

# A Morphological Analysis: A Trend of the English Suffix “-less” in Indonesian Words on X/Twitter

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**Abstract:** The widespread use of English by people from various parts of the world has led to the emergence of new vocabulary, including the process of affixation between English and Indonesian words. By analyzing samples of common Indonesian words attached with the suffix ‘-less’, this research aims to discuss the use of the suffix ‘-less’ in Indonesian words and how it is used in context. The method used in this research is descriptive qualitative. Data sources were obtained from Indonesian words containing the suffix ‘-less’ that appear in posts, comments, and quotes from X/Twitter users in Indonesia. The data then analyzed based on the theory of word formation as a sub discipline of morphology by Lieber (2009). This research finds that the application of the suffix ‘-less’ is more often found attached to nouns and is rarely found attached to verbs.

**Keywords:** morphological analysis, language creation, affixation

## Introduction

Language is a complex system of communication that allows us to express our thoughts, feelings, and emotions to others. Gorys (1997) defines language as a tool of communication between members of society in the form of sound symbols produced by human tools. When communicating, differences in individuals' backgrounds can influence how they use language. According to Fishman, factors such as participants (who is speaking), setting (social context), and the topic of conversation influence the choice of language variety used (Holmes, 2001, p. 21). These three factors are generally known as the concept of language domains. Language is a dynamic and ever-changing system of communication used by a society to interact and convey messages (Abrar, 2018; Berry, 2019; Bjerva, 2019; Coombe, 2020; Declerck, 2020; Jawahar, 2020; Jiang, 2020; Little, 2020; Ly, 2018; McKay, 2018; Pangrazio, 2020; Treffers-Daller, 2019). This dynamic nature can be seen in the changes that occur in words over the time. Morphology plays a crucial role in the evolution of language. Morphology is the study of the structure and construction of words (Bauer, 2020; Blevins, 2020; Coughlin, 2019; Engelmann, 2019; Granlund, 2019; Jianwei, 2021; Özateş, 2018; Semushina, 2019; Zawiszewski, 2020; Zmigrod, 2020). It deals with the rules that change word meaning, such as roots, prefixes, and affixes. Lieber (2009) states that morphology is the study of word formation, including how new words are created in languages around the world, and how word forms vary depending on how they are used in sentences.

Over time, languages change, and new words are created by adding or changing morphemes. For example, the use of the word formation suffix “-less” has become increasingly popular. It means “without” or “lacking”. The language we employ significantly influences the formation of our civilization. The ease of communication, particularly through various methods, supports increased creativity in language usage. Suffixes like “-less”, which are frequently used in English to change the form from noun to adjectives (O’Grady & Archibald, 2016), have a significant impact on word formation. In morphology, a suffix is a type of affix that is added to the end of a word to create a new word or to modify the meaning or function of the base word. It is remarkable to note that these suffixes are not limited to the English language. They are also used with modified versions of Indonesian terms, such as in the words “*capekless*” (without fatigue), “*otakless*” (without brains), and “*pacarless*” (without a boyfriend or girlfriend). The combination of “-less” suffixes in Indonesian words is becoming increasingly popular, especially among the younger demographic who are enthusiastic users of social media.

This trend of linguistic experimentation and language variation can be easily observed on platforms like X/Twitter. X/Twitter, an online social media platform, enables users to communicate via concise text-based messages known as tweets. Twitter serves as a digital town square for public conversations, news, entertainment, sports, and political discussions. This social networking site allows individuals to freely express themselves and engage in

diverse forms of language experimentation. Formerly known as Twitter, it underwent a rebranding in 2023 and was renamed X. The rebranding initiative was driven by CEO Elon Musk, who conceptualized X/Twitter as a multifaceted application that transcends its role as a mere social media platform. Despite undergoing name changes, X/Twitter remained one of the leading social media platforms in Indonesia. As of January 2023, Indonesia has 24 million X/Twitter users, making it the third-largest country in terms of X/Twitter users, behind India and Brazil (Woodward, 2023). It facilitated individuals to express their ideas, participate in discussions, and explore linguistic possibilities.

