

Verb Forms and Transitivity in Indonesian and English Online Recipe Discourse: A Corpus Linguistic Study

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Abstract

This study examines verb forms and grammatical and semantic transitivity in Indonesian and English cooking recipe discourse through a comparative corpus linguistic approach. The study uses a balanced corpus of 500 cooking recipes, comprising 250 Indonesian recipes from *Dapur Umami* and 250 English recipes from Jamie Oliver. The analysis focuses on the morphological forms of verbs, their grammatical and semantic transitivity, argument realization, and their functions in organizing procedural actions. The recipe texts were collected between 25 July 2025 and March 2026, converted into plain text format, and processed using AntConc. Verb occurrences were identified through Keyword in Context (KWIC) concordance searches, manually verified, and classified according to morphological form, grammatical transitivity, and semantic function. Frequency counts and percentage distributions were calculated to facilitate cross-linguistic comparison, while concordance lines were qualitatively interpreted within their procedural contexts. The findings indicate that Indonesian and English recipes share the same procedural communicative purpose but employ different linguistic resources to encode cooking actions. Indonesian recipes show extensive use of derivational morphology, including affixation and reduplication, while English recipes predominantly use base-form verbs in imperative constructions as well as inflectional forms such as present and past participles. In terms of transitivity, both corpora contain transitive and intransitive constructions, but their realization differs in relation to verb morphology, argument structure, and syntactic resources used to organize procedural actions, participants, and resulting states.

Keywords: Verb forms; Recipe discourse; Cooking recipe; Transitivity; Semantic; Corpus linguistics

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INTRODUCTION

Cooking recipe constitute a type of procedural discourse whose primary communicative purpose is to instruct readers to perform a sequence of action in order to produce a desired culinary outcome. Unlike narrative or descriptive texts, recipe discourse is organized through ordered procedural steps that guide readers from ingredient preparation to the final product. Harimurti (1978:36) states that the complete linguistic unit is not the word or the sentence, but rather discourse. As the highest unit in the grammatical hierarchy, discourse consists of interconnected linguistic elements that collectively convey a unified meaning. Within this framework, instructional discourse recipes rely on linguistic choices that clearly communicate actions, their sequence, and the expected results of each step. Among these linguistic features, verbs play a central role because they encode procedural sequences, specify the participants involved in each action, and represent changes of state throughout the cooking process. Consequently, the linguistic analysis of verbs provides valuable insight into how procedural meanings are constructed and interpreted across language.

Recipes discourse also reflects the grammatical organization of procedural actions. Each instruction is typically realized through a predicate centered on a verb, which determines the number and type of participants required in a clause and establishes the argument structure of the event (Dixon, 2010). Through this organization, verbs not only describe actions but also indicate whether an action affects an object or occurs without one, making transitivity organize sequences of actions that occur in a particular order to achieve specific culinary outcomes, allowing readers to follow instructions accurately and efficiently. Although cooking recipes across language share the same procedural function, their linguistic realization differs according to the grammatical systems of each language. These differences influence how actions, participants, and changes of state are encoded in recipe discourse and may lead to variations in the realization of transitive and intransitive constructions. From a grammatical perspective, transitivity concerns the syntactic relationship between a verb and its arguments, whereas semantic transitivity refers to the extent to which an action affects its participants and brings about a change of state such as cross-linguistic variation highlights the importance of examining verb forms and transitivity patterns in bilingual recipe corpora to better understand how equivalent procedural meanings are expressed through different linguistic systems.

The effectiveness of this procedural discourse depends largely on how actions are linguistically represented, making verbs the central grammatical element in recipe construction. In recipe discourse, verbs function as the core of each instruction by expressing the actions required to transform ingredients into a final culinary product. They organize procedural sequences, specify the participants involved in each action, and represent changes of state throughout the cooking process. As the predicate of a clause, a verb determines the number and type of arguments required to complete the event structure, a verb determines the number and type of arguments required to complete the event structure, thereby shaping the grammatical organization of each procedural step (Dixon, 2010). This grammatical role enables recipes to present instructions in a clear, logical, and sequential manner, allowing readers to accurately interpret and perform each action. Consequently, the linguistic analysis of verbs provides an essential foundation for understanding how procedural meanings are constructed and how transitivity patterns are realized across languages.

Building on the central role of verbs in procedural discourse, transitivity provides an essential framework for explaining how procedural actions are grammatically and semantically organized in cooking recipes. From a grammatical perspective, transitivity concerns the syntactic relationship between a verb and its arguments, particularly whether a verb requires an object to complete its meaning. Since the verb functions as the predicate of a clause, it determines the number and type of participants involved in the event and organizes the argument structure of each procedural step (Dixon, 2010). In recipe discourse, this grammatical organization enables instructions to present actions in a coherent sequence, ensuring that readers can accurately interpret and perform each stage of the cooking process. From a semantic perspective, transitivity extends beyond syntactic structure by describing how an action affects its participants and the degree to which a change of state is transferred to an entity. In cooking recipes, verbs typically express actions that transform ingredients into a final culinary product through a sequence of interconnected events. The interaction between grammatical structure and semantic interpretation therefore plays a crucial role in representing procedural meaning. Examining both grammatical and semantic transitivity provides a comprehensive basis for analyzing how recipe discourse encodes actions, participants, and event structures, as well as how these patterns vary across languages.

