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Reconceptualizing Grammatical Complexity in Contemporary English Discourse

Retno Dwigustini[1*], Muji Endah Palupi[2], Fitri Apriyanti[3]
[1]Sastra Inggris, Universitas BSI, Indonesia
[2]Sistem Informasi, Universitas BSI, Indonesia
[3]Manajemen, Universitas BSI, Indonesia
[*] *Penulis Korespondensi: retno.rgu@bsi.ac.id*

Abstract*. Grammatical complexity is a key concept in linguistics, second language acquisition, discourse analysis, and academic writing assessment. Traditionally, it has been measured through structural indicators such as sentence length, clause number, and syntactic density. However, contemporary English discourse demonstrates that grammatical complexity extends beyond formal syntactic measures, as English is increasingly used across academic, professional, digital, and AI-mediated contexts. This article aims to reconceptualize grammatical complexity through a qualitative-conceptual approach based on literature review and thematic analysis. The reviewed literature includes syntactic complexity, corpus linguistics, systemic functional linguistics, academic discourse, English as a Lingua Franca, digital discourse, and AI-assisted texts. The findings indicate that grammatical complexity should be viewed as a multidimensional construct comprising four dimensions: structural, informational, functional, and discursive complexity. These dimensions explain how grammatical choices contribute to idea organization, communicative purposes, rhetorical effectiveness, and contextual appropriateness across genres and media. The study expands the concept of grammatical complexity from a structural proficiency indicator to a contextual meaning-making resource. It also highlights methodological implications by encouraging the integration of corpus, discourse, genre, and functional linguistic approaches, with practical relevance for English language teaching, academic writing assessment, digital literacy, and AI-generated text evaluation.*

Keywords*: Academic Discourse; Corpus Linguistics; Digital Discourse; English as a Lingua Franca; Grammatical Complexity.*

1. LATAR BELAKANG

Grammatical complexity has long occupied a central position in linguistics, second language acquisition, discourse analysis, and academic writing research. Traditionally, the concept has been associated with the degree of structural elaboration manifested in sentence length, clause density, subordination, coordination, complex noun phrases, syntactic embedding, nominalization, and lexical density. In applied linguistics, grammatical complexity is often discussed within the framework of complexity, accuracy, and fluency, commonly known as CAF, which has been widely used to evaluate language development, particularly in second and foreign language contexts (Ortega, 2003; Norris & Ortega, 2009; Housen et al., 2012). This tradition has provided a strong methodological foundation because complexity can be quantified through measurable syntactic indices. Nevertheless, the changing nature of contemporary English discourse suggests that grammatical complexity can no longer be adequately understood through linear structural measurement alone. English is now used across academic, professional, digital, transnational, and multimodal environments, where grammatical form interacts with communicative purpose, genre convention, social identity, technological mediation, and discourse practice.

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Previous research has made a significant contribution to the measurement of syntactic complexity. Ortega (2003), through a synthesis of college-level L2 writing studies, demonstrated that syntactic complexity measures can serve as useful indicators of second language proficiency. Lu (2010, 2011) further advanced this field by developing automated tools that measure syntactic complexity through indices such as mean length of T-unit, clauses per T-unit, dependent clauses per clause, and complex nominals per clause. Bulté and Housen (2012, 2014) also emphasized that complexity is a multidimensional construct that cannot be reduced to a single measure. Later studies shifted attention from clausal elaboration to phrasal complexity. Biber, Gray, and Poonpon (2011), followed by Biber and Gray (2016), argued that advanced academic English is often characterized less by extensive clausal subordination and more by dense noun phrases, nominalization, prepositional phrases, and compact information packaging. Kyle and Crossley (2018) similarly found that fine-grained phrasal indices were stronger predictors of writing quality than many traditional clausal measures. These findings indicate that grammatical complexity is not a fixed structural property but a construct whose manifestation varies across proficiency level, genre, register, and communicative context.

The need to reconsider grammatical complexity becomes more urgent when English is examined as a global language used by speakers from diverse linguistic, cultural, and disciplinary backgrounds. In the context of English as a Lingua Franca, grammatical complexity should not be equated with conformity to native-speaker norms. It is more appropriately understood in relation to communicative effectiveness, meaning negotiation, register flexibility, and discourse adaptability (Seidlhofer, 2011; Jenkins, 2015; Mauranen, 2018). This perspective moves the discussion from a normative model of grammatical sophistication to a functional model of communicative resourcefulness. A syntactically simple structure may carry high pragmatic complexity when it is used to negotiate stance, maintain politeness, manage interpersonal distance, or address heterogeneous audiences. Conversely, a structurally complex sentence may fail communicatively if it does not suit the expectations of genre, medium, audience, or discourse community. Therefore, grammatical complexity must be analyzed as a dynamic interaction between linguistic form, communicative function, and social context.

