

RESEARCH ARTICLE

A Corpus-assisted Analysis of Transitivity Processes in Selected English Language and Mathematics Classroom Discourses in Ibadan, Nigeria

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ABSTRACT - Understanding the dynamics of verbs in classroom settings is critical for enhancing teaching and learning outcomes. Despite extensive research on transitivity in texts, little is known about how these processes operate in the dynamic environment of classroom discourse, particularly in English language and mathematics lessons in ESL contexts. This gap limits understanding of how linguistic choices influence teaching strategies and student learning outcomes. This study investigates transitivity processes employed in English language and mathematics classrooms within an ESL context. Drawing on Halliday's (1994) framework, the study identifies six process types: material, mental, relational, behavioural, verbal, and existential. Data were collected from 20 secondary classroom sessions in Ibadan, Nigeria. These sessions were transcribed, analysed, and uploaded into the #LancsBox corpus analysis software. The resulting corpus contained 32,548 words (tokens). The analysis reveals that material processes were the most frequent (43.4% in mathematics, 40.4% in English), followed by relational, mental, verbal, behavioural, and existential processes. Verbal processes, essential for communication, are more prominent in English compared to mathematics. Behavioural processes, linked to actions tied to behaviour, are minimally featured in both subjects. Mental processes, reflecting cognitive activities, are integral to learning in both subjects. Existential processes are rarely observed, while relational processes, highlighting connections between concepts, are significant in both mathematics and English. These findings contribute to educational practice by providing actionable insights into how teachers structure classroom discourse to facilitate hands-on learning, cognitive engagement, communication, and conceptual understanding. The study highlights specific linguistic features that can inform instructional strategies, curriculum development, and teacher training in ESL classrooms.

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1.0 INTRODUCTION

In the study of language education, Systemic Functional Linguistics (SFL) offers a robust theoretical framework for analysing the dynamic interplay between language, context, and social structure within educational settings. Akinseye (2017) also states that "Systemic Functional Linguistics (SFL) serves as a theoretical foundation for analysing how language mediates meaning, context, and social interaction within educational settings." Central to SFL is the concept of transitivity, which examines how actions and processes are represented in language through the identification of process types, participants, and circumstances. Understanding the distribution and usage of process types within classroom discourses provides valuable insights into how language is deployed to mediate teaching and learning processes. In the Nigerian secondary education system, English language and mathematics occupy central positions as compulsory subjects. Mastery of these subjects is essential for academic success and serves as a prerequisite for admission into tertiary institutions. However, challenges such as large class sizes, limited instructional resources, and varied student language proficiency often impede effective teaching and learning. For example, Ahmad and Mohd Radzuan (2015) highlight that teachers' perceptions and classroom practices significantly influence teaching effectiveness, particularly in EFL contexts, suggesting that reflective and adaptive approaches can mitigate some of these challenges. Given these challenges, educators must be able to understand their students' characteristics to effectively teach and engage with them in learning (Hatmanto & Purwanti, 2020). Therefore, analysing transitivity processes is crucial for identifying how teachers structure classroom discourse to facilitate understanding, communication, and problem-solving, as well as highlight linguistic patterns that support conceptual and cognitive development.

Moreover, English language and mathematics are foundational subjects that equip students with essential skills such as critical thinking, communication, and problem-solving, which are vital for navigating an increasingly complex and interconnected world. Understanding the linguistic features and patterns within classroom discourses can provide insights into how students use language to engage with content and express ideas. Previous research in SFL has shown that analyses of classroom discourse, including transitivity patterns, can illuminate aspects of student cognition and communication, potentially informing pedagogical practices (Rizkiani, 2022). In classroom situations, the analysis of process types, including material, mental, relational, verbal, and existential processes, offers a way to examine how students construct meaning and interact with content. While direct evidence linking transitivity

analysis to improved curriculum design or learning outcomes in Nigeria is limited, studies have suggested that such analyses can help educators understand students' conceptual and linguistic engagement, thereby informing teaching strategies and curriculum development (Munalim, 2017). Therefore, this study addresses the research gap by investigating the distribution and functions of process types in selected English language and mathematics classroom discourses in Nigeria. Specifically, it aims to: (1) identify the prevalent process types deployed by the teachers and students in these classrooms, (2) examine how these processes facilitate learning and communication, and (3) explore the implications for education.

Transitivity processes, as outlined in Halliday's SFL, are instrumental in shaping how students engage with texts, express ideas, and negotiate meaning. These processes – material, mental, relational, behavioural, verbal, and existential – are not merely grammatical constructs but are pivotal in mediating teaching and learning. They facilitate the conceptualisation, analysis, and synthesis of higher-order mathematical thinking, thereby influencing students' language proficiency and communicative competence. Understanding these patterns offers more than descriptive insights; it provides a lens through which the impact of linguistic choices in classroom discourse on student learning outcomes can be examined. For students, this understanding can enhance engagement, comprehension, critical thinking, and communication skills. For educators, analysing process types offers practical guidance for designing instructional strategies, structuring classroom discussions, and selecting materials that effectively support students' cognitive and communicative development. However, most previous studies have focused on describing patterns of transitivity use, without demonstrating how these insights have directly informed teaching practices or improved learning outcomes.

Recent studies have expanded the application of linguistic analysis in educational settings. For instance, Li and Eryong (2021) employed Critical Discourse Analysis (CDA) to examine the interconnections between language, power, and societal systems in educational contexts, highlighting the significance of transitivity in understanding these dynamics. Additionally, Alhumsi et al. (2024) conducted a transitivity analysis of English course syllabi at Saudi Electronic University, revealing the dominance of material processes and the absence of existential processes, suggesting a focus on action-oriented curricula. In the Nigerian context, Akinseye (2024) explored language and power in secondary school mathematics classrooms in Ibadan, revealing how linguistic choices and hierarchical interactions influence students' engagement and learning outcomes, demonstrating the importance of analysing classroom discourse locally. Whereas findings from a study by Anis Nadiyah (2024) on corpus-assisted transitivity analysis highlight how the choice of process types (material, relational, or mental) reflects the speaker's positioning of women, their agency, evaluation, and how women are cast as actors or recipients in political discourse, the present study focuses on educational discourse. Collectively, these studies indicate that while transitivity patterns have been widely described, there is limited research comparing how language functions across different subject areas, particularly English and Mathematics.