Although grammatical and semantic transitivity are universal linguistic concepts, their realization differs substantially between Indonesian and English because each

language employs distinct grammatical resources to encode procedural actions. In Indonesian cooking recipes, transitivity is primarily expressed through derivational morphology, particularly affixation and reduplication. Affixes such as *me-* commonly derive transitive verbs, for example: *mengaduk* to *stir*, whereas *ber-* typically marks intransitive actions, for example: *berubah* to *change*. Indonesian language also employs reduplication to express iterative or repetitive procedural action, as illustrated by forms such as *tusuk-tusuk* and *bolak-*, which contribute to the semantic interpretation of cooking instructions. These morphological processes play an important role in determining verb valency and the relationship between verbs and their participants.

English, in contrast, relies less on derivational morphology and more on syntactic organization to express transitivity. Verb meaning and argument structure are primarily determined through relatively stable verb forms, constituent order, and the presence or absence of objects. Hopper and Thompson (1980), further argue that transitivity should be viewed as a semantic continuum parameters that distinguish events with higher and lower degree of transitivity. Consequently, English recipe discourse tends to encode procedural actions through syntactic patterns and argument structure, whereas Indonesian more frequently utilizes morphological processes to signal transitivity. These typological differences provide a strong basis for comparing how equivalent procedural meanings are realized in Indonesian and English cooking recipe corpora.

Previous studies have examined cooking recipe discourse from various linguistic perspectives, including analyses of Indonesian recipe discourse (Mustikasari, Pratiwi, & Ginanjar, 2022) and English recipe texts (Hunter, 2020). Other researchers have explored recipes as procedural discourse, focusing on their textual organization and instructional function (Mori Shinsuke et al., 2020; Febriana et al., 2025). Syntactic characteristics of procedural texts have also been examined by (Ekasani 2020; Sugiharti 2021; Dizon & Villanueva 2022). Beyond linguistic structure, recipe discourse has been investigated from comparative and cultural perspective, including cross-cultural analyses of recipe language (Twomey et al., 2020) and studies of recipes as representations of culinary identity and cultural heritage (Berrebbah 2020; Partarakis et al., 2021). Collectively these studies demonstrate that cooking recipes have attracted considerable scholarly attention from verbs, syntactic, comparative, and cultural perspective. Despite these contributions, relatively little attention has been given to the systematic comparison of Indonesian and English cooking recipes from a corpus-linguistic perspective.

The existing studies have generally examined verb use, procedural discourse, or syntactic structure independently, with limited integration of verb forms and grammatical and semantic transitivity within a bilingual analytical framework. Despite these contributions, relatively little attention has been given to a systematic corpus-based comparison of Indonesian and English cooking recipes discourse. Existing studies have generally examined verb forms, morphology, and grammatical, and semantic transitivity within a bilingual analytical framework. Consequently, cross-linguistic differences in the linguistic realization of procedural actions remain insufficiently explored. To address this gap, the present study adopts a corpus-based comparative approach to examine verb forms together with grammatical and semantic transitivity analysis within balanced bilingual corpora, this study provides a more comprehensive account of how procedural meanings are linguistically realized across the two languages.

This study investigates the forms and transitivity of discourse cooking recipes text in Indonesian and English languages. To guide the analysis, the following research questions are formulated:

RQ1: What verb forms and transitivity patterns occur in Indonesian and English cooking recipe corpora?

RQ2: How do the frequencies and discourse function of these verb forms and semantic transitivity patterns compare across the Indonesian and English coking recipe corpora?

RESEARCH METHOD

Research Design

This study employs a comparative corpus linguistic design that combines quantitative corpus analysis with qualitative linguistic interpretation. Quantitative analysis is used to identify the frequency, distribution, and percentage of verb forms and transitivity patterns in Indonesian and English cooking recipe corpora, while qualitative analysis is employed to interpret concordance lines and explain the grammatical and semantic functions of verbs within their procedural contexts. This integrated approach enables systematic cross-language comparison while preserving the textual interpretation of recipe discourse.

Data and Sampling

The corpus consist of 500 cooking recipes, comprising 250 Indonesian recipes collected from *the Dapur Umami* website and 250 English recipes collected from *the Jamie Oliver* website. The two corpora were selected using purposive sampling to ensure comparability in communicative prupose, genre, and procedural structure. Only complete recipes containing ingredients and step-by-step cooking osntructions were included, while duplicate recipes, advertisements, promotional materials, and incomplete texts were excluded.

Data Collection

The recipe texts were collected between 25 July 2025 and 25 September 2025 and converted into plain text format. During corpus preparation, duplicated entries, website navigation menus, images, hyperlinks, advertisements, and other non-linguistic elements were removed to ensure that only procedural recipe texts remained for analysis. The cleaned corpora were imported into *AntConc* for corpus processing. Verb occurrences were identified through concordance searches using *the Keyword in Context* (KWIC) function. The extracted verbs were then manually verified and classified according to their morphological forms and grammatical and semantic transitivity. Frequency counts and percetage distributions were subsequently calculated to facilitate comparisons between the Indonesian and English corpora.