A major conceptual problem in existing research is that grammatical complexity is still frequently treated as a stable and objective property of texts that can be captured through a limited set of automated measures. Although such measures are valuable, they do not fully explain how grammar functions as a discourse resource. Pallotti (2015) argues that linguistic complexity must be understood in relation to users, systems, and communicative demands.

Halliday and Matthiessen (2014) conceptualize grammar as a meaning-making system through ideational, interpersonal, and textual metafunctions. Hyland (2019) also shows that grammatical choices in academic writing are inseparable from rhetorical practice, authorial identity, disciplinary positioning, and reader engagement. These perspectives suggest that grammatical complexity is not merely a matter of syntactic difficulty. It is also a matter of how grammatical resources organize information, construct stance, manage interaction, and build discourse coherence.

The emergence of digital communication has further complicated the study of grammatical complexity. Contemporary English discourse now appears in research articles, conference abstracts, academic blogs, professional networking platforms, online comments, corporate communication, digital journalism, social media interaction, and AI-assisted texts. Each medium produces different grammatical expectations. Academic writing tends to privilege dense nominal structures, information compression, and discipline-specific patterns, while digital discourse often relies on shorter, fragmented, dialogic, and interactive structures that may still be pragmatically and intertextually complex. Recent corpus-based studies demonstrate growing interest in genre variation, learner writing, children's writing, and AI-generated texts as objects of linguistic complexity analysis. Hsiao (2024), for example, examined linguistic complexity in more than 100,000 children's short stories, while Tudino (2024) and Wu (2025) incorporated AI-generated texts into corpus-based analyses of syntactic complexity, cohesion, and linguistic patterns.

These developments reveal an important theoretical, methodological, and empirical gap. Theoretically, grammatical complexity is often conceptualized as an internal textual property rather than as a product of interaction among linguistic form, communicative intention, medium, genre, speaker identity, and social practice. Methodologically, many studies still rely heavily on quantitative indices that are useful for measurement but insufficient for interpreting the discourse functions of grammatical choices. Empirically, much research remains concentrated on academic writing and learner writing, while contemporary English is increasingly produced in digital, professional, transnational, multimodal, and technologically mediated spaces. This gap does not imply that syntactic measures should be abandoned. Instead, it suggests that they should be repositioned within a broader interpretive framework that integrates structural indices, discourse function, genre analysis, register variation, multimodality, and contextualized language use.

This article argues that grammatical complexity in contemporary English discourse should be reconceptualized as a multidimensional, dynamic, and context-sensitive phenomenon. Complexity does not reside only in long sentences, multiple clauses, or embedded structures. It also lies in how grammar organizes information, compresses meaning, constructs authorial stance, negotiates interpersonal relations, and adapts to genre-specific expectations. From this perspective, grammatical complexity may be approached through four interrelated dimensions: structural complexity, informational complexity, functional complexity, and discursive complexity. Structural complexity concerns syntactic form; informational complexity concerns semantic density and conceptual relations; functional complexity concerns rhetorical purpose; discursive complexity concerns the relationship between grammar, identity, genre, medium, and social practice. This framework is consistent with multidimensional corpus linguistics (Biber, 1988, 1995; Egbert & Biber, 2019), systemic functional linguistics (Halliday & Matthiessen, 2014), and contemporary discourse studies (Flowerdew & Richardson, 2018; Hyland, 2019; Zappavigna, 2018).

The main contribution of this study lies in broadening the understanding of grammatical complexity from a predominantly structural construct into a discourse-oriented and contextually grounded concept. Theoretically, it reframes grammatical complexity as a meaning-making resource rather than merely as an indicator of proficiency. Methodologically, it encourages the integration of corpus analysis, discourse analysis, genre analysis, and functional grammar. Practically, it has implications for English language teaching, academic writing instruction, digital literacy, writing assessment, and the development of automated language analysis tools. By reconceptualizing grammatical complexity in this way, the study contributes to contemporary linguistic scholarship by positioning grammar not only as a measurable system of forms, but also as an interpretive resource embedded in evolving communicative practices.

2. KAJIAN TEORITIS

Grammatical complexity is a central construct in contemporary linguistics because it concerns how language builds, organizes, and compresses meaning through grammatical structure. In applied linguistics, grammatical complexity is commonly associated with sentence length, clause density, subordination, coordination, complex noun phrases, nominalization, syntactic embedding, and other forms of structural elaboration (Ortega, 2003; Norris & Ortega, 2009; Housen et al., 2012). The construct has been widely used in second language acquisition, writing assessment, corpus linguistics, and discourse analysis. It is often treated as an indicator

of linguistic development because it reflects the extent to which speakers or writers are able to mobilize grammatical resources to express ideas in more elaborate, condensed, and rhetorically effective ways.