Certainly, the existence of the process of affixation of Indonesian words and English affixes or vice versa has been raising many interesting issues for several previous researchers to conduct a study. Several studies which are relevant to this issue such as a thesis by Khotimah (2012) and an article by Rasika (2022) in mobile guide and tabloid that discuss the affixation process between English words and Indonesian affixes, then an article by Pasa and Mahyuni (2023) that discuss language variation in slang words used by millennials on social media. Certainly, the existence of the process of affixation of Indonesian words and English affixes or vice versa has been raising many interesting issues for several previous researchers to conduct a study. Several studies which are relevant to this issue such as a thesis by Khotimah (2012) and an article by Rasika (2022) in mobile guide and tabloid that discuss the affixation process between English words and Indonesian affixes, then an article by Pasa and Mahyuni (2023) that discuss language variation in slang words used by millennials on social media.

Through this research paper, a deep examination of the forming process of Indonesian words containing the suffix “-less” will be conducted to see the patterns formed based on the concept of morphology. In addition, this paper aims to categorize the words based on the category (part of speech) of root words preceding them.

## Methodology

This study used a descriptive qualitative method which is carried out by describing each data and its characteristics in the form of qualitative information. This aligns with John W. Creswell’s perspective on qualitative approach, emphasizing a profound understanding of phenomena that do not necessarily require quantification (Creswell, 2009).

The objects that will be used as data sources of this research are the Indonesian words containing the suffix “-less”. The data is needed to portray how those words appear in posts, comments, and quotes by X/Twitter users in Indonesia. The data was collected using the methods of observation and note-taking. The researcher observed several posts on X/Twitter containing the Indonesian word with suffix “-less”, then selected, recorded, and presented them in a descriptive way. After the use of those words are depicted, the data will be

analyzed to figure out their forming elements by the concept of language unit breakdown. Further analysis is carried out by categorizing each word according to the kind of part of speech of its root word.

This kind of analysis is generally conducted using a morphological approach. The main theory that will primarily be used to carry out the analysis in this research is the theory of word formation as a subdiscipline of morphology by Lieber (2009), and several supporting theories.

## Result and Discussion

### 1. The Application of English Suffix “-less” to Indonesian Noun

Nouns are a type of word that have distinct properties in terms of syntax. They are rarely being paired with the negative particle *no* or “*tidak*” in Indonesian language. Also, according to Kridalaksana (2008, p. 68), they may be preceded by the particle “*dari*”. Among the data collected, the author identified language variations using the suffix “-less” in the category of nouns, such as “*akhlakless*”, “*otakless*”, “*bebanless*”, “*adabless*”, “*faedahless*”, and “*kerjaless*”. Therefore, the forming pattern of suffix “-less” into Indonesian nouns can be observed in the contexts below.

- (1) “*emang ganteng si kak mukanya tp **akhlakless** beliau ini*”

The word “*akhlakless*” is a creative combination of Indonesian word “*akhlak*” (character or morals) with the suffix “-less”. The word implies a meaning that someone’s character or morality is lacking or deficient. This idea corresponds to the idea of privative affixes, which essentially mean “without X”. In English, the common suffix “-less” (e.g., “*shoeless*” or “*hopeless*”) is used to denote the absence of something (Lieber, 2009). The post above appears to be saying that the person being addressed is physically handsome, but he lacks moral character or manners, as conveyed by the term “*akhlakless*”. It indicates displeasure or disapproval of the person’s behavior or character.

- (2) “*Buka twitter niatnya pgn nyari inspirasi buat judul essay soal kesetaraan gender, malah berujung emosi gara² tulisan tolol manusia² **otakless***”

The word “*otakless*” is not a common Indonesian word. It is a unique term produced by combining the Indonesian word “*otak*” (meaning “brain” or “mind”) with the English suffix “-less”, which denotes a lack of something. As a result, “*otakless*” suggests a lack of intelligence or rational thought. The phrase “*otakless*” is used in this post to indicate the user’s anger with what they regard to be thoughtless or unintelligent things they encountered on X/Twitter while looking for some inspiration. The post implies that the user initially wanted to open X/Twitter in order to gather inspiration for writing a gender equality essay. However, their experience on the site was frustrating, resulting in emotional

pain as a result of unintelligent content published by others which they then address as “otakless”.

