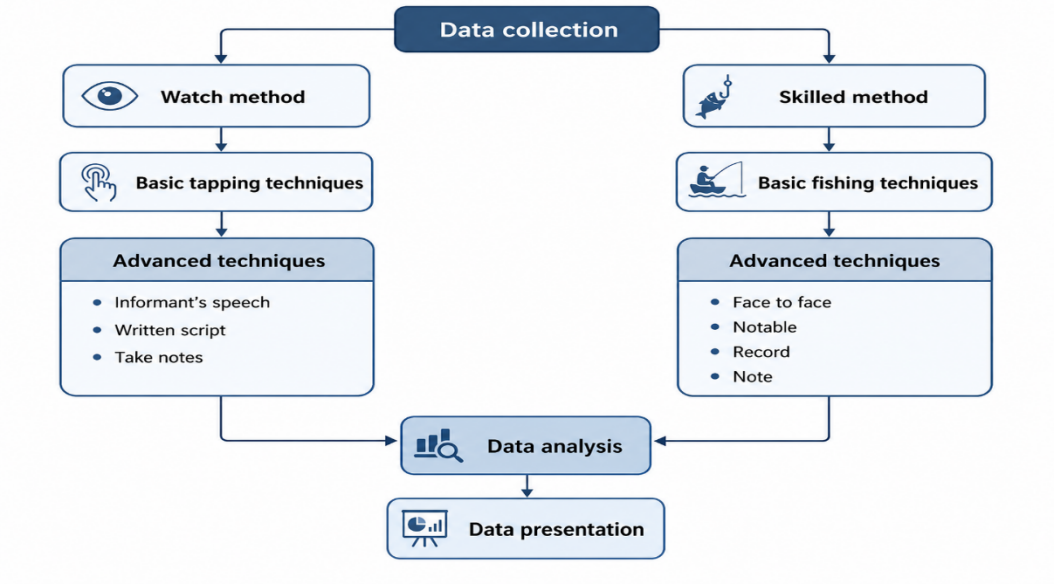
Previous studies on Javanese Deli have generally discussed its sociolinguistic position, language maintenance, lexical variation, and contact with Malay and Indonesian in North Sumatra. However, these studies have not yet provided a detailed explanation of how the Javanese language in the Deli dialect undergoes renewal through both internal linguistic mechanisms and external social influences, particularly in the local context of Binjai City. In addition, most previous studies tend to describe the existence and use of Deli Javanese rather than analyze the specific forms, causes, and directions of linguistic renewal that occur within the speech community. Therefore, research that specifically focuses on the internal and external renewal of the Javanese language in the Javanese Deli dialect in Binjai City is still limited. This study seeks to fill that gap by examining the linguistic changes that emerge from within the language system as well as those influenced by language contact, social interaction, and the multilingual environment of Binjai City.

RESEARCH METHODS

This research employs a diachronic linguistic approach with a qualitative descriptive method. The diachronic approach was used because the research seeks to trace the form of language renewal by comparing the original form of Javanese with the variants used by Deli Javanese speakers in Binjai City. The qualitative descriptive method was chosen to describe the data in detail based on the phonological and lexical phenomena that emerge in the speakers' speech.

The research data consists of lingual units in the Javanese Deli dialect that exhibit symptoms of internal and external renewal. The data include word forms, sound variations, and vocabulary used in everyday communication. The research data sources are Javanese speakers of the Javanese Deli dialect who live in Binjai City. Informants 20 were selected based on their ability to use the Javanese Deli dialect, their involvement in local social communication, and their willingness to provide linguistic data.

Data collection was conducted using the listening and speaking methods. The listening method is used to obtain data by observing speakers' language use. In its implementation, this method utilizes tapping, note-taking, and recording techniques. The speaking method is used to obtain data through direct interaction with informants. The techniques used include fishing and face-to-face conversation. The choice of these techniques aligns with the trend in recent dialectology and sociolinguistic research that relies on informant speech, vocabulary lists, observation, recording, and interviews as the basis for analyzing phonological and lexical variation (Malihatun et al., 2022; Mukaromah et al., 2025; Sari, 2024; Wibowo, 2024).