Within the framework of Complexity, Accuracy, and Fluency, grammatical complexity is positioned as one of the main dimensions of language performance. Skehan (1998) and Ellis (2008) argue that complexity reflects a learner's ability and willingness to use varied and cognitively demanding linguistic structures. Housen and Kuiken (2009) further explain that complexity concerns not only the number of structures used but also the range, diversity, and depth of linguistic processing. Bulté and Housen (2012) later emphasize that complexity is a multidimensional construct that cannot be reduced to a single index. From this perspective, grammatical complexity is not simply a surface property of language; it is also related to cognitive processing, rhetorical choice, communicative purpose, and discourse convention.

Traditional syntactic research has measured complexity through clausal indicators such as subordinate clauses, T-units, clauses per sentence, dependent clauses per clause, and mean length of clause. Lu (2010, 2011) made a major contribution by developing automated tools for analyzing syntactic complexity in second language writing. These tools enabled more systematic and replicable corpus-based studies. However, later research demonstrated that clausal indices alone are insufficient for explaining complexity in advanced academic writing. Biber, Gray, and Poonpon (2011) argued that academic writing does not necessarily develop through increased clausal subordination, but through phrasal density, especially complex noun phrases, prepositional phrases, and nominalization. Biber and Gray (2016) further show that modern academic English is more phrasal than clausal in its dominant discourse style.

The distinction between clausal and phrasal complexity is crucial for reconceptualizing grammatical complexity. In earlier stages of language development, complexity may appear through the use of subordinate clauses. At more advanced levels, particularly in academic writing, complexity often emerges through dense information packaging in phrasal structures. Kyle and Crossley (2018) found that fine-grained phrasal indices can predict writing quality more effectively than several traditional clausal measures. Staples et al. (2016) also demonstrated that academic writing complexity varies across level of study, discipline, and genre. These findings indicate that grammatical complexity is not a universal phenomenon that appears in the same form across all contexts. It is shaped by discourse type, communicative purpose, disciplinary community, and register. Recent corpus-based work also strengthens the importance of disciplinary variation in clausal, intermediate, and phrasal features of academic writing.

Structural Approaches and Their Limitations

Structural approaches have contributed significantly to grammatical complexity research because they provide explicit, measurable, and replicable indices. Measures such as mean length of clause, mean length of T-unit, clauses per sentence, dependent clauses per clause, complex nominals per clause, and coordinate phrases per clause allow researchers to compare texts according to their level of grammatical elaboration (Wolfe-Quintero et al., 1998; Lu, 2010; Lu, 2011). Such measures are especially important in quantitative studies because they enable empirical analysis of the relationship between complexity, proficiency, writing quality, and language development. McNamara et al. (2014), through Coh-Metrix, also demonstrated that linguistic features can be used to assess coherence, complexity, readability, and text quality automatically.

The limitation of structural approaches becomes evident when complexity is treated only as the number or density of syntactic forms. Pallotti (2015) criticizes this tendency by distinguishing absolute complexity, relative complexity, and subjective complexity. Absolute complexity refers to the number of elements in a linguistic system; relative complexity concerns difficulty for particular users; subjective complexity concerns perceived processing difficulty. This framework shows that a structure that is formally complex is not necessarily communicatively complex, while a formally simple structure may carry high pragmatic complexity. Such a distinction is essential for contemporary discourse analysis because modern English discourse does not always rely on long sentences or dense subordination to produce complex meaning.

Another critique comes from systemic functional linguistics. Halliday and Matthiessen (2014) conceptualize grammar as a meaning-making system rather than merely a formal system of rules. Grammatical structures operate through ideational, interpersonal, and textual metafunctions. In this framework, grammatical complexity is determined not only by syntactic form but also by how structures represent experience, enact social relations, and organize discourse. For example, nominalization in academic writing does not merely increase phrasal complexity; it transforms processes into conceptual entities, enabling abstraction, classification, and scientific reasoning. This view positions grammatical complexity as part of knowledge construction.

Structural approaches also tend to underrepresent genre and register. Biber (1988, 1995) demonstrates that grammatical variation is strongly shaped by register, mode, and communicative purpose. A feature considered complex in one genre may function differently in another. Academic prose, conversation, journalism, professional reports, digital comments,

and promotional discourse exhibit different patterns of complexity. Egbert and Biber (2019) argue that corpus analysis should consider the distribution of linguistic features across registers, not merely raw frequency. Therefore, grammatical complexity should be analyzed as a usage-based phenomenon embedded in particular social and communicative contexts.

Grammatical Complexity in Academic Discourse

Academic discourse is a central site for studying grammatical complexity because it requires writers to package information, build arguments, construct claims, and establish scholarly authority. Hyland (2019) explains that academic writing does not simply transmit information; it also constructs authorial identity, manages reader relationships, and negotiates disciplinary positioning. Grammatical complexity in academic writing is closely linked to rhetorical practices such as hedging, boosting, stance-taking, citation, evaluation, and metadiscourse. Dense grammatical structures help create the impression of objectivity, abstraction, and scientific precision while also functioning as tools of academic persuasion.