Despite the growing body of work, a noticeable gap persists in the literature. While previous studies have primarily focused on identifying process types and their prevalence within specific textual genres or educational materials, there is a lack of direct examination of the specific usage and functions of verbs within the dynamic environment of classroom discourse, particularly in subjects like English language and mathematics. Shifting the focus to a comparative analysis of subject-specific discourse will provide more actionable insights for teachers and curriculum developers. Classroom interactions involve unique linguistic features and pedagogical considerations that can significantly influence the choice and deployment of verbs, yet this aspect remains relatively underexplored. Therefore, there is a critical need for research addressing this gap through a focused analysis of verbs within the context of classroom discourse. Understanding how verbs are utilised and their functions within English language and mathematics discourses enables educators to design more effective teaching strategies, allows curriculum developers to create materials that better align with students' learning needs, and ultimately enhances classroom learning experiences and student outcomes.

1.1 Theoretical Orientation

In the context of classroom discourse, Michael Halliday's Systemic Functional Grammar (SFG) offers valuable insights into the multifaceted functions of language in communication, particularly within educational settings. SFG posits that language fulfils three primary functions: interpersonal, textual, and ideational, each of which plays a crucial role in shaping meaning and facilitating effective communication. In the context of classroom interaction, language serves as a conduit for communication and social exchange among teachers and students. This function is realised through various lexico-grammatical systems, including Mood, Modality, and the selection of attitudinal vocabulary. The Mood system assigns speech roles and establishes interaction dynamics, while Modality navigates between affirmative and negative stances, considering factors such as probability and obligation. The textual function is concerned with organising and maintaining coherence within classroom discourse. Through systems of Theme and Information, textual meanings shape the perspective on interpersonal and ideational aspects of clauses. Theme selections set the thematic angle, while Information organisation manages the significance of informational elements, contributing to the overall coherence and intelligibility of classroom discussions and lessons. Finally, the ideational function delves into the experiential and logical dimensions of language, exploring how language interprets and represents phenomena encountered in learning. Ideational meaning encompasses two subtypes: logical meaning and experiential meaning.

Logical meaning perceives language as a form of natural logic, which is realised through the complexity of clauses. According to Gerot and Wignell (1994), a clause, defined as the largest grammatical unit, consists of a noun and a verb, potentially forming a complete sentence. Clauses are categorised into clause simplex and clause complex, each serving distinct functions within grammar. Clause complex refers to the unit formed when multiple clauses are linked by tactic and logico-semantic relations, while clause simplex denotes single-clause units. Experiential meaning, on the other hand, views language as a tool for referring to entities in the world and their interactions. It encompasses the expression of perspectives on ongoing events, including the portrayal of entities, their attributes, and contextual details such as location, time, and manner. In the realm of experiential meaning, the system of transitivity plays a pivotal role. Transitivity is thus a grammatical system that describes world experiences realised through processes, participants, and situations

(Megah, 2019). Transitivity, belonging to experiential meaning, serves as a resource for representing processes, participants, and circumstances. Processes, participants, and circumstances are semantic categories that elucidate how real-world phenomena are linguistically structured. This research delves into ideational or experiential meaning, particularly focusing on transitivity analysis and its application to written text.

Central to the Transitivity system is the analysis of processes, which are the dynamic elements representing actions, events, or states within clauses. Understanding process types within the framework of Transitivity is paramount in teaching and learning contexts. Processes are the foundation of transitivity. Although this process focuses on the parts of the sentence discovered by language groups, it can also be seen as "in progress" for the entire sentence (Bloor & Bloor, 1995). Processes serve as the driving force behind how language constructs and conveys meaning. By delving into process types, educators gain deeper insights into the dynamics of language use in the classroom. They can identify the actions, events, or states depicted in classroom discourse, enabling them to tailor their teaching strategies effectively.

In Halliday (2014), the transitivity system is delineated as comprising six processes that encapsulate human experiences. These processes delineate physical and physiological actions (material and behavioural), cognitive and linguistic actions (mental and verbal), and actions signifying the existence and attributes of entities (existential and relational). These processes are further classified into two categories: major processes and minor processes. In the framework of the transitivity system, six distinct process types are identified: Material, Mental, Relational, Behavioural, Verbal, and Existential.

1. The Material process (MaP) involves actions and occurrences. When a clause denotes a happening process, it is termed intransitive; conversely, if it denotes an action, it is transitive.
2. The Mental process (MeP) pertains to perception and cognition, encompassing sensing and thinking activities. This process is further categorised into Perception, Affection, Cognition, and Desire subtypes, which cover activities like seeing, feeling, thinking, and desiring.
3. Relational processes (RP) are utilised to characterise and identify entities, illustrating the relationships and attributes associated with them. They comprise two subtypes: Attributive relational processes, which assign attributes, and identifying relational processes, which establish identities.
4. Verbal processes (VP) involve communication through speech. Verbs such as talk, tell, say, and ask are employed to express verbal actions, indicating dialogue, explanation, suggestion, and other forms of speech-related activities.
5. Behavioural processes (BP) pertain to physiological or psychological behaviours, such as breathing, coughing, smiling, and dreaming. These processes exhibit features overlapping with mental and verbal actions, encompassing consciousness-related behaviours, physiological states, bodily postures, and pastimes.
6. The Existential process (EP) signifies existence or occurrence without further implications. Typically featuring the verb "be," existential clauses often adopt the structure of "there be a clause." Verbs like exist, remain, arise, and happen are also used to express existence or occurrence, distinguishing existential processes from attributive or identifying relational actions.

Thus, this study examines the verbs employed, highlighting the actions undertaken to convey knowledge or ideas effectively. Equipping educators with insights allows students' learning to improve, enhancing engagement, critical thinking, and communicative competence. These insights also guide curriculum development, ensuring instructional materials and teaching methods align with both educators' approaches and students' needs. Therefore, the transitivity system serves as a fundamental tool for educators, enhancing their understanding and approach to teaching and learning processes in the classroom.