Data Analysis

The data were analyzed through six sequential procedures. *First*, the cleaned Indonesian and English recipe corpora were imported into *AntConc* for corpus processing. *Second*, verb occurences were identified using *the Keywordin Context* (KWIC) corcodance fuction and manually verified to ensure their accuracy within the procedural contexts of the recipes. *Third*, the identified verbs were lemmatized and classified according to their morphological forms and grammatical and semantic transitivity based on the analytical framework adopted in this study. *Fourth*, frequency counts and percentage distributions where calculated to determine the occurrence of each verb category in the two corpora. *Fifth*, corcondance lines were qualitatively examined to interpret the grammatical and semantic functions of verbs within the procedural discourse of cooking recipes. Finally, the findings from the Indonesian and English corpora were systematically compared to identify similarities and differencies in verb forms, transitivity patterns, and their discourse functions across the two languages.

RESULTS AND DISCUSSION

Results

Based on the analysis, this research found at least 7.368 verbs frequency. Its uniqueness of morphology lies in the flexibility of enrichment in the vocabulary of textual forms. Based on verbs that form both Indonesian and English languages, the aspectual characteristics of verbs used in cooking recipe discourse, showing how verbal choices represent the sequence, duration, and completion of culinary actions. In recipe texts, verbs predominantly function as procedural markers that organize cooking activities into ordered stages, such as preparing ingredients, processing materials, cooking, and serving. The aspect of verbs reflects the temporal structure of the cooking process, where action verbs commonly express dynamic and sequential activities, including preparation (cut, chop, mix, add), transformation (cook, boil, fry, bake), and completion (serve, garnish, finish). The dominance of perfective or completed-action aspects indicates that recipe discourse emphasizes clear procedural outcomes, guiding readers toward achieving a specific final product. Meanwhile, imperfective aspects may appear to describe ongoing processes, such as stirring, heating, or simmering, where the duration and continuity of an action are important for successful preparation. Thus, the figure demonstrates that verb aspect in cooking recipes is not merely a grammatical feature but also a discourse strategy that constructs procedural meaning, regulates the order of actions, and enables readers to reproduce the intended cooking process accurately.

Verb Forms in Indonesian and English

Table 1. Verbs Form in Indonesian and English
Verb Forms in Discourse Cooking Recipe

No.	Indonesian Language	Gloss	Example	English Language	Example
1.	<i>Verba Dasar</i>	Base Form	<i>Aduk</i> (stir)	Base Form	Boil
2.	<i>Verba Berafiks</i>	Affix Verb	<i>Menggoreng</i> (frying)	Imperative	Cook
3.	<i>Verba Reduplikasi</i>	Reduplication Verb	<i>Tusuk-tusuk</i> (skewers)	-Ing form	Frying
4.	<i>Verba Majemuk</i>	Compound Verb	<i>Aduk rata</i> (stir well)	Verb Phrase	Stir Well

Based on table 1 above, it can be ascertained that verbs in Indonesian have various forms, the basic verb is emphasized in the word (1) *aduk*, then the affixed verb is emphasized in the word in (2) *menggoreng*, with the affix *me-* as a marker of the verb in progress, there is also a reduplication verb with the type of verb that is repeated to emphasize the sentence in an imperative manner such as in the word (3) *tusuk-tusuk*. Furthermore, compound verbs that have more than one morpheme to indicate that the verb has more than two verbs, for example in the word *aduk rata*. On the other hand, in English, there are elements of formation in the verb pattern that appear as in example (1) *boil*, which is the basic form and shows the first form of the verb. Then, there is a type of imperative verb in number (2) *cook* which shows the basic word that requires an object after it, usually showing that sentences in cooking recipes often appear imperative. Furthermore, in example (3) *frying*, is a verb type -ing form which shows the activity or process of cooking is happening. Finally, there are phrasal verbs, which refer to two verbs simultaneously but have only one meaning. This contrasts with Indonesian, which has compound verbs that cannot be described with a single meaning. This demonstrates the presence of verb activity in the discourse-forming patterns of Indonesian and English recipes, with their presence in the discourse of recipes being a priority in the discourse, and the verb activity in both languages being variable.

Grammatical and Semantic Transitivity

The research data presents the distribution of transitive and intransitive verbs in the Indonesian and English recipe corpora. Transitive verbs account for 70% of the Indonesian corpus and 56% of the English corpus, whereas intransitive verbs represent 30% and 44%, respectively. These findings indicate that transitive constructions are the predominant grammatical pattern in both corpora, although they occur. The findings showed that Indonesian was tagged with a deep blue color, while English was tagged with a sky blue color, contrasting both. Intransitive verbs were found to reflect a total of 70% in Indonesian, while English showed a total of 56%. Transitive verbs were found to reflect a further 31%, while English showed 41%. This shows that the differences in transitivity in Indonesian are dominated by transitive verbs compared to intransitive verbs. English, on the other hand, relies on the adverb that follows the sentence, which can result in both transitive and transitive passive verbs. shows that transitive verbs occur more frequently than intransitive verbs in both corpora, although their proportions differ across languages. This distribution reflects the procedural nature of recipe discourse, in which most instructions describe actions that intentionally affect ingredients to produce a desired culinary outcome. Because recipe instructions typically involve manipulating objects, transitive constructions constitute the dominant grammatical pattern in both Indonesian and English.

