

Exploring Transitivity in English Education Students' Argumentative Writing

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ABSTRACT

Argumentative writing is an essential skill for English Education students, yet many still struggle to construct logical and persuasive arguments. This study examines how students use transitivity processes to build arguments through the framework of Systemic Functional Linguistics (SFL). A descriptive qualitative approach was employed to analyze four argumentative essays consisting of 44 clauses written by second-year English Education students at Universitas Singaperbangsa Karawang. Each clause was categorized according to Halliday and Matthiessen's (2004) transitivity system. The analysis revealed that material processes occurred 31 times, mental processes 5 times, relational processes 6 times, and verbal, behavioral, and existential processes 2 times in total. These findings show that students predominantly describe actions rather than abstract reasoning or evaluations. Pedagogically, the results suggest two key implications, first, integrating functional grammar awareness into academic writing instruction can help students understand how language constructs meaning; second, designing writing tasks that emphasize varied process types can enhance students' argument quality and critical thinking.

Key Words: *argumentative writing; EFL; English Education; transitivity; SFL*

INTRODUCTION

Argumentative writing is one of the most essential skills that students in English Education programs must develop. It demonstrates not only their ability to organize ideas logically but also their capacity to use language as a tool for reasoning and persuasion. However, many English as a Foreign Language (EFL) students continue to face challenges in constructing well-organized arguments, particularly when expressing abstract ideas or justifying their opinions in writing. These difficulties often lead to essays that are descriptive rather than analytical, suggesting that students may not yet understand how linguistic choices represent meaning within academic discourse (Pratiwi, Sundari, & Juhana, 2024).

Within this context, Halliday and Matthiessen's (2004) Systemic Functional Linguistics (SFL) framework offers a powerful approach to understanding how language is used to construct meaning in social and academic settings. Specifically, the transitivity system within the ideational metafunction provides a tool for examining how writers represent actions, thoughts, and relationships in their texts. By identifying the process types (material, mental, relational, verbal, behavioral, and existential) researchers can analyze how writers use grammar to convey experience and reasoning. This theoretical lens enables an exploration of how EFL students

translate thought into text, which is critical for the development of advanced academic writing skills.

Developing strong argumentative writing skills is crucial for university students, especially those preparing to become teachers of English. Academic success in higher education depends largely on the ability to write persuasively and critically (Emilia, 2011). Argumentative writing requires not only grammatical accuracy but also the capacity to express evaluative meaning, construct logical reasoning, and respond to opposing views. Yet, in many EFL contexts, instruction often emphasizes grammatical form over functional meaning, resulting in students who can write correctly but fail to argue effectively (Kartika-Ningsih & Gunawan, 2019).

The significance of this study lies in its focus on how meaning is constructed through transitivity patterns, which reflect how students encode experiential meaning in their argumentative essays. As Eggins (2004) notes that *every clause* represents a piece of experience; thus, analyzing process types can uncover how students perceive and represent reality in writing. Material processes, for example, tend to dominate in early writing development because they describe concrete actions. In contrast, the ability to use mental or relational processes indicates higher-level reasoning who essential for strong argumentation (Thompson, 2013). Understanding this linguistic dimension is therefore vital for identifying where students' writing development currently stands and how pedagogy can be improved.

Previous studies have shown the usefulness of transitivity analysis in revealing students' linguistic tendencies and cognitive engagement in writing. Munalim (2020) analyzed teachers' reflective journals and found that mental processes were used to express internal reflection and evaluation. Similarly, Rachmayani, Fitrawati, and Wahyuni (2024) found that elementary school students' opinion essays were dominated by material processes, suggesting that their arguments were more narrative than analytical. Pratiwi, Setyowati, and Latief (2023) extended this to the university level, revealing gender-based differences in process type usage, where female writers used more relational and mental processes than males.

While these studies provide valuable insights, the specific investigation of transitivity patterns in argumentative essays written by English Education students in Indonesia remains underexplored. Most prior research has focused either on descriptive or reflective genres rather than argumentative writing at the tertiary level. Moreover, few studies have explicitly connected the linguistic features identified through transitivity analysis with pedagogical implications for teaching academic writing. This represents a crucial research gap that the present study aims to address.