Biber and Gray (2016) show that the historical development of academic English reflects a shift from clausal discourse style toward phrasal discourse style. Modern academic prose increasingly relies on complex noun phrases, premodification, postmodification, prepositional phrases, and nominalization. This shift produces texts that are informationally dense without necessarily being more clause-heavy. In this context, grammatical complexity is not simply a matter of having more clauses but of integrating ideas into compact grammatical units. Biber et al. (2020) also argue that grammatical complexity is a multidimensional construct in which different features serve different discourse functions across registers; referential elaboration is more common in written registers, while stance and framing features are more common in spoken registers.

Studies on L2 academic writing also show that complexity develops in a non-linear manner. Ortega (2003) states that increased second language proficiency does not necessarily lead to simultaneous improvement across all complexity measures. Some learners may develop in clause length, while others may develop in phrasal elaboration or structural diversity. Taguchi, Crawford, and Wetzel (2013) found that argumentative writing quality depends on a combination of linguistic features rather than a single complexity indicator. Crossley (2020) similarly demonstrates that writing quality is shaped by the interaction of syntactic, lexical, cohesion, and readability features. These findings suggest that grammatical complexity should be understood as part of a broader textual ecology.

Disciplinary variation is another crucial aspect of grammatical complexity in academic discourse. Hard and soft disciplines have different grammatical conventions for constructing arguments and presenting knowledge. Hyland (2005, 2019) shows that each discipline has distinctive ways of making claims, using citations, and expressing authorial position. Pérez-Guerra (2021) found syntactic variation between academic articles in hard and soft sciences, particularly in the use of clausal and phrasal structures. These differences suggest that grammatical complexity cannot be separated from disciplinary epistemology. Scientific discourse that emphasizes objects, procedures, and results tends to differ from social science and humanities discourse, which is often more argumentative, interpretive, and evaluative.

English as a Lingua Franca and Functional Complexity

The development of English as a lingua franca changes how grammatical complexity should be understood. In traditional paradigms, complexity has often been associated with proximity to native-speaker norms. The more complex and standard-like a structure is, the more it tends to be valued as evidence of proficiency. The English as a Lingua Franca perspective challenges this assumption. Seidlhofer (2011), Jenkins (2015), and Mauranen (2018) argue that English is now used by more non-native speakers than native speakers, and that communicative effectiveness does not always depend on full conformity to native-speaker standards. Complexity should therefore be understood in relation to meaning negotiation, intelligibility, adaptability, and interactional flexibility.

In ELF contexts, grammatically simple structures may perform complex communicative functions when they enhance clarity, reduce ambiguity, and facilitate intercultural communication. Conversely, highly dense or idiomatic structures may hinder understanding in global communication. Cogo and Dewey (2012) emphasize that ELF users often innovate pragmatically to achieve communicative effectiveness. Mauranen (2018) conceptualizes ELF as a dynamic interactional space in which speakers adapt language forms to situational needs. This perspective is important for reconceptualizing complexity because it demonstrates that complexity is not merely formal but also functional and adaptive.

Functional complexity refers to the ability of grammatical structures to perform particular communicative tasks. In academic writing, complex structures may connect arguments, qualify claims, express causality, and construct epistemic stance. In professional communication, complexity may emerge through instructions, mitigation, persuasion, and institutional accountability. In digital discourse, complexity may appear through fragmentation, ellipsis, intertextuality, hashtags, and responsiveness. Zappavigna (2018) shows that social media discourse has distinctive forms of metadiscourse, especially through hashtags and searchable

talk. This indicates that complexity in digital discourse does not necessarily take the form of long sentences; it may operate through intertextual relations, social indexing, and community-building functions.

ELF and digital discourse both expand the meaning of grammatical complexity. They show that grammatical structure cannot be evaluated apart from communicative context. Complexity should be seen as the capacity of language to function effectively in particular situations. This aligns with Fairclough's (2013) view of language as social practice and Gee's (2015) understanding of discourse as the relationship between language, identity, activity, and social value. In contemporary English discourse, grammatical complexity must therefore be situated within the relationship between linguistic form and the social practices that shape its meaning.

Digitalization, AI, and the Transformation of Grammatical Complexity

Digitalization has expanded the spaces in which English discourse is produced. Texts now circulate not only in books, journal articles, and official documents but also in social media, academic blogs, professional platforms, online comments, discussion forums, corporate emails, and AI-mediated systems. This shift in medium has changed grammatical patterns. Digital texts are often shorter, more dialogic, more fragmented, and more responsive, yet they may still carry high pragmatic and discursive complexity. Androutsopoulos (2014) and Zappavigna (2018) argue that digital language is interactive, participatory, and networked. Complexity in this medium emerges not only from sentence structure but also from intertextuality, symbols, hyperlinks, multimodality, and identity performance.