Picture 1. Data Collection

The data were analyzed through four stages. First, the data were identified to find forms that showed signs of renewal. Second, the data were classified by type of change: vowel change, consonant change, phoneme addition, phoneme deletion, form change, and lexicon replacement. Third, the data were interpreted to determine whether the changes originated from the internal language system or were influenced by language contact. Fourth, the data were compared using the principles of lexicostatistics, linguistic similarity, and dialectometry. Dialectometry was used qualitatively as a framework to examine similarities and differences among linguistic forms, not as a final quantitative calculation.

RESULTS AND DISCUSSION

Results

Based on the results of data collection and classification, two main forms of language renewal in the Deli dialect of Javanese in Binjai City were identified: internal renewal and external renewal. Internal

renewal is more prominent in the phonological domain, while external renewal is more prominent in the lexicon domain. Overall, 39 variants of internal renewal and 26 variants of external renewal were found. A summary of the findings is presented in Table 1.

Table 1. Recapitulation of the Form of Javanese Language Renewal in the Deli Javanese Dialect in Binjai City

No.	Update type	Linguistic domain	Amount of data	General form of change
1	Internal updates	Phonology and lexicon	39 variants	Vowel changes, consonant changes, addition of phonemes, deletion of phonemes, and changes in form that have not been fully identified.
2	External updates	Lexicon	26 variants	Vocabulary changes due to the influence of Indonesian, Malay/local languages, English, and product names
3	Pattern not yet identified	Phonology/lexicon	2-3 variants	Changes in form that cannot be explained by regular phonological patterns

Internal Update of the Javanese Language of the Deli Javanese Dialect in Binjai City

Internal renewal is a change that arises from the mechanisms of the language system itself. In research data, internal renewal is evident in changes in vowel and consonant sounds, phoneme additions and deletions, and changes in form. These forms indicate that the Javanese language of the Deli dialect in Binjai City not only maintains its original elements but also develops distinctive phonological realizations in accordance with the local speech habits.

Table 2. Internal Update of the Javanese Language of the Deli Javanese Dialect in Binjai City

No.	The original form of Javanese	Javanese Deli Variants in Binjai	Meaning	Update pattern
1	Kecêlêk	Kecilêk	Late/got nothing	Vocal changes
2	Kadingarên	Listen	Surprise	Phoneme deletion and vowel changes
3	Ablution	Udun	Boil	Initial consonant omission
4	Gapyok	Gaprok	Accidentally met	Consonant changes
5	Wudar	Air	Unraveled	Initial consonant omission
6	Wengi	Bengi	Evening	Consonant changes
7	Gedê	Gedi	Big	Vocal changes
8	Woco	Boco	Read	Consonant changes
9	Ambu	Tainted	Smell	Addition of initial consonants
10	Anggon	Nggon	Place	Initial vowel omission
11	Herding	Ngon	Shepherding	Initial vowel omission
12	Anom	Name	Young	Initial vowel omission
13	For	Intuk	Can	Vocal changes
14	Wow	Wow	Bearing fruit	Vocal changes
15	Awur	Nonsense	Random	Addition of initial consonants
16	Blesek	Mblesek	Sunken	Addition of nasal consonants

No.	The original form of Javanese	Javanese Deli Variants in Binjai	Meaning	Update pattern
17	Brangasan	Bringasan	Easy to get angry	Vocal changes
18	Brobos	Mbrobos	Enter through the gap	Addition of nasal consonants
19	Brojol	Mbrojol	Exit prematurely	Addition of nasal consonants
20	Handful	Girl	Wipe	Vocal changes
21	Cedak	Cedek	Near	Vocal changes
22	Cendak	Cendêk	Short	Vocal changes
23	Come loose	Fried rice	Regardless	Vocal changes
24	Tomorrow	Isuk	Morning	Vocal changes
25	Ider	Ngider	Trading around	Addition of initial consonants
26	Ing	Miss	In	Pattern not yet identified
27	Still	Ijek	Still	Pattern not yet identified
28	Starling	Njaluk	Ask for	Addition of nasal consonants
29	Jomplang	Njomplang	Not balanced	Addition of nasal consonants
30	Jujug	Njujug	Go straight to	Addition of nasal consonants
31	Kademan	Comfort	Freezing	Vowel additions and form changes
32	Gift	Keadohen	Distance	Vowel additions and form changes
33	Kakehan	Awesomeness	Most	Vocal addition
34	Receptacle	Adah	Place	Initial consonant omission
35	Wetu	Metu	Go out	Consonant changes
36	Man	Uncle	Person	Initial vowel addition
37	Entong	ladle	ladle	Addition of initial consonants
38	Wesi	Iron	Iron	Consonant changes
39	Wates	Bates	Limit	Consonant changes