(3) *“seneng bgt ngeliatin foto jaman maba karena terlihat **bebanless**”*

In this instance, “*bebanless*” is derived from Indonesian word “*beban*”, which translates to “burden” or “load”, and the suffix “-less”, commonly used in English to indicate the absence of something. The speaker seems to employ this linguistic fusion to convey a sense of carefree or unburdened nostalgia associated with the depicted period of university life. The term encapsulates a sentiment of freedom from academic or life pressures, suggesting a time characterized by a lack of heavy responsibilities.

(4) *“lagi bersih<sup>2</sup> chat wa grup, gila klo dipikir<sup>2</sup> dulu kurang ajar alias **adabless** bgt ama guru sma. prik total pokoke, maafkn ak yh guru.”*

Here, the use of the term “*adabless*” suggests a combination of “*adab*” (etiquette or manners) and “-less”, possibly indicating a lack of proper behavior. It implies the speaker's perspective on the need for cleanliness in the group chat, and express a sense of shock or disbelief (“*gila*”) at what they perceive as disrespectful behavior towards high school teachers. The term “*prik total pokoke*” adds a colloquial touch, possibly emphasizing the overall negative impression. The closing apology (“*maafkn ak yh guru*”) indicates a willingness to forgive, despite the frustration expressed earlier.

(5) *“Pernah iri sama yg good looking, tapi sekarang udah ga karena emang **faedahless**”*

The term “*faedahless*”, which seems to be a combination of the Indonesian word “*faedah*” (meaning benefits or advantages) and the English suffix “-less” (indicating without). The user of X/Twitter suggests a personal evolution in perspective. Initially, there was envy or jealousy towards someone attractive, but now, the speaker no longer feels that way because it is deemed without benefits or lacking in utility. This linguistic variation reflects a fusion of languages to convey a nuanced sentiment, blending elements of both Indonesian and English for expression. The use of “*faedahless*” adds a layer of specificity, suggesting a conscious evaluation of the perceived advantages or benefits of attractiveness, contributing to a more nuanced and precise description of the changing attitude.

(6) *“Lu tau kan klo satu instansi isinya kebanyakan mak mak gosip **kerjaless** yang merasa paling senior bakal kayak gimana?”*

In this instance, the speaker blends the Indonesian word “*kerja*” (referring to “work”) with the English suffix “-less”, often used to create adjectives that signify the absence or deficiency of something. In the Indonesian context, the term “*kerjaless*” is a creative way to refer to persons who not only lack employment but also convey a feeling of inactivity or lack of output. Within the tweet's context, the word is used to define persons in an

organization who are viewed as being inactive, perhaps involved in gossip or lacking genuine contributions to their job.

Therefore, those are some examples that portray how a vocabulary can be formed by a combination of Indonesian nouns and the English suffix “-less” and used in the context of communication on X/Twitter.

## 2. The Application of English Suffix “-less” to Indonesian Verb

A verb is generally used to express actions occurrences within a sentence. It functions as the core element in a sentence; conveying the action performed by the subject. The incorporation of the English suffix “-less” into Indonesian verbs shows a significant modification; transforming these verbs into adjectives and altering their meaning. This phenomenon highlights the adaptability of verbs in language evolution and showcases how the addition of a foreign affix can intricately modify and expand the range of meaning of Indonesian verbs.

The use of the suffix “-less” preceded by the category of verbs can be discovered in several Indonesian words such as “*tidurless*”, “*ngantukless*”, “*belajarless*”, and “*nangisless*”. These words are used in various contexts: “*tidurless*” describes the state of someone who does not get enough sleep, “*ngantukless*” characterizes someone who lacks sleepiness, “*belajarless*” portrays someone who has experienced a reduction in the intensity of a habit, and so on.