Indonesian Transitive Verbs

This section discusses transitive verbs that appear in Indonesian recipes. Transitive verbs are characterized by affixes such as *meN-*, *meN-*, *meN-i*, or prefixes with combinations of *-kan* and *-i*, which allow for a change in form from passive to active. Table 2 below shows the types of transitive verbs in Indonesian recipe discourse.

Table 2. Indonesian Transitive Verbs
Indonesian Transitive Forms

No.	Sentences	Verb	Transitivity Type	Transitive elements	Category	Explanation
1.	<i>masukkan bawang putih yang sudah dihaluskan</i> (add the crushed garlic)	<i>masukkan</i> (put)	<i>ekatransitif</i>	suffix <i>-kan</i>	verb	It contains causes something to come in
2.	<i>tambahkan air dan bumbu</i> (add the water and flavor)	<i>tambahkan</i> (add)	<i>ekatransitif</i>	suffix <i>-kan</i>	verb	It contains causes something to increase
3.	<i>panaskan minyak goreng</i> (heat the cooking oil)	<i>panaskan</i> (heat)	<i>ekatransitif</i>	suffix <i>-kan</i>	verb	It contains causes temperature to rise

Based on table 2 above, transitive verbs have constituent elements in the form of components that are formed in the sentences listed. The predominance of the suffix *-kan* reflects the procedural nature of cooking recipes, in which instruction typically describe actions that intentionally affect ingredients and produce observable changes of state. Because recipe discourse aims to guide readers through sequential sequential culinary actions, verbs derived with *-kan* are highly productive in encoding transitive events involving an affected object. The greater use of affixation in Indonesia corpus reflects typological differences between the two languages. Indonesian relies extensively on derivational morphology to encode grammatical relations and verb valency, whereas

English primarily expresses transitivity through relatively stable verb forms and syntactic organization. Consequently Indonesian procedural discourse frequently employs affixed verbs such as *masukkan*, *tambahkan*, dan *panaskan*, while English recipes typically use uninflected imperative verbs such as *add*, *heat*, and *put*. From a morphological perspective, the suffix *-kan* functions as a derivational marker that increases verb valency by deriving transitive verbs from base forms. This derivational process enables procedural instructions to encode actions that directly affect ingredients, thereby supporting the realization of grammatical transitivity in Indonesian recipe discourse. In addition, these findings are consistent with Ramlan's description of Indonesian derivational morphology, in which affixation plays a central role in verb formation. They also support Dixon's view that verbs determine argument structure and align with Hopper and Thompson's transitivity framework, since the dominant *-kan* verbs typically encode highly transitive events involving an affected object and a clear change of state. Furthermore, Table 3 shows examples of English transitive verbs.

English Transitive Verbs

Transitive verbs express the proportion of verbs within a transitivity parameter. Transitive sentences typically require an object, with the subject placed before the verb. Table 3 shows the presence of transitive verbs in English cooking recipe discourse.

Table 3. English Transitivity Verbs

English Transitive elements						
No.	Sentences	Verb	Structure	Tenses	Category	Explanation
1.	Add the softened butter to the mix	add	V1+ Obj + prepositiona l phrase	present tense	base verb	contains a verb (add) and is followed by an object description (softened butter), there is also a prepositional phrase description following it explicitly
2.	Heat the oil and butter in a pan	heat	V1+ Obj + prepositiona l phrase	present tense	base verb	contains a verb (heat) and is followed by an object description (the oil), there is also a prepositional phrase description following it explicitly
3.	Cook the pasta in a pan of salted boiling water	cook	V1+ Obj + prepositiona l phrase	present tense	base verb	contains a verb (cook) and is followed by an object description (the pasta) and there is also a prepositional phrase description following it explicitly

Based on table 3 above, it shows that transitive sentences in English cooking recipes involve the need for the patient as a participant who is affected by the action. In example (1) *Add the softened butter to the mix*, containing the verb *add* and followed by the object *softened butter*, there is a prepositional phrase following it explicitly to the mix. Then in example (2) *Heat the oil and butter in a pan*, containing the verb *heat* and followed by the object *the oil*, there is a prepositional phrase following it explicitly in a pan. Finally, example (3) *Cook the pasta in a pan of salted boiling water*, containing the verb *cook* and followed by the object *the pasta*, there is a prepositional phrase following it explicitly in a pan of salted boiling water. This shows that in English cooking recipes, base verbs

are used for transitive sentences in order to know in general the important sentence structure of the object as a complement.

Indonesian Intransitive Verb

Intransitive verbs are verbs formed by the affixes *di-*, *men-*, and so on. Intransitive verbs do not require an object in the sentence and do not include an actor as a movement or action in carrying out an action. For example, table 4 below explains the types of intransitive verbs in Indonesian cooking recipe discourse.