2.0 METHODOLOGY

This study employs a corpus-based approach using #Lancsbox 3.0.0 software to analyse process types in English language and mathematics classroom discourses in Nigeria. The classroom discourses were selected purposively from 10 secondary schools (public and private) in Ibadan to ensure representation of different school types, teaching styles, and student demographics. Teachers and students were selected based on their willingness to participate, experience level, and active engagement in classroom interactions. Exclusion criteria included classrooms where audio recording was not feasible or where teaching followed non-standard curricula.

Data collection involved audio recording of 20 classroom sessions and detailed classroom observations. The recordings were manually transcribed, retaining all spoken content relevant to teaching and learning interactions. Non-verbal actions such as gestures, board writing, and student participation cues were noted in observation logs but only included in transcripts when directly relevant to verbal interactions. Filler words, off-topic discussions, and private conversations not related to classroom instruction were excluded.

The identities of participants were anonymised to ensure confidentiality. Informed consent was obtained from all teachers, students, and, where applicable, parents/guardians, following ethical guidelines for research involving human participants. Ethical approval was secured from the schools, ensuring adherence to national and institutional research standards. The anonymized transcripts were uploaded into #LancsBox 3.0.0 for corpus analysis. #LancsBox was selected for its advanced capabilities, including simple word searches, phrase searches, complex CQL queries, and its GraphColl module for visualising collocation networks, which facilitate the identification of patterns and relationships among the process types. The software also supports richly annotated corpora and allows multiple analysis windows, enabling comprehensive comparisons across classroom texts. These features make it particularly suitable for this study. A total of 32,548 tokens were analysed, with 2,736 hits of verbs. Through KWIC and wordlist analyses, patterns of verb

usage and transitivity processes were systematically identified and categorised, providing insights into how linguistic choices mediate teaching and learning and supporting the development of pedagogically relevant strategies for classroom instruction.

3.0 RESULTS

The types of transitivity processes in English language and mathematics within an ESL context are determined by how the world of experience is interpreted into various manageable categories. These categories include “material, mental, relational, behavioural, verbal, and existential processes” (Halliday, 1994, p. 107). In the classroom setting, teachers wield influence over the selection of these processes during the teaching and learning of English language and mathematics. Conversely, the particular process chosen offers insight into the ideological construct in the classroom setting. The number and percentage of the six processes chosen are calculated as follows:

Table 1

Summary of process types in the selected Mathematics and English language classrooms

	MathsCD		EnglishCD	
	Frequency	Percentage	Frequency	Percentage
Material (MaP)	1188	43.4	1000	40.4
Verbal (VP)	201	7.4	306	12.4
Behavioural (BP)	17	0.6	27	1.1
Mental (MeP)	229	8.4	284	11.5
Existential (EP)	6	0.2	9	0.4
Relational (RP)	1095	40.0	850	34.3
TOTAL	2736	100	2476	100

From Table 1 above, the material processes, indicative of actions or events resulting in tangible outcomes or changes in the physical world, constitute a significant portion of the instructional content. In mathematics, they account for 43.3%, and in English, they comprise 40.3%. This signifies a strong emphasis on activities that produce observable results, highlighting the prioritisation of hands-on learning experiences and real-world applications. Conversely, verbal processes, encompassing communication or expression through language, exhibit greater prominence in English instruction at 12.3%, compared to 7.3% in mathematics. Nevertheless, they retain importance in both subjects. The higher percentage in English indicates a heightened focus on language expression and communication activities, such as discussions, debates, or presentations, contrasting with mathematics. Additionally, the low percentages of behavioural processes, standing at 0.6% in mathematics and 1.1% in English, suggest limited feature of actions tied to behaviour or conduct in the instructional content of either subject. This implies that behavioural aspects are not central to the learning objectives or instructional methods in mathematics or English.

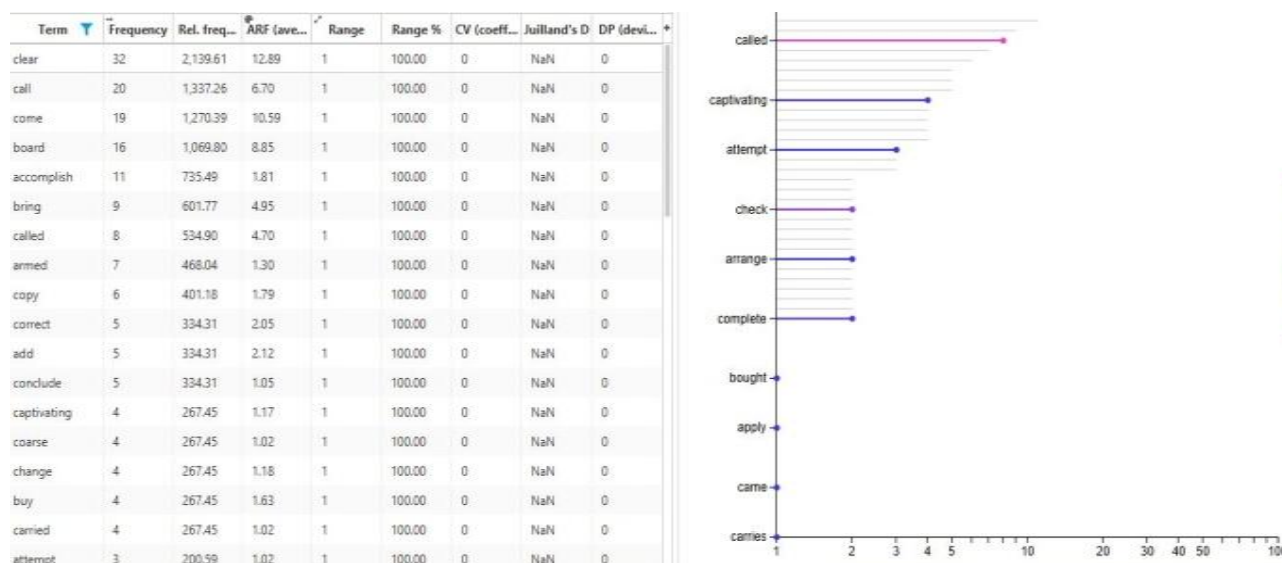
Furthermore, both mathematics and English instruction heavily involve mental processes, constituting 8.7% in mathematics and 11.5% in English. These cognitive activities, inclusive of thinking, perceiving, or understanding, are integral to learning in both subjects. The comparable percentages underscore the importance of critical thinking, problem-solving, and comprehension skills in mathematics and English education. While existential processes, dealing with existence or occurrence, are infrequently observed in both mathematics and English instruction, representing 0.2% and 0.4%, respectively, relational processes, involving connections or relationships between elements, feature prominently in both mathematics and English, accounting for 39.9% and 34.4%, respectively. This highlights the significance of establishing connections between various concepts or elements within each subject. In summary, Table 1 reveals that material and relational processes dominate both subjects, while English instruction privileges verbal and mental processes to a greater extent. This reflects subject-specific communicative demands, with mathematics foregrounding concrete action and classification, and English emphasizing expression and cognitive engagement.