- (7) *“i terakhir tidur teratur waktu smp, sejak mengenal plestesyen, bioskop trans tv, dan liga inggris sejak itu jd pribadi yg **tidurless**”*

“*Tidurless*” is one of the examples of the use of English affixes combined with Indonesian words. “*Tidurless*” derives from the basic morpheme in the form of the word “*tidur*” combined with the suffix “-less”. The word “*tidur*” is part of the Indonesian vocabulary, which is the equivalent of the English verb “sleep”. The adding of the English suffix “-less” to the word “*tidur*” serves to modify the verb into an adjective. Thus, in terms of meaning, “*tidurless*” is used as an adjective to describe the state of someone who does not get enough sleep. The post above indicates that one’s sleeping habits have been disrupted as a result of the poster starting to do activities that take up his sleep time such as playing playstations, watching movies, and watching soccer leagues. Therefore, the poster used the word “*tidurless*”, also known as sleepless in English, to describe his state.

- (8) *“Gak bisa tidur aku unn jdi **ngantukless**”*

Another example of the use of English affixes combined with Indonesian words can be found in the word “*ngantukless*”. The morphemes that form up the word “*ngantukless*” consist of the word “*ngantuk*” and the suffix “-less”. The word “*ngantuk*” is an unstandardized form of the Indonesian verb “*mengantuk*”, which has the same meaning



with English vocabulary “to feel sleepy”. Considering the function of the suffix “-less” in the word “*ngantuk*” as a verb modifier into an adjective, “*ngantukless*” is used to describe the state of someone who lacks sleepiness. The post above implies that someone has difficulty falling asleep and thus becomes less sleepy.

- (9) “*aku yg kelas 10 ga paham apa2 karna online dan baru naik kelas 11 tp aku **belajarless** soalnya bingung mau ngulang materi dri mana*”

The use of English affixation on Indonesian words can be found in the word “*belajarless*”. Morphologically, the word “*belajarless*” is formed of morphemes in the form of the root word “*belajar*” and the suffix “-less”. The morpheme “*belajar*” is part of the Indonesian vocabulary. In English, the word “*belajar*” has the same meaning as the verb “study”. With the addition of the suffix “-less” to the word “*belajar*”, the verb is modified into an adjective. Thus, the word “*belajarless*” refers to the situation of someone who has little time to do a job or activity, which in this case is studying. The post above implies that a person has little time in learning because the one is getting confused with the learning materials that are disrupted due to the impact of the pandemic that requires students to study online.

- (10) “*doanya 2022 **nangisless** tapi baru bulan ke-3 udah banyak nangisnya*”

“*Nangisless*” is a clear example of the trend of using English affixes on Indonesian words. The units that make up the word “*nangisless*” can be identified through the process of language unit breakdown through the lens of morphology. Therefore, the morpheme in the form of the root word “*nangis*” and the suffix “-less” become the units that form the word “*nangisless*”. In terms of meaning, “*nangis*”, or “*menangis*” in its standardized form, is an Indonesian verb that means “cry” in English. The attachment of the suffix “-less” to the word “*nangis*” modifies the verb into an adjective that describes a person's state. In this case, “*nangisless*” portrays someone who has experienced a reduction in the intensity of a habit. The post above implies that someone wants to be happy and no longer cry a lot in 2022 so she expects herself to become “*nangisless*”.

Therefore, those are some examples that depict how a vocabulary can be formed by a combination of Indonesian verbs and the English suffix “-less” and used in the context of communication on X/Twitter.

### 3. The Application of English Suffix “-less” to Indonesian Adjective

An adjective is a word that describes or defines a noun or noun phrase. It modifies or limits the meaning of nouns and pronouns by naming qualities of all kinds, such as color, size, or opinion. Adjectives can be used to describe the qualities of someone or something independently or in comparison to something else. It can also describe the quantity of nouns. Adjectives can be attributive (occurring before the noun) or predicative (occurring after the noun). Here, the author discovered the use of the suffix “-less” in several

Indonesian adjectives, such as “*laperless*”, “*bahagialess*”, “*cepatless*”, and “*bodohless*”. These adjectives are used in various contexts, such as to indicate an impression of fatigue, express anger, or describe the absence or lack of something.