Table 2 shows that vowel changes are quite productive, for example, antuk becomes intuk, esuk becomes isuk, and gedê becomes gedi. These changes indicate an adjustment in vowel quality in Deli Javanese speech. Furthermore, consonant changes are also seen in the forms wengi becomes bengi, woco becomes boco, wesi becomes besi, and wates becomes bates. The change from /w/ to /b/ in some of the data is interesting because it can be read as a tendency for labial-semivocal consonants to be substitutable labials in certain speech environments.

Another prominent pattern is the addition of nasal consonants at the beginning of words, such as jaluk becoming njaluk, jomplang becoming njomplang, and brojol becoming mbrojol. This phenomenon indicates prenasalization, or the addition of nasals, which is common in Javanese varieties. Conversely, the omission of initial phonemes is seen in wudun becoming udun, wudar becoming udar, Wadah becoming adah, and anom becoming nom. This omission of initial phonemes indicates a tendency towards simplification in everyday speech.

Table 3. Classification of Internal Update Patterns

No.	Internal update pattern	Sample data	Amount of data	Information
1	Vocal changes	antuk -> intuk; esuk -> isuk; gedê -> gedi	10	There is a change in the vowel sound at a certain position in a word
2	Consonant changes	wengi -> bengi; woco -> boco; wesi -> iron	6	There is a replacement of consonant sounds
3	Vocal addition	wong -> uwong	1	There is an addition of a vowel at the beginning of a word
4	Addition of consonants	inconsequential -> inconsequential; jaluk -> njaluk; ambu -> mambu	10	Generally in the form of adding a nasal sound at the beginning of a word
5	Vowel additions and form changes	kademan -> keademen; kadohan -> keadohen	3	There is an expansion of word forms and changes in vowels.
6	Initial phoneme deletion	ablution -> udun; container -> adah; anom -> nom	6	There is a loss of vowels or consonants at the beginning of a word
7	The removal of more than one phoneme accompanied by a change in vowel	kadingarên ->dengarên	1	More complex shape changes
8	Pattern not yet identified	ing -> neng; isih -> ijek	2	Requires further study

The classification in Table 3 shows that internal changes are not entirely random. Most of the data can be explained through phonological mechanisms such as substitution, epenthesis, prothesis, and apheresis. However, the transformation of ing into neng and isih into ijek cannot be fully explained as regular phonological changes because they involve further differences in form. Therefore, these two forms require further study through historical data, the distribution of informants, and the frequency of use in natural communication.

External Update of the Javanese Language of the Deli Javanese Dialect in Binjai City

External renewal is a language change influenced by contact with other languages. In the context of Binjai City, Deli Javanese speakers live in a multilingual environment, making contact with Indonesian, Deli Malay, English, and elements of modern languages difficult to avoid. Research data indicate that external renewal involves more lexicon replacement than purely phonological change.

Table 4. External Update of the Javanese Language of the Deli Javanese Dialect in Binjai City

No.	The original form of Javanese	Update variant	Meaning	Alleged source of influence
1	Lara	Sake	Sick	General Indonesian/Javanese
2	Lemut	Mosquito	Mosquito	Local Malay/Indonesian
3	Kecêlêk	Small	Late/got nothing	Local lexical variations
4	Earthquake	Earthquake	Earthquake	Indonesian