3.1 Material Processes Analysis in the ESL Classroom Discourses

In the analysed classroom discourses, material processes hold particular importance as they encompass actions or events that lead to tangible outcomes or changes in the physical world. To capture these processes systematically, the study draws on a KWIC-based frequency–dispersion plot, which highlights the recurrent material process verbs across mathematics and English language classrooms (see Fig. 1). The listed examples represent tokens that appear no less than 20 times across the corpora, mirroring recurring instructional methods and language conventions employed in the classroom context. Their frequent presence underscores their pivotal role in shaping students' comprehension, participation, and proficiency in the respective subjects. Thus, analysing these instances provides a comprehensive exploration of the teaching strategies utilised, the linguistic structures employed, and the instructional goals pursued within mathematics and English language education.

Figure 1

KWIC-based frequency–dispersion plot of material process verbs in English and Mathematics classroom discourses



Term	Frequency	Rel. freq...	ARF (ave...	Range	Range %	CV (coeff...	Juillard's D	DP (devi...
add	37	2,119.25	18.87	1	100.00	0	NaN	0
added	7	400.94	3.56	1	100.00	0	NaN	0
allow	1	57.28	1.00	1	100.00	0	NaN	0
apply	1	57.28	1.00	1	100.00	0	NaN	0
arrive	1	57.28	1.00	1	100.00	0	NaN	0
attached	1	57.28	1.00	1	100.00	0	NaN	0
attempts	1	57.28	1.00	1	100.00	0	NaN	0
break	2	114.55	1.28	1	100.00	0	NaN	0
bring	4	229.11	3.08	1	100.00	0	NaN	0
calculated	2	114.55	1.77	1	100.00	0	NaN	0
came	3	171.83	1.81	1	100.00	0	NaN	0
cancel	5	286.39	3.79	1	100.00	0	NaN	0
carry	3	171.83	2.00	1	100.00	0	NaN	0
change	7	400.94	3.71	1	100.00	0	NaN	0
divide	54	3,092.96	17.16	1	100.00	0	NaN	0
find	41	2,348.36	19.98	1	100.00	0	NaN	0
give	59	3,379.35	34.75	1	100.00	0	NaN	0
minus	68	3,894.84	26.02	1	100.00	0	NaN	0

Examples:

- i) You can **give** me any number that the last number is an even number.
- ii) All these numbers, if you **divide** it by 4, you are going to get a whole number.
- iii) So, let that number be $n+2$, $n+3$, so **find** n now.
- iv) Let somebody **add** this one together.
- v) We should not **write** things that are out of context."
- vi) "Let somebody open to the passage and **read** for us. Listen as the passage is being read."
- vii) "You can **use** a full stop where necessary."
- viii) "So, you will **go** through the passage

Examples i to iv above show some of the usages of material processes in the course of teaching and learning Mathematics in the classroom. In example i, the teacher instructs students to physically provide numerical values that meet a specific criterion—having an even last digit. This action involves the tangible presentation of numbers, characteristic of material processes in mathematics. Students engage in a concrete activity of offering numerical values, demonstrating their understanding of the given condition. In example ii, students are asked to perform a division operation on a set of numbers. Physically dividing the numbers with 4, students engage in a tangible mathematical operation resulting in whole numbers. This action demonstrates the practical application of division,

highlighting the material aspect of mathematical processes. Such instructions also scaffold procedural fluency, reinforcing students' ability to apply mathematical rules in problem-solving contexts. Similarly, in example iii, the teacher tasks the students with determining the value of a variable ("n") based on given expressions involving "n+2" and "n+3." This involves physically manipulating mathematical symbols and expressions to arrive at a solution. Students engage in a tangible process of identifying the numerical value of "n," demonstrating their understanding of algebraic concepts through material actions. Here, material processes not only drive symbolic manipulation but also serve as a bridge to abstract reasoning in algebra.

Furthermore, in example iv, the teacher assigns the task of performing addition to someone in the class, involving the physical combining of numerical values to find the sum. This concrete activity of adding numbers demonstrates the material aspect of mathematical processes, as students engage in tangible manipulation of numerical quantities to arrive at a solution. Through such tasks, the teacher positions students as active participants in constructing mathematical knowledge rather than passive recipients. On the other hand, in the English language classroom, these material processes are deployed to build language skills. In example v, the skill of writing is emphasised through the teacher. The directive encourages students to physically engage with language and produce coherent and relevant written content. This hands-on approach to writing instruction highlights the material nature of the writing process, as students actively manipulate language to convey meaning effectively within the given parameter. Such practices strengthen students' written fluency and reinforce their ability to connect form with meaning.

In example vi, the teacher promotes active participation in the process of reading. Here, students are encouraged to interact with language in a tangible way as they visually decode written words and comprehend their meaning within the context of the passage. This hands-on approach to reading instruction underscores the material nature of reading as a physical activity that involves direct interaction with written text. This also situates reading as both an individual skill and a collaborative classroom practice, where shared oral reading builds comprehension and confidence. Similarly, in example vii, the teacher provides guidance on punctuation practice. This hands-on approach to punctuation practice highlights the material aspect of language usage, as students manipulate written symbols to enhance clarity and coherence in their written communication. Through direct application of punctuation rules, students develop a deeper understanding of language mechanics and refine their written expression. Here, material processes guide students toward mastery of technical accuracy, which supports higher-order skills like composition and argumentation.