Table 4. Indonesian Intransitive Verbs

Indonesian Intransitive Forms					
No.	Sentences	Structure	Type	Transitive Elements	Explanation
1.	jamur enoki kuah pedas siap disajikan	O + V + S	completed	Confix <i>-di-</i> and <i>-kan</i>	contains the confix components <i>-di-</i> and <i>-kan</i> (presented) complete with an object description at the beginning of the sentence
2.	Tuang air, biarkan mendidih	O + V + S	uncompleted	Suffix <i>-me</i>	contains the suffix component <i>-me</i> (boiling) with an adverb without a complement
3.	masak hingga bumbu meresap	O + V + S	completed	Suffix <i>-me</i>	contains the suffix component <i>me-</i> (presented) complete with an object description at the beginning of the sentence

Based on table 4 above, it is known that the elements forming intransitive verbs need to be seen in example (1) *jamur enoki kuah pedas siap disajikan*, has an explanation that this sentence contains an intransitive verb in the word served which has the confixes *di-* and *-kan* which indicate the final state or result. Then in example (2) *Tuang air, biarkan mendidih*, in this sentence contains an intransitive verb in the word boil which has the suffix *-me* (*mendidih*) with an adverb without a complement and does not require an object that states a condition. Then in example (3) *masak hingga bumbu meresap*, in this sentence contains an intransitive verb in the word seep as the focus in the sentence which has the suffix *me-* (*meresap*) complemented by an object adverb at the beginning of the sentence.

English Intransitive Verbs

Table 5. English Intransitive Forms

English Transitive Forms				
No.	Sentences	Structure	Verb	Explanation
1.	the stock will reduce and the potatoes will start to break down	S + V 1 (to be) + infinitive + S + V1 (to be) + infinitive	cooked through	contains nouns namely (the stock) and (the potatoes) as subjects and followed by verbs (will reduce) and (will start) without being followed by objects
2.	the bake rolls	S + V1	heat	contains a noun (bake) as the subject and is followed by a verb (rolls) and is not followed by an object
3.	The cheese melt	S + V3	melt	contains the noun (cheese) as the subject and is followed by the verb (melt) and is not followed by the object

Based on Table 5 above, it can be seen that intransitive verbs are prototypically used with intransitive auxiliary verbs. However, these verbs can be used with transitive

auxiliary verbs, which then have a causative effect. It can be seen in example (1) *the stock will reduce and the potatoes will start to break down*, containing the nouns the stock and the potatoes as subjects and followed by verbs in future tenses namely; will reduce and will start without being followed by an object. Then, in example (2) *the bake rolls*, containing the noun bake as the subject and followed by the verb form 1 rolls and without being followed by an object because it is intransitive. Finally, in example (3) *the cheese melt*, containing the noun cheese as the subject and followed by the verb form 3 melt and without being followed by an object because it is intransitive. This shows that there is a significant subject in the intransitive structure which is important to include and is said to be an intransitive sentence.

Cross-linguistic Comparison

Typology (Indonesia)

In this study, the use of morphemes in cooking recipe verbs encompasses both monomorphemic and polymorphemic verbs. Monomorphemic verbs are base verbs, whereas polymorphemic verbs consist of combinations of multiple morphemes. Polymorphemic verbs are formed through several morphological processes: affixation, reduplication, and compounding.

Derivational morphology

Morphologically, Indonesian cooking recipe discourse is characterized by the derivation of polymorphemic verbs through the omission of the *me(N)-* prefix applied to verbs that could grammatically appear in affixed forms (such as *garami*, *tuangi*, and *potonglah*) resulting in the base form being used more productively in imperative sentences.

Passive

In addition to imperative constructions, verbs also appear in active and passive constructions, which are distinguished by the placement of core arguments without altering the verb's basic meaning. In active constructions, the subject functions as the agent performing an action upon the object, whereas in passive constructions, the subject functions as the patient or recipient of the action, while the agent may be either explicitly stated or omitted. The *di-i* confix consists of the bound morpheme *di-i* with a free morpheme positioned between its parts. Table 6 below details data regarding the *di-i* confix and its formation process within verbs found in Indonesian cooking recipe texts.

The findings showed that the most dominant verb featuring the *di-i* circumfix is (1) *dialasi*, with a frequency of seven occurrences. This verb is formed by combining the *di-i* circumfix a bound morpheme with the free morpheme *alas*. Next, the verb (2) *diolesi* appears three times and is formed by the *di-i* circumfix attached to the free morpheme *oles*. Meanwhile, the verb (3) *dibaluri* has the lowest frequency appearing only once and results from combining the *di-i* circumfix with the free morpheme *balur*. These data indicate that, within the discourse of Indonesian cooking recipes, the *di-i* circumfix can form passive verbs derived from base words. The use of this circumfix generally marks an action performed upon a specific object or target, thereby demonstrating a close relationship between the action and the element undergoing that action.

Reduplication

This section discusses verb reduplication as a morphological process in verb formation within Indonesian cooking recipes. Reduplication is achieved by repeating the base form, resulting in verbs that serve specific grammatical functions within sentences. The distribution of the types of verb reduplication found in the research data is presented in Table 6.