No.	The original form of Javanese	Update variant	Meaning	Alleged source of influence
5	Rêwang	Lagan	Helping out at celebrations	Malay/local language
6	Ngelakokno	Raning	Accelerate transportation	Local English/Indonesian
7	Pit	Liring	Bicycle	Local language
8	Pit	Bicycle	Bicycle	Indonesian
9	Motor pit	Crete	Motorcycle	Local language/Malay
10	Motor pit	Honda	Motorcycle	Product brand name
11	Car	Motorcycle	Car	Lexical variation
12	Dog	Anjêng	Dog	Indonesian/Malay
13	Wit	Main Point	Tree	Malay language
14	Then	Kumor	Gargle	Phonological/lexical variation
15	Wudar	Air	Unraveled	Phonological variation
16	Gedhang	Banana	Banana	Indonesian
17	Wesi	Iron	Iron	Indonesian
18	Wates	Bates	Limit	Indonesian/Malay
19	Woco	Read	Read	Indonesian
20	Stupid	Riroyo	Holiday	Local lexical variations
21	sprouts	Bean Sprouts	Bean sprouts	Indonesian
22	Entong	ladle	Ladle	Indonesian
23	Take	Klopo	Coconut	Common Javanese/local variations
24	Telo	Sweet potato	Cassava/sweet potato	Indonesian
25	Yuto	Million	Million	Indonesian
26	Bayu	Angên	Wind	Lexical variation

Table 4 shows that Indonesian influence is evident in the forms lindu (earthquake), pit (bike), gedhang (banana), telo (sweet potato), yuto (million), and woco (read). These forms demonstrate the replacement of Javanese vocabulary by Indonesian, which is more widely used in education, administration, media, and interethnic communication. In the context of a multilingual society, this type of lexicon replacement can be understood as a communication strategy to ensure speech is easily understood by diverse interlocutors.

Malay/local influences are evident in the forms wit (main), lemut (nyamok), and rêwang (lagan). These forms demonstrate that Deli Malay and local varieties contribute to the formation of the Javanese Deli vocabulary. Furthermore, product names are used as generic terms, such as "pit motor" (motorcycle), which becomes "Honda" (motorcycle). This phenomenon demonstrates the generalization of brands in everyday communication. English/modern influences are evident in running, which is thought to originate from running. Although limited in number, this data demonstrates that external updates originate not only from surrounding regional languages but also from modern vocabulary introduced through technology, media, and social mobility.

Table 5. Classification of External Update Sources

No.	Source of influence	Sample data	Forms of influence
1	Indonesian	lindu -> earthquake; pit -> bicycle; gedhang -> banana; telo -> sweet potato	Replacing Javanese lexicon with Indonesian vocabulary

No.	Source of influence	Sample data	Forms of influence
2	Malay/local language	wit -> principal; moss -> mosquito; rewang -> lagan	The influence of local vocabulary due to social contact
3	English/modern	ngelakokno -> raning	The influence of foreign terms in modern communication
4	Product/brand name	pit bike -> honda	Extension of brand name to common name
5	Local variation of Javanese Deli	stupid -> riroyo; take -> klopo	Changes in vocabulary in local speech communities

DISCUSSION

The findings of this study demonstrate that the renewal of the Javanese language in the Deli dialect in Binjai City operates through two pathways. The first pathway is internal renewal, which occurs through sound changes and adjustments to form. The second pathway is external renewal, which arises from language contact and the need for cross-group communication. These two pathways are not always completely separate. Some forms can be read as both phonological changes and the result of contact with another language, for example, wesi becomes besi, and wates becomes bates. In such cases, the data must be viewed as the result of the interaction between the internal language system and external pressures from the dominant language.

Phonologically, the data shows a tendency for /w/ to be substituted for/b/ or the omission of /w/ at the beginning of words. The forms wengi become bengi, woco become boco, wesi become besi, wates become bates, wudun become udun, wudar become udar, and Wadah become adah indicate that the initial phoneme is a position that is susceptible to change. Changes in the initial position of words can be read as part of the symptoms of substitution, apheresis, prothesis, and phonological adjustment, which are also found in recent studies on Javanese dialect variation (Ghali et al., 2024; Malihatun et al., 2022; Mukaromah et al., 2025; Saputra & Masykuri, 2023; Wijayanti, 2024).