Therefore, this study aims to explore how English Education students use transitivity processes to construct arguments in their academic essays. By identifying the dominant process types and interpreting how they contribute to meaning-making, the research seeks to uncover the relationship between language choices and students' argumentative competence. The findings are expected to provide pedagogical insights for designing writing instruction that integrates functional

grammar awareness, helping students move from merely describing actions to articulating ideas critically and persuasively.

In light of the identified gaps, this study aims to explore how transitivity choices represent English Education students' linguistic realization of argumentative meaning. Guided by the Systemic Functional Linguistics (SFL) framework by Halliday and Matthiessen (2004), the research specifically addresses the following questions:

1. What types of transitivity processes (material, mental, relational, verbal, behavioral, and existential) are used by English Education students in their argumentative essays, and how frequently do they occur?
2. How are participants and circumstances realized within these processes, and how do they contribute to representing students' experiential meanings?
3. How do these transitivity patterns reflect students' ability to construct arguments and represent reasoning in their academic writing?
4. What pedagogical insights can be drawn from the analysis to inform the teaching of argumentative writing in English Education programs?

METHOD

The present study employed a qualitative descriptive research design that focused on analyzing transitivity patterns in argumentative essays written by English Education students. The purpose was to uncover how students employed different process types in constructing experiential meaning and to understand the implications of these choices for their argumentative competence. Following the conventions of Systemic Functional Linguistics (SFL), particularly Halliday's transitivity system, this study categorized clauses into six process types: material, mental, relational, verbal, behavioral, and existential (Halliday & Matthiessen, 2004). To ensure clarity and transparency, this section was organized into subsections covering the following aspects: participants, sampling procedures, sample size, measures and instruments, research design, data collection, data analysis, and ethical considerations. Each subsection provides detailed explanations to allow replication of the study while maintaining methodological rigor.

The participants of this study were four second-year students enrolled in the English Education Study Program at Universitas Singaperbangsa Karawang during the 2024 academic year. All participants were pre-service English teachers aged between 19 and 21 years, who had completed at least one semester of academic writing instruction. Their proficiency level was approximately B1–B2 on the CEFR scale, based on institutional placement results. Each participant produced one argumentative essay as part of a graded assignment in an Academic Writing course. Ethical approval for the use of these essays as research data was granted by the department, and participants gave written consent. Pseudonyms were assigned to ensure anonymity, and personal identifiers were removed from all documents.

The study employed purposive sampling, a strategy widely used in qualitative research when the aim is to select participants who can provide the most relevant and information-rich data. The inclusion criteria were: (a) the essay must follow a standard argumentative structure (introduction, body, conclusion), (b) the essay

must demonstrate adequate linguistic complexity for transitivity analysis, and (c) the essay must have been written independently by the student, with minimal teacher editing. The essays were collected from the course instructor after permission was obtained. They were then converted into Word format and carefully checked for consistency and formatting. Each essay was segmented into clauses according to SFL principles (Halliday & Matthiessen, 2004).

The dataset consisted of four argumentative essays totaling 80 clauses. While the sample size was small, it was sufficient for a qualitative descriptive study, where the focus lies on depth of linguistic analysis rather than statistical generalization (Creswell, 2014). Clause segmentation was guided by the principle that each clause expresses a single process (Egins, 2004). The decision to analyze all clauses in their entirety increased the precision of coding and reduced sampling bias. Each clause was treated as one unit of analysis, coded for process type, participants, and circumstances.

The primary analytical instrument used in this study was the Transitivity System Framework developed by Halliday and Matthiessen (2004). This framework categorizes clauses into six process types: Material (actions or events), Mental (perception, cognition, or emotion), Relational (identification or attribution), Verbal (speech or communication), Behavioral (physiological or psychological behavior), and Existential (existence or occurrence). Each clause was analyzed manually using this framework. The analysis also considered the participants (such as Actor, Goal, Senser, Carrier) and circumstances (such as time, place, manner) accompanying each process. These measures were treated as covariates that support the interpretation of how students construct experiential meaning in their writing. Reliability of coding was strengthened through peer checking with another linguistics researcher experienced in SFL. Any disagreements in process identification were resolved through discussion until consensus was reached.