Finally, in example viii, the teacher's directive for students to "go through the passage" highlights the material process of "go." Physically navigating through the written text, students actively engage in the process of text exploration and analysis. Students are encouraged to interact directly with the passage as they visually scan for difficult words and actively participate in the discussion. This hands-on approach to text engagement underscores the material nature of reading as a physical activity that involves direct interaction with written material. Through active engagement with the text, students deepen their comprehension skills and develop a deeper understanding of language structures and content. Such strategies also build independent reading habits, equipping students with transferable skills for lifelong learning.

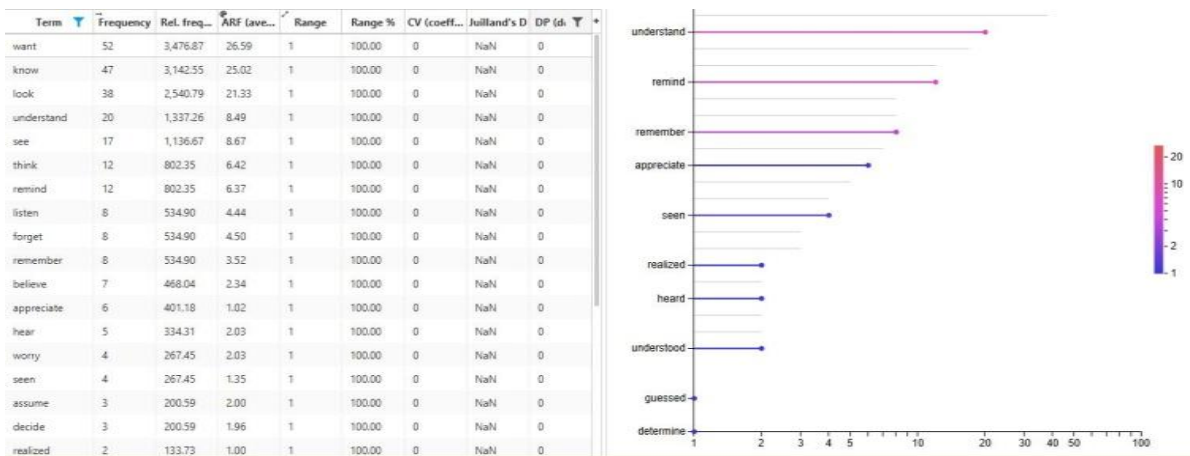
Generally, while the specific material processes employed in the English language classroom differ from those in mathematics, both subjects emphasise active engagement, manipulation, and interpretation within their respective domains. Material processes in the English language classroom focus on language composition, communication, and textual comprehension, while those in mathematics focus on numerical computation, problem-solving, and mathematical analysis. Despite these differences, both subjects aim to empower students to become active participants in their learning journey and develop essential skills for effective communication and problem-solving. This underscores that material processes are not merely linguistic forms but pedagogical tools through which teachers structure participation, guide cognitive engagement, and align instruction with subject-specific learning goals.

3.2 Mental Processes Analysis in the Classroom Discourses

Understanding the intricacies of mental processes within classroom discourse is paramount for elucidating the cognitive mechanisms underlying student learning and instructional practices. In both mathematics and English language classrooms, mental processes serve as the cognitive scaffolding through which students navigate complex academic tasks, make sense of instructional content, and develop critical thinking skills. This section delves into the analysis of mental processes observed within classroom interactions, hemm examples from a corpus of educational discourse where each instance occurs at least 20 times. As shown in Table 1, mental processes appear more frequently in English classrooms (11.5%) than in mathematics (8.4%), suggesting that English discourse privileges comprehension and reflection, while mathematics discourse foregrounds procedural application. The distribution and recurrence of these processes were identified through KWIC concordance outputs below, which map the frequency and dispersion of mental process verbs across subject contexts.

Figure 3

KWIC-based frequency–dispersion plot of mental process verbs in English and Mathematics classroom discourses



Term	Frequency	Rel. freq...	ARF (ave...	Range	Range %	CV (coeff...	Juillard's D	DP (devi...
assume	4	229.11	3.00	1	100.00	0	NaN	0
believe	3	171.83	2.23	1	100.00	0	NaN	0
confused	1	57.28	1.00	1	100.00	0	NaN	0
consider	2	114.55	1.46	1	100.00	0	NaN	0
decide	8	458.22	3.14	1	100.00	0	NaN	0
enjoy	1	57.28	1.00	1	100.00	0	NaN	0
interpret	1	57.28	1.00	1	100.00	0	NaN	0
interpret	16	916.43	5.78	1	100.00	0	NaN	0
interpreted	3	171.83	2.11	1	100.00	0	NaN	0
know	36	2,061.97	19.73	1	100.00	0	NaN	0
listen	21	1,202.82	8.67	1	100.00	0	NaN	0
prefer	2	114.55	1.00	1	100.00	0	NaN	0
remember	5	286.39	2.71	1	100.00	0	NaN	0
remind	1	57.28	1.00	1	100.00	0	NaN	0
see	15	859.16	9.69	1	100.00	0	NaN	0
think	12	687.32	5.65	1	100.00	0	NaN	0
understand	19	1,088.26	9.06	1	100.00	0	NaN	0
want	70	4,009.39	39.68	1	100.00	0	NaN	0

Examples:

- i) You **know** that minus with the law number 2 is already carrying another minus.
- ii) Now **listen** to me.
- iii) If you **want** to get a triangle...
- iv) But then, **look** at the word in italics, the underlined aspect; they perform the function of a noun phrase, just as He has....
- v) Is there anything you cannot **understand** from the passage?