From a lexicon perspective, external updates demonstrate the strong influence of Indonesian and Malay/local languages. This is in line with the social conditions of the Javanese community in North Sumatra, which has experienced assimilation with the Malay community and uses Indonesian as a lingua franca. Recent studies on Deli Javanese and multilingual families indicate that social contact, family language choice, and the dominance of the national language can influence the transmission of regional languages and vocabulary replacement in everyday communication (Fitriati, 2023; Fitriati et al., 2025; Sitinjak & Harianja, 2022; Sutikno et al., 2024; Sutikno et al., 2025). Thus, the emergence of forms such as gempa (earthquake), sepeda (bicycle), pisang (banana), ubi (sweet potato), and baca (read) in Deli Javanese speech can be understood as a consequence of intensive language contact.

These findings also reinforce the importance of documenting regional languages in diaspora areas. Deli Javanese is not simply a deviation from standard Javanese, but rather a variety with its own logic of change. This variety records the history of migration, interethnic relations, and adaptation strategies of the Javanese people in North Sumatra. From the perspective of dialectology and language vitality studies, these changes demonstrate that linguistic identity is not static but is continually negotiated through everyday communication practices, social environments, and family language policies (Benu et al., 2022; Hadiwijaya et al., 2022; Pepinsky et al., 2024; Putri et al., 2025; Septianingtias et al., 2024; Sutikno et al., 2025).

The implications of this research are the need for further, more quantitative studies using dialectometric measurements across sub-districts in Binjai City and the surrounding area. Further research should also consider variables such as age, education, mobility, and language use to determine whether the changes found are a general phenomenon in the community or limited to specific speaker groups. Furthermore, audio documentation should be included so that phonological changes can be analyzed acoustically and articulatoryly.

CONCLUSION

This study concludes that the Deli dialect of Javanese in Binjai City has undergone internal and external changes in phonology and lexicon. Internal changes were found in 39 variants, including vowel changes, consonant changes, phoneme additions, phoneme deletions, vowel additions and form changes, as well as several patterns that have not been fully identified. The most prominent internal changes are vowel changes and the addition of nasal consonants, while other changes are seen in initial phoneme deletions and consonant substitutions.

External updates were found in 26 variants, primarily in the form of lexicon changes influenced by Indonesian, Malay/local, English, product names, and local variations of Javanese Deli. The influence of Indonesian appears dominant because it is widely used in inter-ethnic communication and formal spheres. The influence of Malay/local indicates an adaptation to the social environment of North Sumatra, while the use of product names and modern terms indicates the introduction of new elements into everyday communication.

Theoretically, these findings reinforce the view that language change in multilingual communities occurs through the interaction of internal and external factors. Practically, this research contributes to documenting the Deli dialect of Javanese as a Javanese language variety in diaspora areas. Further research is recommended using broader data, a larger number of informants, more detailed geographic mapping, and acoustic analysis to ascertain patterns of phonological change that have not yet been identified.

REFERENCES

Ahya, AS, Subakti, HS, & Surotin, S. (2022). The Relationship between Nganjuk Javanese and Jombang Javanese (A Lexicostatistical Study). Linguista: Scientific Journal of Language, Literature, and Learning, 6(1), 51-58. https://doi.org/10.25273/linguista.v6i1.12681

Benu, NN, Artawa, IK, Satyawati, MS, & Purnawati, KW (2022). Local language vitality in Kupang city, Indonesia: A linguistic landscape approach. Cogent Arts & Humanities, 10(1), 2153973. https://doi.org/10.1080/23311983.2022.2153973

Dicta, PN, Rafli, Z., & Ansoriyah, S. (2021). Comparison of the lexicon of the Malang dialect of Javanese and the Blitar dialect of Javanese. Jurnal Bastrindo, 2(2), 125-137. https://doi.org/10.29303/jb.v2i2.278

Fitriati, A. (2023). The family language policy of Javanese multilingual families. Journal of Language and Literature, 23(2), 405-415. https://doi.org/10.24071/joll.v23i2.7020

Fitriati, A., Nirwinastu, DG, & Tantio, HA (2025). Exploring teenager's language attitudes towards Javanese language. Journal of Language and Literature, 25(1), 263-273.