AI-generated text has further expanded the debate on grammatical complexity. AI systems can imitate academic patterns, generate complex syntax, and produce coherent information structures. Recent corpus-based research comparing AI-generated texts and student essays examines lexical diversity, syntactic complexity, and readability, showing that AI text has become an important object of analysis in studies of style, readability, and linguistic complexity. A recent survey of AI-generated text notes that existing research remains heavily concentrated on English data and GPT-family models, while frequently reporting AI tendencies toward more formal, impersonal, and sometimes repetitive styles. Other work demonstrates that differences between human and LLM-generated texts can be analyzed through formal syntactic theory, including in news genres.

The emergence of AI shows that grammatical complexity can no longer be understood only as a marker of human proficiency. A text may appear syntactically complex because it has been generated by an automated system, but such complexity does not necessarily imply

rhetorical depth, contextual sensitivity, or argumentative originality. This makes it important to distinguish structural complexity from discursive complexity. Structural complexity can be replicated by machines through probabilistic language modeling, while discursive complexity involves purpose, stance, responsibility, ethics, social context, and writer-reader relations. This distinction is increasingly important in academic writing instruction, writing assessment, and linguistic research in the age of AI.

Digitalization and AI also require more integrative methods of analysis. Automated analysis remains valuable because it can process large datasets and detect grammatical patterns. However, quantitative results need to be combined with genre analysis, discourse analysis, and functional interpretation. Cheung (2025) shows that corpus linguistics and generative AI are beginning to be integrated to support discipline-specific academic writing development. This development suggests that the future of grammatical complexity research lies not only in measuring structures but also in interpreting how those structures operate within human and technological communication ecosystems.

Reconceptualizing Grammatical Complexity in Contemporary English Discourse

Based on the theoretical and empirical developments discussed above, grammatical complexity in contemporary English discourse should be understood as a multidimensional, dynamic, and context-sensitive phenomenon. Earlier approaches that define complexity primarily as syntactic elaboration remain important, but they are insufficient for explaining current English discourse practices. Contemporary discourse moves across academic, professional, digital, global, and technological spaces. Each discourse space constructs complexity differently. Academic writing builds complexity through phrasal density and abstraction; ELF communication builds complexity through meaning negotiation and adaptation; digital discourse builds complexity through interactivity and intertextuality; AI-generated texts build complexity through probabilistic replication of grammatical patterns.

This reconceptualization may be organized into four dimensions. The first is structural complexity, which refers to syntactic elaboration through clauses, phrases, nominalization, embedding, and constructional variation. The second is informational complexity, which refers to conceptual density, abstraction, semantic relations, and information packaging. The third is functional complexity, which concerns the rhetorical, interpersonal, and communicative work performed by grammatical structures. The fourth is discursive complexity, which concerns the relationship between grammar, genre, medium, identity, ideology, and social practice. These dimensions allow grammatical complexity research to move beyond measurement toward interpretation.

This framework brings together several theoretical traditions. From corpus linguistics, it draws attention to patterns, distributions, registers, and textual variation (Biber, 1988; Biber, 1995; Egbert & Biber, 2019). From systemic functional linguistics, it adopts the view of grammar as a meaning-making resource (Halliday & Matthiessen, 2014). From academic discourse studies, it takes interest in rhetoric, identity, and disciplinary community (Hyland, 2005; Hyland, 2019). From ELF research, it incorporates intelligibility, adaptability, and global communication (Seidlhofer, 2011; Jenkins, 2015; Mauranen, 2018). From digital discourse studies, it incorporates medium, interactivity, multimodality, and technological mediation (Androutsopoulos, 2014; Zappavigna, 2018).

Therefore, grammatical complexity should not be treated as a static construct. It is a theoretical category that continues to evolve alongside changes in English discourse practices. The article "Reconceptualizing Grammatical Complexity in Contemporary English Discourse" can be positioned as a critical-conceptual study that offers a renewed understanding of grammatical complexity. Its novelty lies in expanding the focus from form to function, from structure to discourse, from individual texts to communicative ecologies, and from monolingual norms to global, digital, and AI-mediated English practices.

3. METODE PENELITIAN

This study adopts a qualitative-conceptual approach with a theoretical review design supported by conceptual discourse analysis. This approach is appropriate because the main objective of the study is not to test causal relationships among variables statistically, but to reconceptualize the meaning of grammatical complexity in contemporary English discourse. A conceptual research design is relevant when a concept has been widely used in previous studies but requires reinterpretation due to changes in academic, social, digital, and technological contexts. In this study, grammatical complexity is not treated as a single construct measured only through sentence length, clause number, or syntactic density. It is approached as a multidimensional construct involving grammatical form, informational density, rhetorical function, genre, medium, and social practice.