Table 6. Distribution of Reduplication Types in Indonesian Cooking Recipe Discourse

No.	The Type of Reduplication	Total	Percentage
1.	<i>Reduplikasi Penuh</i>	54	60,42%
2.	<i>Reduplikasi Salin Suara</i>	11	22,92%
3.	<i>Reduplikasi Berafiks</i>	8	16,67%
Total		73	100%

Based on Table 6, full reduplication accounts for 54 instances (60.42%), while sound-copying reduplication accounts for 11 instances (22.92%). Meanwhile, *penuh* reduplication accounts for 8 instances (16.67%), representing the lowest percentage. The findings indicate that full reduplication is the most dominant type compared to sound-copying reduplication, while affixal reduplication appears the least frequently; collectively, these three types constitute 100% of the reduplication patterns observed in the verbs used within Indonesian cooking recipe discourse.

English

Imperatives

In English cooking recipe discourse, imperative sentences can be formed in several ways: using the bare infinitive (infinitive without "to"), employing a negative form with "do not" followed by the infinitive and a complement, placing "do" at the beginning of the sentence, or using a question tag. Syntactically, imperative sentences express an action directed from a subject toward an object. Imperative verbs play a crucial role in cooking recipe discourse by ensuring that the cooking instructions are clear. Table 8 below presents data on imperative verbs found in English cooking recipe discourse.

Table 7. Imperative Verbs in English Cooking Recipe Discourse

No.	Sentence	Verbs	Structure	Explanation
1.	pour in the cold soda water (<i>Tuangkan air soda dingin</i>)	pour (<i>tuang</i>)	(S) + V1 + Prepositional Verb	contains the base-form verb <i>pour</i> marking the imperative followed by a prepositional phrase
2.	slice the tomato into rounds (<i>iris tomat menjadi bentuk bulat</i>)	slice (<i>iris</i>)	(S) + V1 + Prepositional Verb	contains the first form of the verb (slice) as an imperative marker and is followed by an object (tomato)
3.	turn off the oven but leave the potatoes in there (<i>matikan oven tetapi biarkan kentang tetap di dalamnya</i>)	turn (<i>balik</i>)	(S) + V1 + Prepositional Verb	contains the base form of the verb (turn) as an imperative marker, followed by the object (the potatoes)

Based on Table 7, there are examples of imperative sentences in English cooking recipe discourse. In example (1), *pour in the cold soda water*, the base verb *pour* functions as the imperative marker and is followed by the prepositional phrase *in the cold soda water*. In example (2), *slice the tomato into rounds*, the base verb *slice* functions as the imperative marker and is followed by the object *tomato*, which describes the imperative action. In example (3), *turn off the oven but leave the potatoes in there*, the base verb *turn* functions as the imperative marker and is followed by the object *the potatoes*.

Participles

English recipe discourse frequently employs participial forms to represent ongoing actions, completed processes, and the resulting state of ingredients. Present participles ending in *-ing* such as *adding*, *frying*, and *baking* appear in aspectual or participial

constructions during the cooking process. English verb forms associated with the past participle (often referred to as the third verb form) are used in the passive voice and perfect tenses; their usage requires the base form alongside an auxiliary verb such as *have* or *be* to support the sentence structure. The structural formation of the past participle is illustrated in Table 8 below.

Table 8. Present Participle Verb Forms (-ing form) in English Cooking Recipe Discourse

No.	Sentences	Verbs	Structure	Explanation
1.	boiling salted water for 15 minutes until or until very tender (<i>rebus dalam air garam selama 15 menit hingga sangat empuk</i>)	Boiling (<i>merebus</i>)	(S) + participle clause (boiling) +adv of time	It implicitly contains the subject via the present participle (boiling) and is followed by a time expression (15 minutes); it also has an object that follows it explicitly.
2.	adding the broccoli florets for the final 2 minutes (<i>tambahkan kuntum brokoli pada 2 menit terakhir</i>)	Adding (<i>menambahkan</i>)	(S) + Participle clause (adding) +adv of time	It implicitly contains the subject via the present participle (adding) and is followed by a time expression (2 minutes); it also has an object that follows it explicitly.
3.	roasting veg in a tray with the whole unpeeled bulb (<i>panggang sayuran di atas loyang dengan umbi utuh yang tidak dikupas</i>)	Roasting (<i>memanggang</i>)	(S) + Participle clause (adding) +adv of preposition	It implicitly contains the subject via the present participle (roasting) and is followed by a locative phrase (in a tray); additionally, there is an object that follows it explicitly.

Based on Table 8, the present participle (-ing form) is used to describe an ongoing cooking process. The most dominant verb in this category is *boiling*. In sentence (1) *boiling salted water for 15 minutes until or until very tender* the verb *boiling* is followed by the object *salted water* and the time adjunct *for 15 minutes*. Furthermore, the verb *adding* appears 68 times. In sentence (2) *adding the broccoli florets for the final 2 minutes* the verb *adding* is followed by the object *the broccoli florets* and the time adjunct *for the final 2 minutes*. Meanwhile, sentence (3) *roasting veg in a tray with the whole unpeeled bulb* contains a present participle (appearing 39 times) followed by the locative adjunct *in a tray* and an explicit object, *veg*. Overall, these findings indicate that the present participle form in English recipe discourse serves to represent an ongoing cooking process and is typically followed by an object and adjuncts that clarify the action being performed.