In the context of the selected mathematics classroom, and within the transitivity system framework, the mental process of "knowing" involves the cognitive realisation or awareness of information previously learned or understood. Example (i) reflects the students' cognitive recognition and comprehension of a mathematical concept, specifically the application of a mathematical law. The phrase "You know" indicates the teacher's assumption of the students' existing knowledge or understanding of a particular mathematical law. Guiding the students' thought process and prompting them to recall the relevant mathematical rule facilitates the development of conceptual understanding and problem-solving skills. Also, in the second example, the teacher employs the mental process 'listen'. The mental process of directing attention involves the teacher's intentional effort to shift the students' focus toward specific tasks. In this case, it signals the importance of actively listening and paying attention to the forthcoming explanation or task instructions. This process, which also serves as a directive, is deployed to establish authority within the classroom discourse, reinforcing the teacher's role as facilitator of learning.

Furthermore, in the third example, the teacher employs the mental process 'want' to guide students in their problem-solving approach. Here, it establishes a clear learning goal for the task, as students are prompted to consider their objective of obtaining a triangle. It also enhances students' motivation through their desire to achieve a specific outcome. This motivation encourages active engagement in the learning process. The desire functions as a catalyst for problem-solving efforts, motivating students to persevere and seek solutions that lead to the desired outcome. In the selected English language discourses, the mental process 'look' in example (iv) prompts students to engage with specific linguistic elements in the text, such as words in italics or underlined aspects. The teacher encourages them to visually examine and analyse these features. This activity serves two main purposes: enhancing reading

comprehension and fostering linguistic analysis skills. It also encourages students to analyse language structures and syntactic patterns, deepening their understanding of grammar and sentence construction, while promoting self-directed learning and empowering them to take ownership of their comprehension process.

Similarly, in example (v), the mental process ‘understand’ is evident as the teacher encourages students to reflect on their understanding of the text and identify any areas of difficulty or confusion. Students are invited to consider whether there are concepts, words, or phrases within the text that they find challenging to comprehend. The question functions as a formative assessment tool, allowing the teacher to gauge comprehension and identify areas where additional support or clarification may be needed. Taken together, these examples demonstrate that mental processes are central to scaffolding comprehension, sustaining attention, and encouraging metacognitive reflection. They also highlight subject-specific orientations: Mathematics emphasises recall and problem-solving effort, while English emphasises analysis and interpretation. This supports the argument that transitivity choices mirror the cognitive demands of each discipline.

3.3 Verbal Processes in the ESL Classroom Discourses

In the context of classroom discourse, verbal processes are essential tools for effective communication between teachers and students, shaping the learning experience and facilitating understanding. One fundamental verbal process frequently observed in classroom interactions is quoting, which involves reproducing, referencing, or citing someone else's words or statements. In this section, we will explore how verbal processes, particularly quoting, are utilised in classroom settings through various examples extracted from our corpus. These examples provide valuable insights into how teachers employ quoting to communicate information, provide guidance, and reinforce learning objectives within the classroom environment. Table 1 shows that verbal processes are more prominent in English classrooms (12.4%) than in mathematics (7.4%). This suggests that English discourse depends more heavily on communication practices such as repetition, explanation, and referencing, whereas mathematics discourse is more action- and result-oriented. The distribution of these processes was further examined through KWIC concordance outputs below, which highlight their recurrence and contextual deployment across both classroom settings.

Figure 4

KWIC-based frequency–dispersion plot of verbal process verbs in English and Mathematics classroom discourses

Term	Frequency	Rel. freq...	ARF (ave...	Range	Range %	CV (co...	Juillard's D	DP (devi...+
answer	44	2,520.19	21.03	1	100.00	0	NaN	0
say	40	2,291.08	21.66	1	100.00	0	NaN	0
ask	27	1,546.48	14.41	1	100.00	0	NaN	0
said	26	1,489.20	16.92	1	100.00	0	NaN	0
told	15	859.16	6.62	1	100.00	0	NaN	0
tell	14	801.88	7.43	1	100.00	0	NaN	0
call	7	400.94	4.93	1	100.00	0	NaN	0
talk	7	400.94	5.01	1	100.00	0	NaN	0
repeat	6	343.66	3.92	1	100.00	0	NaN	0
called	2	114.55	1.92	1	100.00	0	NaN	0
define	1	57.28	1.00	1	100.00	0	NaN	0
spoken	1	57.28	1.00	1	100.00	0	NaN	0
talked	1	57.28	1.00	1	100.00	0	NaN	0

Term	Frequency	Rel. freq...	ARF (ave...	Range	Range %	CV (coeff...	Juillard's D	DP (devi...+
answer	12	802.35	7.36	1	100.00	0	NaN	0
answers	1	66.86	1.00	1	100.00	0	NaN	0
ask	13	869.22	6.12	1	100.00	0	NaN	0
asked	5	334.31	2.56	1	100.00	0	NaN	0
call	20	1,337.26	6.70	1	100.00	0	NaN	0
called	8	534.90	4.70	1	100.00	0	NaN	0
discuss	10	668.63	1.45	1	100.00	0	NaN	0
discussed	1	66.86	1.00	1	100.00	0	NaN	0
imply	1	66.86	1.00	1	100.00	0	NaN	0
murmuring	5	334.31	2.81	1	100.00	0	NaN	0
narrate	1	66.86	1.00	1	100.00	0	NaN	0
pronounce	4	267.45	1.83	1	100.00	0	NaN	0
quoted	1	66.86	1.00	1	100.00	0	NaN	0
read	32	2,139.61	11.48	1	100.00	0	NaN	0
repeat	6	401.18	5.26	1	100.00	0	NaN	0
repeats	1	66.86	1.00	1	100.00	0	NaN	0
said	21	1,404.12	11.40	1	100.00	0	NaN	0
say	44	2,941.96	24.09	1	100.00	0	NaN	0

Examples:

- i) "They will just **say** that the variance of the set of data is 16.4."
- ii) "Though, like I **said**, they may **ask** you to use a particular method, please try to use that method."
- iii) "Like you have been **told** before, your salutation could be dear sir or dear ma."