The research design is interpretive in nature because it seeks to understand how grammatical complexity has been defined, operationalized, criticized, and expanded across different traditions of linguistic inquiry. These traditions include applied linguistics, second language acquisition, corpus linguistics, systemic functional linguistics, academic discourse analysis, English as a Lingua Franca, digital discourse studies, and research on AI-mediated texts. In this study, theory is not merely used as background information; it becomes the object

of analysis through which a new conceptual framework is developed. Therefore, the methodology is directed toward identifying theoretical patterns, limitations of existing approaches, and possibilities for constructing a more context-sensitive model of grammatical complexity.

The data sources consist of scholarly literature related to grammatical complexity and contemporary English discourse. The selected literature includes internationally recognized journal articles, academic books, book chapters, and corpus-based studies dealing with syntactic complexity, phrasal complexity, register analysis, academic discourse, digital communication, and AI-generated texts. The selection criteria are based on topic relevance, theoretical contribution, credibility of journal or publisher, citation influence, and connection to the issue of reconceptualization. Foundational works by Ortega, Biber, Halliday, Hyland, Seidlhofer, and other major scholars are used to establish the theoretical basis, while more recent studies are used to capture current developments in grammatical complexity, digital discourse, and technology-mediated writing.

The data collection procedure consists of searching, selecting, classifying, and synthesizing relevant literature. In the first stage, literature is collected using key terms such as grammatical complexity, syntactic complexity, phrasal complexity, academic discourse, English as a Lingua Franca, digital discourse, corpus linguistics, and AI-generated text. In the second stage, the literature is selected based on its relevance to the study's focus, particularly works discussing definitions, measures, critiques, and extensions of grammatical complexity. In the third stage, the selected literature is classified into thematic categories, namely structural approaches, multidimensional approaches, functional approaches, discursive approaches, and contemporary digital-oriented approaches. In the fourth stage, the classified literature is synthesized to construct a conceptual model that explains grammatical complexity as a multidimensional phenomenon.

The data are analyzed using thematic-conceptual analysis. This technique is employed to identify major themes, conceptual relationships, theoretical differences, and research gaps within the reviewed literature. The analysis is conducted through three main procedures. The first is conceptual mapping, which maps definitions and indicators of grammatical complexity in previous studies. The second is critical comparison, which compares structural approaches with functional and discourse-oriented approaches. The third is conceptual synthesis, which formulates a new framework that positions grammatical complexity within four major dimensions: structural complexity, informational complexity, functional complexity, and

discursive complexity. These four dimensions serve as the analytical foundation for the theoretical argument of the article.

To ensure conceptual validity, this study applies theoretical triangulation. Triangulation is conducted by comparing the concept of grammatical complexity from multiple theoretical perspectives, including corpus linguistics, systemic functional linguistics, academic discourse analysis, English as a Lingua Franca, and digital discourse studies. This strategy is important to ensure that the proposed reconceptualization is not dependent on a single theoretical tradition. Analytical consistency is also maintained through thematic consistency, which ensures that each proposed dimension has a theoretical basis, analytical indicators, and relevance to contemporary English discourse. Through this procedure, the conceptual framework developed in this study is expected to have both theoretical strength and methodological applicability.

This study does not use variables in a quantitative sense. Instead, it employs conceptual dimensions as operational units of analysis. These dimensions function to explain how grammatical complexity can be identified and analyzed in contemporary English discourse. The operationalization of the conceptual dimensions is presented in the following table.

Table 1. Operationalization of Conceptual Dimensions in Grammatical Complexity Analysis

Dimension/ Construct	Operational Definition	Analytical Indicators	Main Theoretical Sources	Function in the Study
Grammatical Complexity	The central construct describing the degree and function of grammatical elaboration in contemporary English discourse	Syntactic structure, informational density, rhetorical function, discursive relation	Ortega; Norris & Ortega; Bulté & Housen; Biber & Gray	Serves as the main concept to be reconceptualized
Structural Complexity	The formal elaboration of grammar manifested through clauses, phrases, and syntactic constructions	Sentence length, subordination, coordination, T-units, embedding, complex noun phrases	Lu; Biber et al.; Kyle & Crossley	Explains the formal dimension of grammatical complexity
Informational Complexity	The density and packaging of meaning within grammatical structures	Nominalization, premodification, postmodification, semantic density, information packaging	Biber & Gray; Halliday & Matthiessen	Explains how grammar condenses ideas and concepts
Functional Complexity	The capacity of grammatical structures to perform communicative and rhetorical functions	Stance, hedging, boosting, argumentation, persuasion, clarity, negotiation of meaning	Hyland; Mauranen; Seidlhofer; Jenkins	Explains the communicative role of grammar
Discursive Complexity	The relationship between grammar, genre, medium, identity, and social practice	Genre convention, register variation, intertextuality, digital interaction, AI-mediated discourse	Biber; Fairclough; Gee; Zappavigna	Explains the contextual embeddedness of grammatical complexity