This study adopted a qualitative descriptive design employing Systemic Functional Linguistics (SFL) as both the theoretical and analytical lens. SFL views language as a resource for making meaning in context, and the transitivity system provides a method for examining how meaning is expressed through grammar (Halliday & Matthiessen, 2004; Egins, 2004). The analytical procedures followed four systematic stages that directly correspond to the study's Research Questions:

1. (RQ1): Distribution of Transitivity Processes, describes the main results (frequency of each process type: material, mental, relational, verbal, behavioral, existential).
2. (RQ2): Clause-Level Realization of Processes, show how each process is used in a clause (example representative sentences).
3. (RQ3): Distribution Across Rhetorical Stages, presenting the results of the analysis based on the text structure (Introduction, Body, Conclusion).
4. (RQ4): Pedagogical Implications, draw a common thread from all the findings.

RESULTS AND DISCUSSION

The essays analyzed in this study produced a total of 44 clauses across four

student texts. Each clause was examined manually to identify process types, participants, and circumstances. The six process types defined by Halliday and Matthiessen (2004) (material, mental, relational, verbal, behavioral, and existential) were used as the analytical framework. Following Eggins (2004), these process types illustrate how language represents experiences and ideational meaning. The following subsections present the distribution patterns of these processes, the clause-level realizations, their variation across rhetorical stages, and the pedagogical implications emerging from the findings.

Distribution of Transitivity Processes

Representative clauses were selected to illustrate the structural patterns associated with the major process types.

Table 1. Distribution of Transitivity Processes in Students' Essays

Process Type	Frequency (N)	Percentage (%)	Example Clause
Material	31	70.4%	"Taxing fast food unfairly targets lower-income individuals who rely on it as an affordable meal option."
Relational	6	13.6%	"Fast food is not the sole cause of health problems."
Mental	5	11.3%	"I disagree with this approach."
Verbal	1	<2%	"Some suggest that governments should apply higher taxes on fast food."
Behavioral	1	<2%	"...they eat too much fast food."
Existential	—	0%	—

The predominance of material processes suggests that students tend to describe actions and observable realities rather than exploring abstract reasoning or evaluative thinking. This aligns with findings by Pratiwi, Sundari, and Juhana (2024), who noted that EFL students' argumentative writing frequently centers on tangible actions and factual descriptions instead of deeper analytical insights. From the SFL perspective, Halliday and Matthiessen (2004) explain that material clauses construe processes of doing and happening, representing the external world of experience. Hence, the students' reliance on this process type indicates a developing ability to describe phenomena, though it may also signal limited use of interpersonal or reflective meaning.

Meanwhile, mental processes, which encode thinking, feeling, or perceiving (Eggins, 2004), appeared as the second most frequent category. This shows that while students attempt to express viewpoints or evaluative stances, they may still struggle to integrate them effectively within argumentative structures. The limited use of

relational processes also suggests that students rarely define or classify key concepts (a crucial aspect in constructing analytical coherence).

The minor presence of verbal, behavioral, and existential processes indicates that students seldom attribute statements to other voices, express reactions, or assert existence of ideas. This implies that their essays tend to be monologic, focusing mainly on the author's own claims without referencing external perspectives. As Emilia (2011) and Thompson (2013) argue, an advanced argumentative essay typically involves complex interaction between experiential, interpersonal, and textual meanings, which may still be underdeveloped in early-stage EFL learners.

Clause-Level Realization of Processes

To understand how transitivity operates in students' argumentative writing, several representative clauses were examined from different essays. These examples demonstrate how each process type contributes to constructing meaning and argumentation. Each clause was analyzed according to the transitivity framework proposed by Halliday and Matthiessen (2004), which identifies the process, participants, and circumstances to reveal how language structures experience. Table 2 presents four clauses that best represent the major process types identified in the data.