In the mathematics discourse, example (i) above, the verb 'say' functions as a verbal process when used in reported speech. In this context, it involves reproducing or reporting the earlier statements made as part of the content of past exam questions. The teacher uses it to relay information about how the variance of a data set is typically presented in JAMB questions. This does not merely inform students of exam conventions but also signals the practical relevance of classroom learning to high-stakes testing, thereby shaping their preparation strategies. Similarly, in example (ii), the teacher reproduces or references previous statements made, indicated in the phrase like I said. In this context, the teacher reaffirms previous information shared with the students. This serves two pedagogical purposes: reinforcing memory through repetition and emphasising the authority of prior instructions. Reintroducing earlier guidance strengthens the continuity of knowledge across lessons and signals that the information carries enduring importance. Furthermore, in the verb ask, the teacher references the possibility of examiners instructing students to utilise a specific problem-solving method. Here, verbal processes are deployed to construct imagined scenarios that prepare students for assessment conditions, training them to anticipate and respond to institutional demands.

Lastly, the verbal process 'told' in example (iii) serves to quote or report the previous instruction, reinforcing the importance of the salutation format for a letter and guiding the students in their current task. This verbal process is also essential in the classroom, as it ensures that students are reminded of important instructions and guidelines for their tasks, promoting clarity and understanding in the learning process. The analysis shows that verbal processes not only transmit content but also reinforce authority, prepare students for institutional assessment, and socialise them into disciplinary conventions. The higher frequency in English classrooms aligns with the communicative focus of language instruction, while the lower frequency in mathematics underscores its reliance on material and relational processes.

3.4 Relational Processes in the ESL Classroom Discourses

In the context of classroom discourse, relational processes play a crucial role in describing and understanding the relationships that exist between different elements within the learning environment. These processes allow us to analyse and explain the connections, attributes, and identities of participants in language, conveying possession, qualities, and classifications effectively. Relational processes like the verbs "having" and "being" enable educators to articulate relationships, attributes, and identities within the classroom context effectively. They provide a structured framework for describing the dynamic interactions and connections between various elements in the learning environment. Also in Table 1, relational processes are highly prominent in both mathematics (40%) and English (34.3%) classrooms. Within these, "being" occurs more frequently than having in both subjects, suggesting that classroom discourse relies heavily on describing states, qualities, and attributes rather than possession. The KWIC outputs presented below further illustrate how these relational verbs are distributed and patterned across the classroom corpora.

Figure 5

KWIC-based frequency–dispersion plot of relational process verbs in English and Mathematics classroom discourses

Term	Frequency	Rel. freq...	ARF (ave...	Range	Range %	CV (coeff...	Juillard's D	DP (devi...+
am	13	869.22	7.72	1	100.00	0	NaN	0
are	175	11,700.99	96.51	1	100.00	0	NaN	0
been	17	1,136.67	8.72	1	100.00	0	NaN	0
being	7	468.04	3.25	1	100.00	0	NaN	0
had	6	401.18	3.02	1	100.00	0	NaN	0
has	26	1,738.43	14.65	1	100.00	0	NaN	0
have	157	10,497.46	88.84	1	100.00	0	NaN	0
is	438	29,285.91	263.72	1	100.00	0	NaN	0
located	4	267.45	1.11	1	100.00	0	NaN	0
was	11	735.49	6.75	1	100.00	0	NaN	0

Term	Frequency	Rel. freq...	ARF (ave...	Range	Range %	CV (coeff...	Juillard's D	DP (devi...+
am	45	2,577.47	27.46	1	100.00	0	NaN	0
are	226	12,944.61	138.29	1	100.00	0	NaN	0
be	133	7,617.85	73.62	1	100.00	0	NaN	0
been	4	229.11	2.64	1	100.00	0	NaN	0
being	1	57.28	1.00	1	100.00	0	NaN	0
had	2	114.55	1.26	1	100.00	0	NaN	0
has	11	630.05	6.52	1	100.00	0	NaN	0
have	188	10,768.09	111.39	1	100.00	0	NaN	0
was	8	458.22	4.53	1	100.00	0	NaN	0
were	8	458.22	6.29	1	100.00	0	NaN	0

Examples:

- i) And I told you that stress **is** laying emphasis on a particular syllable or a word when you're pronouncing it.
- ii) Under measure of central tendency, they **are** just three.
- iii) An irregular polygon **has** sides and angles that are not equal.

In example (i), the verb "is" functions as a relational process of being. It relates the subject stress to its quality or characteristic, indicating what stress is. The sentence "stress is laying emphasis on a particular syllable or a word when you're pronouncing it" establishes the state or condition of stress. Here, "is" defines or describes the nature of stress, indicating that it involves laying emphasis on a particular syllable or word during pronunciation. The relational process "is" helps to clarify the concept of stress for the students, defining it as the act of laying emphasis on specific syllables or words during pronunciation. This shows how relational verbs are not only grammatical features but also powerful instructional tools that allow teachers to simplify abstract linguistic concepts and connect them to students' practical experience of pronunciation. Similarly, in example (ii), the verb "are" is establishing a relationship between the subject "they" and the complement "just three". The subject "they" refers to the measures of central tendency, while "just three" indicates the number of measures. This relational process "are" helps define and categorise the measures of central tendency, providing clarity and structure to the explanation. Here, the use of a relational verb supports students in organising mathematical knowledge into manageable categories, reinforcing conceptual clarity and aiding recall during problem-solving.

Finally, in example (iii), the verb has functions as a relational process of having. In this context, it denotes possession, indicating that irregular polygons possess sides and angles that are not equal. It highlights the defining characteristic of irregular polygons, which is the inequality of their sides and angles. Through this relational process, the teacher effectively conveys essential information about the attributes of irregular polygons, providing clarity and understanding to the students. This demonstrates how relational verbs in mathematics are used to assign defining properties, guiding students to identify, classify, and distinguish mathematical shapes and concepts with precision.