- (11) “*Gwa skrg **laperless** anjir.... makan cuma buat kebutuhan doang, bukan karna laper*”

The term “*laperless*,” comes from the root word “*laper*”, which is a nonstandard word for the word “*lapar*” (hungry) in Indonesian means the state of feeling like eating. The suffix “-less”. in English is usually used to form adjectives that mean “without” or “not having”. So “*laperless*” can be interpreted as “without hunger” or “not hungry”. The use of the suffix “-less” here gives it a negative feel, changing the meaning of the root word to its opposite. The context or meaning of the post implies that the user is not hungry. The user conveys that the food she/he consumes is only to fulfill her/his physical or nutritional needs, not because of a feeling of hunger.

- (12) “*wajah ku emang gitu pak, layu, kaya ngantuk, **bahagialess**. bukan saya lagi nangis. hft*”

Morphologically, “*bahagialess*” is an example of word formation by adding suffixes to root words that are informal and not included in the standard word category. The word “*bahagialess*” uses the root “*Bahagia*” which means feeling happy and serene. The use of the suffix “-less” in this word indicates a state or condition where someone does not have or is not feeling happy. In the context of the post, there may be elements of joke or irony here, where the user describes her appearance with some descriptive words, such as “*layu*” which can refer to a lack of vigor or a lack of freshness, “*kaya ngantuk*” indicates an impression of fatigue or lethargy, and “*bahagialess*” indicates a lack of happiness, and then inserts a clarification that her face looking “*bahagialess*” is not because she is crying.

- (13) “*Wifinya **cepatless** :(*”

The word “*cepatless*”, comes from the root word “*cepat*” which means in a short period of time. The suffix “-less”, describes the absence or lack of something, in this case, speed. So “*cepatless*” can be defined as something that lacks speed or moves slowly. In this post, the user is complaining or showing dissatisfaction with the performance of the Wi-Fi connection. This post shows that the Wi-Fi connection is slow or lacks sufficient speed. Here, the word “*cepatless*” is used to convey the impression that the Wi-Fi connection is unsatisfactory in terms of speed.

- (14) “*Capek bgt aku sama grup **bodohless**. Mending reboisasi uname.*”

The word “*bodohless*” is a creative word that is not common in everyday Indonesian usage. It uses the root word “*bodoh*” which in Indonesian means not having knowledge or not being smart. The use of the suffix “-less” in this word gives a positive or contrasting nuance, eliminating the negative meaning that may be contained in the base word. The meaning of “*bodohless*” can be interpreted as something or someone who does not have a



stupid nature. The phrase “*Mending reboisasi* uname” represents a shift in the user’s focus or a change in topic. The term “*reboisasi*” refers to reforestation, indicating an inclination towards a more productive or meaningful activity. However, in this context, “*reboisasi* uname” appears to suggest a preference for changing one’s username as a metaphorical action, signifying a move away from engaging with what the user perceives as ‘stupid’ people in a group. This part of the post conveys the user’s desire to dissociate from unproductive or frustrating interactions and instead focus on actions that are seen as more constructive or sensible, even if symbolic in nature like changing a username.

Therefore, those are some examples that represent how a vocabulary can be formed by a combination of Indonesian adjectives and the English suffix “-less” and used in the context of communication on X/Twitter.