Table 2. Examples of Transitivity Realizations in Students' Clauses

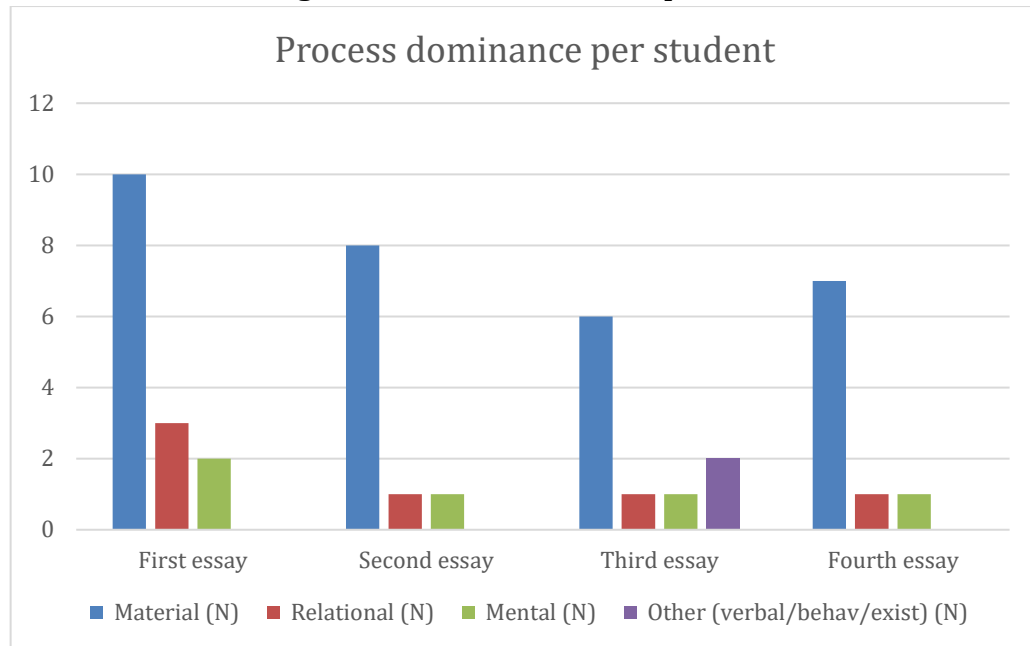
No	Clause	Process Type	Participants	Circumstances	Explanation
1	<i>I disagree with this approach.</i>	Mental	Senser: I; Phenomenon: this approach	—	Indicates a stance through mental process <i>disagree</i> , expressing the writer's internal evaluation.
2	<i>Some suggest that governments should apply higher taxes on fast food.</i>	Verbal	Sayer: Some; Verbiage: governments should apply higher taxes...	—	Uses verbal process <i>suggest</i> to introduce an external voice or general opinion.
3	<i>One of the main reasons</i>	Relational	Carrier: One of the main	—	Defines a cause-effect

	<i>for supporting higher taxes is that it can serve as a deterrent.</i>		reasons...; Attribute: that it can serve as a deterrent		relationship using a relational process is.
4	<i>People choose fast food because it is cheaper than healthier alternatives.</i>	Material	Actor: People; Process: choose; Goal: fast food	Circumstance: because it is cheaper than healthier alternatives	Depicts a concrete action, showing cause and motivation through material process.

These examples highlight the functional role of each process: material clauses for actions, mental clauses for stance-taking, relational clauses for explanations, and verbal clauses for attributing viewpoints. The presence of these processes indicates that students are beginning to construct ideational meaning through a combination of experiential, logical, and evaluative resources.

A broader quantitative view of how students distribute these process types is shown in Figure 1, which presents the frequency of each process type across the four essays. The figure demonstrates that material and relational processes dominate the dataset, while mental processes appear less frequently and verbal or existential processes are rare. This imbalance reflects a reliance on action-based or descriptive expressions rather than evaluative or dialogic reasoning.