Ghali, AA, Ahya, AS, & Mu'minin. (2024). Assimilation sound changes in the Nganjuk and Jombang dialects of Javanese (A comparative historical linguistic study). Paradigma: Journal of Philosophy, Science, Technology and Socio-Culture, 30(3), 142-150.

Hadiwijaya, M., Kinanti, KP, & Puspitasari, ID (2022). Youth and indigenous language: Assessing Javanese Krama Madya language vitality. Journal of Indonesian Social Sciences and Humanities, 11(3), 397-406. https://doi.org/10.23887/jish.v11i3.44545

Malihatun, M., Junawaroh, S., & Nurdiyanto, E. (2022). Phonological system and its dynamics in Javanese in Ambal District, Kebumen Regency. Humanika, 29(2), 186-200. https://doi.org/10.14710/humanika.v29i2.48780

Mukaromah, SLN, Rahayu, A., Meliyana, R., Hutabarat, EN, & Baehaqie, I. (2025). Contrastive phonology of Javanese Temanggung dialect and Javanese Banyumas dialect. Paramasastra: Scientific Journal of Language, Literature and Learning, 12(1), 63-81. https://doi.org/10.26740/paramasastra.v12n1.p63-81

Pepinsky, T., Ravindranath Abtahian, M., & Cohn, A. C. (2024). Urbanization, ethnic diversity, and language shift in Indonesia. Journal of Multilingual and Multicultural Development, 45(7), 2503-2521. https://doi.org/10.1080/01434632.2022.2055761

Puspandari, LE, & Tricahyaningati, D. (2026). Dialectological analysis of Arekan, Mataraman, and Pendhalungan regional linguistic features in East Java. Indonesian Journal of Applied Linguistics, 15(3). https://doi.org/10.17509/6kd1sp97

Putri, DY, Barokah, R., Savitri, NR, Subandowo, D., & Siagiyanto, BE (2025). Language heritage maintenance of Javanese Krama Inggil through traditional cultural activities in Komering Putih Village. Rainbow: Journal of Literature, Linguistics and Culture Studies, 14(1), 87-97. https://doi.org/10.15294/rainbow.v14i1.19942

Saputra, R., & Masykuri, A. (2023). Analysis of Javanese phonological variation. Sintaksis: Publication of English Language and Literature Experts, 1(6), 38-47. https://doi.org/10.61132/sintaksis.v1i6.227

Sari, IM (2024). Javanese language phonemic and lexicon variations in Pekalongan City: A dialectological study. Surakarta English and Literature Journal, 7(1), 19-39.

Septianingtias, V., Wahya, Nur, T., & Ariyani, F. (2024). Lexical variation in the Lampung language, Indonesia. Cogent Arts & Humanities, 11(1), 2309740. https://doi.org/10.1080/23311983.2024.2309740

Sitinjak, VN, & Harianja, N. (2022). Maintain or shift? Focus on inter-ethnic families in Indonesia. International Journal on Linguistics of Sumatra and Malay, 1(1).

Sutikno, S., Zakaria, ZB, Kartolo, R., Asnawi, A., & Nasution, B. (2024). Sociolinguistic representation of the Deli Java community's culture in North Sumatra Province. Evolutionary Studies in Imaginative Culture, 1068-1077.

Sutikno, S., Rohmadi, M., Siam, NU, Afrida, D., Andriany, L., Kizi, YDK, Soliev, M., & Herman. (2025). The social role of the Java Deli community in shaping the language and cultural identity of Javanese descendants born in Sumatra. Forum for Linguistic Studies, 7(7), 257-269. https://doi.org/10.30564/fls.v7i7.10109

Wibowo, RM (2024). Vocabulary development and kinship level of Javanese dialect: Dialect geography studies. Allure Journal, 4(2). https://doi.org/10.26877/allure.v4i2.18415

Wijayanti, KD (2024). A study of Javanese phonology based on a diachronic review. Widyaparwa, 52(1), 19-30. https://doi.org/10.26499/wdprw.v52i1.1174