Dimension/ Construct	Operational Definition	Analytical Indicators	Main Theoretical Sources	Function in the Study
Contemporary English Discourse	Contemporary English Discourse	Contemporary English Discourse	Contemporary English Discourse	Contemporary English Discourse

Based on this operationalization, the study develops a methodological framework that connects structural, informational, functional, and discursive dimensions of grammatical complexity. This framework enables grammatical complexity to be analyzed beyond the mere calculation of syntactic features. The main concern is not only how complex a grammatical structure is, but also how and why such structure works within a particular discourse context. In this way, the research methodology supports the article's objective of proposing a new conceptual model that is more relevant to the dynamics of contemporary English discourse.

4. HASIL DAN PEMBAHASAN

The conceptual synthesis indicates that grammatical complexity in contemporary English discourse can no longer be understood merely in terms of sentence length, the number of subordinate clauses, or the density of syntactic structures. Previous studies have provided an important foundation for measuring complexity through indicators such as T-units, dependent clauses, complex nominals, nominalization, and phrasal density. However, the development of English discourse across academic, digital, professional, global, and technology-mediated spaces demonstrates that grammatical complexity operates in broader ways. Complexity does not reside only in grammatical form; it also lies in how structures package information, perform rhetorical functions, construct authorial identity, adapt to genre conventions, and respond to changing communicative media. The main finding of this study is that grammatical complexity should be reconceptualized as a multidimensional construct consisting of structural, informational, functional, and discursive complexity.

The first dimension is structural complexity. This dimension remains a fundamental component because every discourse requires grammatical form as a means of organizing meaning. Traditional approaches emphasizing subordination, coordination, clause length, T-units, and syntactic embedding remain useful for identifying the formal elaboration of a text. In second language writing, for instance, increased subordination and clausal variation often indicate grammatical development. Lu (2010, 2011) demonstrates that syntactic measures can systematically map L2 writing development, while Ortega (2003) and Norris and Ortega (2009) position complexity as a key indicator of language performance. This suggests that structural complexity should not be dismissed, as it continues to provide an empirical basis for observing grammatical development.

A limitation emerges when structural complexity is treated as the sole indicator of linguistic sophistication. Advanced academic discourse is often characterized not by extensive clausal subordination but by dense phrasal packaging. Biber, Gray, and Poonpon (2011), as well as Biber and Gray (2016), show that modern academic English relies heavily on complex noun phrases, premodification, postmodification, nominalization, and prepositional phrases. Kyle and Crossley (2018) further demonstrate that phrasal indices can serve as important predictors of writing quality. These findings indicate that structural complexity should be interpreted developmentally and contextually. At certain stages, complexity may appear through clausal elaboration, while at more advanced stages it may emerge through phrasal condensation. Measures of complexity must therefore be adjusted to proficiency level, genre, and register.

The second dimension is informational complexity. In contemporary English discourse, grammatical structures do not merely arrange sentences; they also package dense meanings. Informational complexity is manifested through nominalization, abstraction, semantic density, and information packaging. In academic writing, nominalization enables processes or actions to be transformed into abstract concepts that can be treated as objects of analysis. For example, verbs such as analyze, evaluate, and interpret can be nominalized into analysis, evaluation, and interpretation. This shift is not simply a morphological transformation; it is a grammatical strategy for constructing scientific abstraction. Halliday and Matthiessen (2014) conceptualize grammar as a meaning-making resource, suggesting that nominalization and phrasal density function as grammatical mechanisms for knowledge construction.

Informational complexity also explains why a seemingly short sentence can carry a high degree of meaning density. In research articles, professional reports, and policy discourse, large amounts of information are often condensed into extended noun phrases. Such structures require readers to process relationships among elements, causal relations, conceptual categories, and argumentative positions. Biber and Gray (2016) argue that modern academic writing has developed toward an increasingly informationally dense style. Staples et al. (2016) also show that academic complexity varies across educational level, discipline, and genre. In this sense, grammatical complexity does not simply mean difficult or long structures; it refers to structures that can organize and condense meaning within limited textual space.

The third dimension is functional complexity. The synthesis shows that grammatical complexity should be understood through the communicative functions performed by linguistic structures. In academic discourse, grammar is used to build arguments, state claims, limit generalizations, express epistemic stance, and manage relations between writers and readers.

Hyland (2005, 2019) explains that academic writing always involves rhetorical interaction through hedging, boosting, stance, engagement, and metadiscourse. Structures such as modal verbs, reporting clauses, passive constructions, conditional clauses, and evaluative phrases are not merely grammatical forms; they are tools for managing scholarly positioning and interpersonal relations. Functional complexity emerges when grammatical forms work toward specific rhetorical purposes.