Figure 1. Process dominance per students



The process distribution suggests that while students can describe facts and outline causal relationships, they have not yet reached a stage where argumentative writing integrates higher-order reasoning and intertextual engagement. This pattern aligns with findings from Pratiwi et al. (2024), who observed that Indonesian EFL learners often struggle to incorporate mental and verbal processes that signal critical evaluation. According to SFL theory, a balanced use of process types is necessary for constructing arguments that are not only informational but also persuasive and reflective (Eggs, 2004; Halliday & Matthiessen, 2004).

Overall, the integration of examples (Table 2) and cross-student distribution (Figure 1) shows that the students' ideational meaning-making still leans toward concrete description rather than abstract reasoning. This finding provides a foundation for understanding how their linguistic resources shape the quality of their argumentative writing.

Distribution Across Rhetorical Stages

A rhetorical-stage analysis was conducted to reveal how transitivity patterns vary across the organizational structure of students' argumentative essays. Each essay was divided into three stages (introduction, body, and conclusion) to determine how different process types contribute to the function of each stage in argument construction. This analysis is grounded in the systemic functional view that genre structure and linguistic choices are interdependent (Eggs, 2004).

Table 3. Distribution of Transitivity Processes across Rhetorical Stages

Stage	Material (%)	Mental (%)	Relational (%)	Others (V+B+E) (%)
Introduction	55.6%	16.7%	22.2%	5.5%
Body	60%	14%	16%	10%
Conclusion	50%	16.7%	25%	8.3%

Across rhetorical stages, the body section contained the highest number of material processes (60%), followed by relational (16%) and mental processes (14%). This distribution aligns with the typical function of the body as the main site of factual presentation and reasoning in argumentative writing (Halliday & Matthiessen, 2004). Students tended to use material processes to report actions or phenomena, for example *“People choose fast food because it is cheaper than healthier alternatives.”* Such patterns demonstrate the dominance of experiential representation over interpretive reasoning.

In the introduction, material and relational clauses also appeared frequently. Students typically began essays by presenting contextual statements or defining key issues, as in *“Fast food consumption has increased rapidly in recent years.”* Here, the relational process *has increased* and the actor *fast food consumption* jointly construct a situational background, a common rhetorical move for setting up an argument (Eggins, 2004). However, mental and verbal processes appeared less often, suggesting that students rarely expressed personal evaluation or referenced external viewpoints in their openings.

The conclusion stage displayed a slightly higher proportion of mental processes (16.7%), often used to summarize opinions and express stance. Clauses such as *“I believe that taxing fast food is not an effective solution”* show that students used mental verbs like *believe* or *agree* to restate claims, fulfilling the evaluative function of closure. This reflects an emerging awareness of how linguistic choices realize argument structure, even though such clauses remained syntactically simple.

When comparing rhetorical stages, the findings indicate a consistent reliance on material and relational processes across all sections. This dominance of experiential representation suggests that students construct arguments primarily through description and definition rather than critical evaluation or dialogic engagement. Similar trends were reported by Pratiwi, Sundari, and Juhana (2024), who found that Indonesian EFL students’ essays are often limited to observable events rather than abstract reasoning.

Nevertheless, a few instances of verbal processes appeared in body paragraphs, such as *“Some suggest that governments should apply higher taxes on fast food.”* The inclusion of such clauses marks an attempt to acknowledge external perspectives, a feature associated with advanced argumentative writing (Thompson, 2014). However, their rarity implies that students still struggle to integrate dialogic discourse into their arguments.

From a functional perspective, Halliday and Matthiessen (2004) emphasize

that effective argumentation requires a balanced use of process types: material for factual evidence, relational for logical definition, and mental for evaluative stance. The uneven distribution observed here demonstrates that learners' command of this balance is still developing. Their linguistic repertoire favors experiential meanings, leaving limited room for critical or interpersonal engagement.

Pedagogical Implications

The pedagogical implications of these findings are significant. First, explicit instruction in functional grammar, particularly in the use of transitivity, can help students understand how different process types serve distinct argumentative purposes. Material processes can be used to illustrate facts; mental processes to express reasoning; relational processes to define relationships; and verbal processes to integrate external perspectives. As Halliday and Matthiessen (2004) emphasize, the power of language lies in its ability to map meaning to function (a concept that can be directly applied in writing pedagogy).