Resultative Complements

English recipe discourse also employs resultative constructions to specify the state or condition that an ingredient is expected to reach as a consequence of a cooking action. In construction such as *cook the meat until tender* and *cook the onions until soft*, the verb expresses the culinary action the direct object represents the affected participant, and the resultative expression specifies the resulting state. Resultative complements should be distinguished from prepositional phrases that express location or direction based on the table 9 below.

Table 9. Resultative Complements in English Cooking Recipe Discourse

No.	Sentences	Location	Structure	Explanation
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1.	heat the oil in pan (<i>panaskan minyak di atas wajan</i>)	In the pan (<i>di dalam wajan</i>)	(S) + O + prepositional phrase	It has specifies location of the action rather than a resulting state
2.	Add the water to the bowl (<i>tambahkan air ke dalam mangkuk</i>)	Adding (<i>menambahkan</i>)	(S) + O + prepositional phrase	It expresses destination of the object.

Based on the table 9, the pattern resulting state provides a criterion by which readers can determine wheter a particular cooking stage has been completed. These constructions provide contextual information about where or in which direction an action occurs, whereas resultative expressions specify the state achieved by affected participant. Distinguishing these constructions allow the analysis to identify more pricesly how English recipe discourse organizes actions, participants, location, and resulting states.

Discourse Organization of Indonesian and English Recipes

The grammatical and semantic patterns identified the two corpora also contribute to the organization of recipe discourse as a sequence of procedural actions. Rather than functioning as isolated clauses, verbs and their accompanying arguments form interconnected steps through which readers are guided from one stage of food preparation to the next. A typical procedural sequence may involve am intial preparation action, the manipulation of ingredients, a cooking process, and an indication of the resulting state. Thus, verb choice and argument structure contribute not only to the grammatical structure of individual clauses but also to the progression and coherence of the recipe as a whole. In English recipes, this procedural organization can be observed through the combination of imperative verbs, direct objects, prepositional phrases, participial modifiers, and resultative expressions. For example, an instruction such as *heat the oil in a pan* specifies an action, an affected participant, and the location of the action, whereas *cook the vegetables until tender* links the cooking action to an expected resulting state.

Discussion

The findings of this study demonstrate that cooking recipe discourse, although sharing a universal procedural communicative purpose, is realized through different linguistic mechanisms in Indonesian and English. The comparative corpus analysis reveals that verbs function as the central organizing elements of recipe discourse by encoding actions, determining participant relationships, and structuring the temporal progression from preparation to completion. This finding supports the view that discourse is not merely a collection of isolated sentences but a unified linguistic system in which grammatical elements contribute to meaning construction (Kridalaksana, 1978). In recipe discourse, verbs represent the core mechanism through which procedural instructions are transformed into actionable sequences, allowing readers to reproduce culinary processes accurately.

One of the most significant findings concerns the contrasting morphological strategies employed by Indonesian and English recipes. Indonesian recipes demonstrate a higher degree of morphological complexity through derivational processes, particularly affixation, reduplication, and compounding. Forms such as *masukkan*, *tambahkan*, and *panaskan* illustrate how Indonesian morphology contributes directly to the expression of transitivity by marking actions that affect specific objects. The dominance of the suffix *-kan* in Indonesian transitive verbs confirms previous descriptions of Indonesian morphology, particularly Ramlan's (2012) explanation that affixation plays a central role in modifying verb categories and determining grammatical relationships. Similarly,

Mustikasari et al. (2022) demonstrated that Indonesian verbs frequently undergo derivational processes that expand their semantic and syntactic functions. The present findings extend these observations by showing that such morphological mechanisms are particularly productive in procedural discourse, where the relationship between an action and its affected participant must be explicitly represented.

In contrast, English recipe discourse relies predominantly on syntactic mechanisms rather than extensive derivational morphology. The frequent occurrence of base-form imperative verbs, such as *add*, *heat*, and *cook*, indicates that English recipes construct procedural meaning primarily through word order, imperative structures, and argument realization. This finding is consistent with Aarts (2018), who emphasizes the importance of syntactic organization in determining argument structure in English. Unlike Indonesian, where morphological markers frequently indicate changes in verb valency, English typically depends on the position of the object after the verb to establish transitive relationships. Therefore, the differences identified in this study support typological arguments that languages employ different grammatical resources to encode similar communicative functions.

The dominance of transitive verbs in both corpora represents another important finding. Indonesian recipes contained approximately 70% transitive verbs, whereas English recipes contained approximately 56% transitive verbs. This pattern confirms that procedural discourse is inherently action-oriented because cooking instructions typically describe activities that intentionally transform ingredients into desired culinary products. Similar observations have been reported in studies of procedural texts, where verbs establish event structures by specifying actions, participants, and resulting states (Dixon, 2009; Kazeminejad & Palmer, 2023). The present study extends these perspectives by demonstrating that transitivity patterns are not only grammatical phenomena but also discourse strategies that enable readers to follow sequential cooking processes.