## Conclusion

In conclusion, there are some Indonesian user that regularly combine English affixes with Indonesian vocabulary, such as by blend the suffix “-less” into Indonesian language particularly those words that are often used by us in the daily life. This language phenomenon can be easily found on social networking platforms like as X and Twitter that allow users express themselves using tweets. The presence of these kind of social media uncounsciously contributes to the creation of the new word in which language barriers are less noticeable. Users are able to interact with language in a manner that is both very dynamic and incredibly original thanks to this platform. Without being limited by language barriers, users are able to freely express their ideas, share their own thoughts, and participate in a wide variety of linguistic discoveries on their own. Through examination the frequently used term that combines with the suffix “less” found in X/Twitter, the authors find an interesting variety of words classified as nouns, verbs, and adjectives that applied the suffix “less” in various contexts. Within the category of nouns, we encounter words such as “*akhlakless*” (lacking morals), “*otakless*” (devoid of intelligence), “*bebanless*” (free from load), “*adabless*” (devoid of benefit), “*faedahless*” (without advantage), and “*kerjaless*” (without effort). The domain of verbs presents fascinating formations as “*tidurless*” (without sleep), “*ngantukless*” (without tiredness), “*belajarless*” (without studying), and “*nangisless*” (without sobbing). Furthermore, the inclusion of adjectives such as “*laperless*” (meaning lacking hunger), “*bahagialess*” (referring to the absence of enjoyment), “*cepatless*” (indicating the lack of speed), and “*bodohless*” (meaning without stupidity) adds to the grammatical complexity. The examples provided before are clear that language is always changing. The change of the usage of language shows how flexible and adaptable language is, especially the rise of social media that help this distribution of language creation. The way that English and Indonesian parts of words being blended together is interesting and shows how languages change. This developing new language, modifying the meanings of words that

already exist, and devising creative means of communication in response to the rapidly evolving digital environment.

## References

- Abrar, M. (2018). "If our English isn't a language, what is it?" Indonesian EFL Student Teachers' Challenges Speaking English. *Qualitative Report*, 23(1), 129–145.
- Bauer, L. (2020). English morphology for the language teaching profession. *English Morphology for the Language Teaching Profession*, 1–190. <https://doi.org/10.4324/9780367855222>
- Berry, V. (2019). What does language assessment literacy mean to teachers? *ELT Journal*, 73(2), 113–123. <https://doi.org/10.1093/elt/ccy055>
- Bjerva, J. (2019). What do language representations really represent? *Computational Linguistics*, 45(2), 381–389. <https://doi.org/10.1162/COLIA00351>
- Blevins, T. (2020). Better character language modeling through morphology. *ACL 2019 - 57th Annual Meeting of the Association for Computational Linguistics, Proceedings of the Conference*, 1606–1613.
- Coombe, C. (2020). Language assessment literacy: what do we need to learn, unlearn, and relearn? *Language Testing in Asia*, 10(1). <https://doi.org/10.1186/s40468-020-00101-6>
- Coughlin, C. E. (2019). Sensitivity to Inflectional Morphology in a Non-native Language: Evidence from ERPs. *Frontiers in Communication*, 4. <https://doi.org/10.3389/fcomm.2019.00021>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage Publications, Inc.
- Declerck, M. (2020). What about proactive language control? *Psychonomic Bulletin and Review*, 27(1), 24–35. <https://doi.org/10.3758/s13423-019-01654-1>
- Engelmann, F. (2019). How the input shapes the acquisition of verb morphology: Elicited production and computational modelling in two highly inflected languages. *Cognitive Psychology*, 110, 30–69. <https://doi.org/10.1016/j.cogpsych.2019.02.001>
- Fishman, J. A. (1972). *Language in Sociocultural Change*. Stanford University Press.
- Gorys, K. (1997). *Komposisi: Sebuah Pengantar Kemahiran Bahasa*. Ende-Flores: Nusa Indah.
- Granlund, S. (2019). Language-general and language-specific phenomena in the acquisition of inflectional noun morphology: A cross-linguistic elicited-production study of