Second, teachers in English Education programs can design writing tasks that foreground these linguistic choices. For example, writing workshops may require students to rewrite factual material clauses as mental or relational ones to practice deeper reasoning. Emilia (2011) argues that genre-based pedagogy, combined with SFL-informed feedback, provides a powerful means to improve students' awareness of language choices in argument construction. Through such scaffolding, learners can gradually shift from describing events to interpreting them, thereby strengthening both coherence and critical engagement.

Moreover, a comparative observation across essays shows that students who used a more balanced mix of process types produced more nuanced arguments. Essays containing multiple mental and relational clauses tended to exhibit stronger cohesion and clearer logical flow. This finding echoes Wibowo, Lestari, and Adrian (2022), who reported that variation in process types correlates with higher-quality writing among EFL students. Encouraging diversity in process use could therefore serve as a pedagogical strategy to enhance overall writing proficiency.

From a broader theoretical perspective, these findings reinforce the utility of Systemic Functional Linguistics as both an analytical tool and a pedagogical framework. As Eggins (2004) highlights, SFL allows researchers to move beyond surface-level grammar toward understanding how meaning operates in context. By examining students' transitivity patterns, educators can diagnose linguistic tendencies that reveal deeper aspects of learners' thinking and reasoning. In doing so, SFL bridges the gap between linguistic analysis and classroom practice, providing actionable insights for improving academic writing instruction.

In summary, the cross-essay analysis demonstrates that English Education students possess a foundational understanding of how to construct arguments but have yet to master the full range of linguistic resources needed for persuasive and critical writing. Their essays reflect the developmental stage of EFL learners transitioning from descriptive to analytical discourse. Integrating explicit SFL-based instruction particularly on transitivity and process variation, can guide students

toward more balanced, coherent, and critical academic writing practices, enhancing both linguistic competence and rhetorical sophistication.

Limitations

While this study provides valuable insights into the transitivity patterns of EFL students' argumentative writing, several limitations should be acknowledged to ensure a balanced interpretation of the findings. First, the study employed a relatively small sample size, analyzing only four essays written by English Education students. Although this allowed for detailed qualitative interpretation, the limited dataset constrains the generalizability of the results to broader populations or institutional contexts. Future research should therefore include a larger and more diverse sample to capture a wider range of linguistic variation and writing proficiency levels. Second, there exists a potential selection bias in clause identification and segmentation. The process of determining what constitutes an independent clause in complex or compound structures can be somewhat interpretive, particularly in student writing where grammatical boundaries may be inconsistent. Such subjectivity may influence the frequency count of process types and could slightly affect the proportional representation of transitivity categories.

Third, the absence of a second coder for verification represents another methodological limitation. Since transitivity analysis involves interpretive judgment, particularly in distinguishing between *material*, *relational*, and *mental* processes, involving multiple coders would enhance the reliability of the analysis. Future studies are encouraged to incorporate intercoder reliability checks or consensus coding sessions to ensure consistency and objectivity in the categorization process. Finally, this study's focus was confined to the ideational metafunction, specifically transitivity. Other linguistic metafunctions such as the interpersonal and textual, were not explored, though they play equally significant roles in shaping argumentative effectiveness. Future research could therefore expand the analysis to include mood and thematic structures, providing a more comprehensive understanding of how EFL students manage stance, cohesion, and organization in argumentative writing. Additionally, longitudinal or intervention-based studies could examine how explicit instruction in Systemic Functional Linguistics (SFL) influences students' development of transitivity control and argumentative sophistication over time.

In acknowledging these limitations, this study positions itself as a preliminary but meaningful contribution to the field, providing both a methodological foundation and a pedagogical rationale for subsequent large-scale and multi-dimensional research on the linguistic realization of argumentation in EFL contexts.