The findings regarding Indonesian transitive verbs also support the relationship between morphology and semantic roles. Indonesian verbs containing *meN-*, *-kan*, and *-i* frequently encode actions involving an agent, an affected object, and a resulting change of state. For example, verbs such as *masukkan* (“put in”), *tambahkan* (“add”), and *panaskan* (“heat”) represent high-transitivity events because they involve intentional actions directed toward specific culinary objects. These results correspond with Hopper and Thompson’s (1980) transitivity framework, which conceptualizes transitivity as a continuum involving parameters such as agency, affectedness, and change of state. The present research confirms that recipe discourse tends to favor highly transitive events because cooking inherently involves manipulating ingredients through controlled actions.

The analysis of English recipe verbs further highlights the role of imperative constructions and participial forms in representing procedural stages. English recipes frequently employ bare infinitives as commands, while *-ing* participles represent ongoing cooking processes such as *boiling*, *adding*, and *roasting*. These findings are consistent with Fan and Hunter (2023), who demonstrated that English recipe texts contain linguistic structures that correspond closely with cooking events and process stages. The present study expands this perspective by showing that grammatical forms are directly associated with discourse functions: imperative verbs initiate actions, participles represent ongoing processes, and resultative expressions indicate completed culinary states.

Another contribution of this study lies in demonstrating how verb forms contribute to the overall discourse organization of recipes. Both Indonesian and English recipes follow a similar procedural structure involving preparation, manipulation, transformation, and completion. However, the linguistic realization of these stages differs. Indonesian achieves procedural compactness through morphological marking, whereas English achieves procedural clarity through syntactic arrangement, auxiliary

constructions, and explicit argument structures. This finding supports cross-linguistic research emphasizing that equivalent meanings may be expressed through different grammatical resources across languages (Krzyszowski, 1990). The study therefore confirms that linguistic differences should not be interpreted as differences in communicative purpose but as variations in the strategies available within each language system.

The findings also contribute to research on recipes as cultural and communicative artifacts. Previous studies have examined recipes not only as instructional texts but also as representations of cultural identity and culinary heritage (Berrebbah, 2020; Partarakis et al., 2021). While these studies emphasize social and cultural dimensions, the present research adds a linguistic perspective by showing how grammatical choices encode culinary knowledge. The use of particular verb forms reflects how speakers of different languages conceptualize actions, participants, and transformations during cooking activities. Furthermore, this study advances previous recipe discourse research by integrating morphological analysis, grammatical transitivity, semantic transitivity, and corpus methodology within a single comparative framework. Earlier studies generally examined individual aspects of recipe discourse, such as syntactic structures (Sugiharti, 2021), translation practices (Barathayomi, 2022), or computational understanding of recipes (Nishimura et al., 2024). The present study extends these contributions by demonstrating how multiple linguistic levels interact in constructing procedural meaning.

Nevertheless, several limitations should be acknowledged. The study focuses exclusively on online recipes from two sources, which may not represent all forms of Indonesian and English culinary discourse. In addition, the corpus analysis emphasizes written recipe instructions and does not include multimodal elements such as images, videos, or user comments. Future research could expand the corpus to include different culinary genres, spoken cooking demonstrations, and multilingual recipe platforms. Such investigations would provide deeper insights into how linguistic and cultural factors influence procedural discourse.

The findings demonstrate that recipe discourse provides a valuable domain for understanding the relationship between grammar, semantics, and discourse organization. Indonesian and English recipes share the same communicative goal of guiding cooking activities, yet they employ distinct linguistic resources to represent actions and participants. Indonesian emphasizes morphological encoding, while English relies more strongly on syntactic and inflectional mechanisms. These differences highlight the importance of examining language-specific strategies in cross-linguistic discourse analysis.

CONCLUSION

This study investigated verb forms and transitivity patterns in Indonesian and English online cooking recipe discourse through a comparative corpus linguistic approach. The analysis demonstrates that although both languages share the same procedural communicative function, they employ different grammatical resources to encode cooking actions, participants, and resulting states. Indonesian recipes show greater morphological complexity through derivational affixation, reduplication, and compounding, while English recipes predominantly utilize base-form imperative verbs, participial constructions, and syntactic argument structures. The findings confirm that verb morphology and transitivity are fundamental elements in constructing procedural meaning because they determine how actions are represented, how participants are organized, and how culinary processes are sequentially interpreted.

The study contributes to cross-linguistic discourse analysis by integrating morphological, syntactic, semantic, and corpus-based perspectives in examining recipe

texts. The findings extend previous research by demonstrating that differences between Indonesian and English recipe discourse do not arise from differences in communicative purpose but from differences in linguistic systems used to express equivalent procedural meanings. Indonesian relies more heavily on morphological mechanisms to encode argument relationships, whereas English depends more strongly on syntactic organization and relatively stable verb forms. Future research should expand the analysis to broader multilingual corpora, multimodal recipe discourse, and spoken culinary communication to further explore the relationship between language structure, cultural practices, and procedural meaning-making.

RECOMMENDATION

This research needs more analysis not just in the generality of two languages but has widely elements to be detailed. We recommend further research to investigate appropriate research of semantic elements also. Its aim is to build the procedure text more applicant friendly and easy to understand.

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