Functional complexity becomes especially important in the context of English as a Lingua Franca. In global communication, the effectiveness of English does not always depend on proximity to native-speaker norms. Seidlhofer (2011), Jenkins (2015), and Mauranen (2018) show that intercultural English communication emphasizes intelligibility, meaning negotiation, and communicative adaptation. A syntactically simple structure may perform high functional complexity when it enhances clarity, reduces ambiguity, and accommodates global audiences. Conversely, highly dense or idiomatic structures may hinder communication. This finding indicates that grammatical complexity cannot be evaluated solely through formal features; it must be related to the communicative functions that grammatical structures perform.

The fourth dimension is discursive complexity. This dimension extends grammatical complexity into the domains of genre, register, medium, identity, ideology, and social practice. From a discourse perspective, grammar does not stand alone as a formal system; it operates within particular social contexts. Fairclough (2013) views language as social practice, while Gee (2015) emphasizes the relationship among language, identity, activity, and social value. In academic discourse, grammar helps construct scholarly authority; in professional discourse, it manages institutional responsibility; in digital discourse, it works alongside fragmentation, hashtags, hyperlinks, responsiveness, and multimodality. Zappavigna (2018) shows that social media has distinctive patterns of metadiscourse, meaning that complexity does not always appear in long sentences but also in intertextual relations and community practices.

Discursive complexity becomes increasingly relevant when contemporary English texts are produced in digital and AI-assisted environments. Digital texts often use shorter, elliptical, and interactive forms, yet they can still convey complex social meanings. AI-generated texts may produce grammatically polished and syntactically complex structures, but such complexity does not necessarily indicate discursive depth, contextual sensitivity, or a clear authorial position. This condition requires a distinction between structural complexity, which can be replicated by automated systems, and discursive complexity, which involves intention, responsibility, context, ethics, and social relations. Reconceptualizing grammatical complexity

is therefore necessary so that language analysis does not merely measure form but also interprets meaning and social function.

Based on these four dimensions, this study proposes a reconceptualized model of grammatical complexity in contemporary English discourse. The model positions complexity as the result of interaction among form, information, function, and discourse. Structural complexity explains how language is formally organized; informational complexity explains how meaning is condensed; functional complexity explains how structures achieve communicative purposes; and discursive complexity explains how grammar operates within genre, medium, identity, and social practice. This model extends previous approaches that have tended to focus on counting syntactic features. Through this model, the analysis of grammatical complexity becomes more sensitive to the changing nature of English discourse in global, digital, and technological contexts.

The theoretical implication of this finding is that grammatical complexity research needs to move from a single-dimensional approach toward a multidimensional framework. Grammatical complexity should not be understood merely as an indicator of proficiency, but as a meaning-making resource operating within particular contexts. The methodological implication is the need to combine quantitative corpus-based analysis with qualitative discourse and genre-based analysis. Automated measures remain important, but they need to be interpreted in relation to language use. The practical implications concern English language teaching, academic writing assessment, digital literacy, and the evaluation of AI-assisted texts. Teachers, researchers, and writing assessors need to recognize that high-quality writing is not always defined by long sentences or complicated structures, but by the ability of grammar to package meaning accurately, effectively, and contextually.

In conclusion, this discussion confirms that grammatical complexity in contemporary English discourse is broader than syntactic intricacy. Complexity emerges through the interaction of structure, information, function, and social practice. This reconceptualization provides a new foundation for linguistic research, particularly for understanding how English is used in academic, global, digital, professional, and technology-mediated spaces. The article contributes by offering a conceptual framework that enables grammatical complexity to be examined more systematically, contextually, and relevantly in response to contemporary discourse developments.

5. KESIMPULAN DAN SARAN

This study confirms that grammatical complexity in contemporary English discourse can no longer be adequately understood only through traditional syntactic measures such as sentence length, clause number, subordination, or structural density. Grammatical complexity needs to be reconceptualized as a multidimensional construct consisting of structural, informational, functional, and discursive dimensions. Structural complexity explains the grammatical forms that organize language; informational complexity shows how grammar condenses ideas and concepts; functional complexity positions grammar as a rhetorical and communicative resource; while discursive complexity highlights the relationship between grammar, genre, medium, identity, social practice, digitalization, and technology-mediated texts.

This reconceptualized framework offers theoretical, methodological, and practical contributions to contemporary linguistic studies. Theoretically, it expands grammatical complexity from a proficiency indicator into a meaning-making resource embedded in particular discourse and social contexts. Methodologically, it encourages the integration of corpus analysis, discourse analysis, genre analysis, and functional linguistics so that complexity measurement does not stop at numerical indicators but also interprets function and meaning. Practically, the findings are relevant to English language teaching, academic writing assessment, digital literacy, and the evaluation of AI-generated or AI-assisted texts, particularly in recognizing that grammatical quality is not always determined by long and complicated structures, but by the accuracy, density, effectiveness, and contextual appropriateness of grammar in communication.

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