CONCLUSION

This study has demonstrated how transitivity analysis, as framed within Systemic Functional Linguistics (Halliday & Matthiessen, 2004; Eggins, 2004), provides a powerful lens for examining how EFL students construct meaning and argumentation in their academic writing. The findings revealed that material and relational processes dominate students' argumentative essays, indicating that

learners tend to represent concrete actions and generalizations rather than engage deeply with abstract reasoning or evaluative stance. These insights carry significant pedagogical implications for English Education programs: teachers can design classroom activities that explicitly integrate transitivity-based instruction to enhance students' awareness of process types, participant roles, and circumstantial elements in writing. Such instruction may be operationalized through targeted exercises, such as rewriting practice, clause unpacking, and guided peer feedback, that encourage students to vary their process use according to rhetorical purpose. In doing so, transitivity-based pedagogy not only develops grammatical awareness but also fosters critical literacy, helping learners express argumentation with clarity, cohesion, and ideational depth in academic contexts.

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REFERENCES

- Agustina, M., & Suarnajaya, W. (2021). Transitivity analysis of EFL students' narrative text in a vocational high school. *Jurnal Pendidikan Bahasa Inggris Undiksha*, 9(3), 298–307.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE.
- Eggins, S. (2004). *An introduction to systemic functional linguistics* (2nd ed.). Continuum.
- Emilia, E. (2011). *Pendekatan genre-based dalam pengajaran bahasa Inggris: Petunjuk untuk guru*. Rizqi Press.
- Ghosh, D., Beigman Klebanov, B., & Song, Y. (2020). An exploratory study of argumentative writing by young students: A transformer-based approach. *arXiv preprint arXiv:2012.08429*.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2004). *An introduction to functional grammar* (3rd ed.). Edward Arnold.
- Isti'anah, A. (2020). Learning journal and the students' achievement in grammar class: Transitivity analysis. *Dinamika Ilmu*, 17(1), 25–42.
- Kartika-Ningsih, H., & Gunawan, W. (2019). Recontextualisation of genre-based pedagogy: The case of Indonesian EFL classrooms. *Indonesian Journal of Applied Linguistics*, 9(2), 335–347.
- Martin, J. R., & Rose, D. (2008). *Genre relations: Mapping culture*. University of Toronto Press.

- Munalim, L. O. (2020). Reflective writings of teachers: A transitivity analysis. *Indonesian Journal of Applied Linguistics*, 10(2), 369–379.
- Pratiwi, D. I., Setyowati, R., & Latief, M. A. (2023). Argumentative writing ability of EFL students: A transitivity analysis based on gender. *JELLT (Journal of English Language and Language Teaching)*, 7(1), 1–14.
- Pratiwi, W. R., Sundari, H., & Juhana, J. (2024). EFL university students' argumentation ability in academic writing: A transitivity analysis from gender perspective. *EXPOSURE: Jurnal Pendidikan Bahasa Inggris*, 13(2), 221–235.
- Qin, W., Wang, W., Yang, Y., & Gui, T. (2025). Machine-assisted writing evaluation: Exploring pre-trained language models in analyzing argumentative moves. *arXiv preprint arXiv:2501.06789*.
- Rachmayani, Y. A., Fitrawati, F., & Wahyuni, D. (2024). Transitivity in opinion texts of sixth grade students: A systemic functional linguistics perspective. In *Proceedings of the International Conference on Language, Literature, and Education (ICLLE)*, 5(1), 45–56.
- Rahman, M. S. (2016). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review. *Journal of Education and Learning*, 6(1), 102–112.
- Shopen, G. (2013). Review of Paltridge, B. (2012) *Discourse analysis: An introduction*. *Australian Review of Applied Linguistics*, 36(2), 221–225.
- Stab, C., & Gurevych, I. (2016). Parsing argumentation structures in persuasive essays. *arXiv preprint arXiv:1604.07370*.
- Thompson, G. (2013). *Introducing functional grammar* (3rd ed.). Routledge.
- Wibowo, E. P., Lestari, A., & Adrian, M. (2022). A comparative analysis of transitivity system in model and student descriptive texts. *Jurnal Al-Azhār Indonesia Seri Humaniora*, 9(2), 134–145.