- Polish, Finnish and Estonian. *Journal of Memory and Language*, 107, 169–194. <https://doi.org/10.1016/j.jml.2019.04.004>
- Holmes, J. (2001). *An introduction to sociolinguistics* (2nd ed.). Longman.
- Jawahar, G. (2020). What does BERT learn about the structure of language? *ACL 2019 - 57th Annual Meeting of the Association for Computational Linguistics, Proceedings of the Conference*, 3651–3657.
- Jiang, Z. (2020). How can we know what language models know? *Transactions of the Association for Computational Linguistics*, 8, 423–438. [https://doi.org/10.1162/tacl\\_a\\_00324](https://doi.org/10.1162/tacl_a_00324)
- Jianwei, Y. (2021). Morphology and word order in slavic languages: Insights from annotated corpora. *Voprosy Jazykoznanija*, 2021(4), 131–159. <https://doi.org/10.31857/0373-658X.2021.4.131-159>
- Khotimah, K. (2012). *Analysis of Indonesian Affixes in English Words Found in Mobile Guide Edition: 54-59*. Diponegoro University.
- Lieber, R. (2009). *Introducing Morphology*. New York: Cambridge University Press.
- Little, S. (2020). Whose heritage? What inheritance?: conceptualising family language identities. *International Journal of Bilingual Education and Bilingualism*, 23(2), 198–212. <https://doi.org/10.1080/13670050.2017.1348463>
- Ly, A. (2018). What drives foreign direct investment: The role of language, geographical distance, information flows and technological similarity. *Journal of Business Research*, 88, 111–122. <https://doi.org/10.1016/j.jbusres.2018.03.007>
- McKay, S. L. (2018). English As an International Language: What It Is and What It Means For Pedagogy. *RELJ Journal*, 49(1), 9–23. <https://doi.org/10.1177/0033688217738817>
- O'Grady, W., & Archibald, J. (2016). *Contemporary Linguistic Analysis: An Introduction*, 8th edition. Pearson Canada.
- Özateş, Ş. B. (2018). A Morphology-based Representation Model for LSTM-based Dependency Parsing of Agglutinative Languages. *CoNLL 2018 - SIGNLL Conference on Computational Natural Language Learning, Proceedings of the CoNLL 2018 Shared Task: Multilingual Parsing from Raw Text to Universal Dependencies*, 238–247. <https://doi.org/10.18653/v1/K18-2024>
- Pangrazio, L. (2020). What is digital literacy? A comparative review of publications across three language contexts. *E-Learning and Digital Media*, 17(6), 442–459. <https://doi.org/10.1177/2042753020946291>

- Pasa, T. A., & Mahyuni. (2023). Language Variations: A New Trend of Language Use Among Teenagers in Social Media. *Proceedings of the 3rd Annual Conference of Education and Social Sciences (ACCESS 2021)*, 176–183. <https://doi.org/10.2991/978-2-494069-21-3>
- Rasika, D. J. (2022). Indonesian Affixation Attached to English Words in Adolescent Tabloid. *Journal of Research on Language Education*, 3(1), 28. <https://doi.org/10.33365/jorle.v3i1.1509>
- Semushina, N. (2019). Numeral incorporation in Russian sign language: Phonological constraints on simultaneous morphology. *Sign Language Studies*, 20(1), 83–131. <https://doi.org/10.1353/sls.2019.0015>
- Treffers-Daller, J. (2019). What Defines Language Dominance in Bilinguals? *Annual Review of Linguistics*, 5, 375–393. <https://doi.org/10.1146/annurev-linguistics-011817-045554>
- Woodward, M. (2023, September 20). Twitter User Statistics 2023: What Happened After “X” Rebranding? SearchLogistics. Retrieved October 17, 2023, from <https://www.searchlogistics.com/learn/statistics/twitter-user-statistics/>
- Zawiszewski, A. (2020). Bilinguals processing noun morphology: Evidence for the Language Distance Hypothesis from event-related potentials. *Journal of Neurolinguistics*, 55. <https://doi.org/10.1016/j.jneuroling.2020.100908>
- Zmigrod, R. (2020). Counterfactual data augmentation for mitigating gender stereotypes in languages with rich morphology. *ACL 2019 - 57th Annual Meeting of the Association for Computational Linguistics, Proceedings of the Conference*, 1651–1661.