Table 2

Percentage of relational processes in Mathematics and English classroom discourses

Relational processes	MathsCD		EnglishCD	
	Frequency	Percentage	Frequency	Percentage
"being"	894	81.6	644	75.8
"having"	201	18.4	206	24.2
TOTAL	1095	100	850	100

From the results above, two verbs were identified: "being" and "having." In the mathematics classroom discourse (MathsCD), "being" represents 81.6% of all relational processes identified, while "having" constitutes 18.4% of relational processes in the mathematics classroom discourse. Also, in the English classroom discourse (EnglishCD), "being" accounts for 75.8% of all relational processes identified, and "having" is 24.2% of relational processes in the English classroom discourse. The higher frequency of "being" compared to "having" in both mathematics and English classroom discourses can be attributed to the nature of the language used in ESL classroom contexts. "Being" is commonly used to describe states, qualities, or conditions of the participants in the discourse. In this context, it is frequently used to describe attributes, qualities, or states of the subject matter, concepts, or things. In mathematics, it is often used to describe concepts, while in English, it is deployed to describe situations and the state of being. So, while the verb "have" is still important in classroom discourse, it may be used less frequently compared to "being", as the focus in the classroom contexts often revolves around describing states, qualities, or conditions rather than possession or ownership. Therefore, the higher frequency of "being" compared to "having" in both mathematics and English classroom discourses may be reflective of the emphasis on describing states, qualities, and conditions of the subject matter and participants within the learning environment.

3.5 Behavioural Processes in the ESL Classroom Discourses

In the classroom discourses, behavioural processes offer insights into overt actions and behaviours expressed through language. These processes enable the observation and investigation of psychological and physiological behaviours by encapsulating the external manifestations of internal cognitive and physiological workings. In the context of classroom discourses, behavioural processes play a crucial role in understanding students' actions, reactions, and responses, providing valuable insights into their engagement, comprehension, and learning experiences. Let's consider a few instances in the corpus.

Examples:

- i) T: **Clap** him
- ii) Look at the question. The question is different. I did not give you question $n - 2 + 2$. We are **trying** to solve to get n . Not $n - 2$, ...Have I manipulate anything?

In the given classroom discourse, the verb "clap" is used as a behavioural process to acknowledge and appreciate a student's response. When Ajobo provides an answer, the teacher responds with "Clap him," prompting the other students to applaud Ajobo's contribution. This action serves as positive reinforcement for Ajobo's participation and correct response, encouraging active engagement in the learning process. Through this behavioural process, the teacher reinforces a supportive and encouraging classroom atmosphere, motivating students to participate and engage in the lesson. This shows that behavioural processes are not just isolated actions but integral to how teachers build community, establish norms of participation, and promote inclusivity in the classroom. In this context, the behavioural process "trying" reflects the students' attempt to solve the problem by applying a particular method or technique. The teacher emphasises that they are trying to solve for the value of "n" and not manipulating any other variables. The process of "trying" in this instance represents the visible action of making an effort to solve the problem by applying the appropriate mathematical rules and techniques. It demonstrates the students' engagement with the problem-solving process and their active participation in finding the solution. The teacher's clarification reinforces the importance of following the correct method and approach to arrive at the desired answer, highlighting the behavioural aspect of problem-solving in the classroom.

Meanwhile, the limited instances of behavioural processes in the analysed classroom discourses can be attributed to the nature of the discourse itself. Classroom interactions primarily revolve around instruction, explanation, and problem-solving, where the focus is more on verbal and mental processes rather than behavioural ones. In classroom discourse, the teacher is mainly engaged in explaining concepts, providing instructions, and guiding students through problem-solving processes. This emphasis on instruction and explanation leads to a higher frequency of verbal and mental processes rather than behavioural ones.

Moreover, the context of classroom settings, particularly in the examples analysed, is centred around mathematical problem-solving and English language learning. In such contexts, the priority is to convey information effectively, explain concepts clearly, and facilitate learning, which are mainly achieved through verbal and mental processes. While behavioural processes do occur in classroom discourse, such as clapping in response to correct answers, they are relatively fewer in number compared to verbal and mental processes. The focus on instruction and problem-solving activities contributes to the limited occurrence of behavioural processes in classroom discourse. Nevertheless, their presence, though minimal, is significant because it highlights how teachers manage classroom affect, maintain discipline, and encourage active participation, all of which are crucial for sustaining engagement and enhancing the overall learning experience.

3.6 Existential Processes in the ESL Classroom Discourses

In the context of classroom discourse, existential processes refer to linguistic structures used to indicate the existence, occurrence, or presence of an entity or a state of being. These processes often use verbs such as "become", "appear", "seem", and "occur" to express changes, transformations, or the mere existence of something within the learning environment. Existential processes serve to establish the presence or transformation of a particular state or condition, often highlighting the transition from one state to another.

Example:

So, if you want this $-x$ to become positive, all you need to do is...

In this sentence, the verb "become" functions as an existential process. The verb describes a change of state or transformation, indicating that the variable " $-x$ " will change from a negative to a positive value. This is a key aspect of existential processes: they are concerned with states of being and changes in those states. However, since classroom discourses often revolve around actions and instructions (e.g., solving problems, following procedures, performing experiments), existential processes, which focus on the existence or state of being, are less common because the primary goal in classrooms is often to perform actions, understand relationships, or process information mentally. The need to merely state the existence or transformation of something is less frequent compared to other processes.

4.0 CONCLUSION

In conclusion, this study provides a nuanced examination of transitivity processes within ESL classroom discourse, highlighting their varying roles and implications for educational practices. Material and relational processes emerge as central themes, emphasising practical application and the establishment of conceptual relationships in both English language and mathematics education. These processes underscore the importance of hands-on learning experiences and relational thinking in fostering deeper understanding among students. Also, verbal processes, crucial for communication, are notably more pronounced in English classrooms compared to

mathematics, reflecting the different communicative demands of these subjects. Meanwhile, mental processes, focusing on cognitive activities such as thinking and understanding, play integral roles across both subjects, underscoring the cognitive engagement required for effective learning. The minimal presence of behavioural and existential processes suggests a lesser emphasis on behavioural actions and existential states in ESL classroom interactions. This observation prompts considerations about the alignment of instructional strategies with the cognitive, communicative, and relational needs of ESL learners. Beyond these descriptive findings, the study highlights that the distribution of transitivity processes reflects deeper pedagogical choices that shape how students engage in learning, whether as passive recipients, active participants, or reflective thinkers. This offers an analytical framework that moves beyond counting processes to showing how language use directly mediates teaching effectiveness and student learning outcomes.

Educators can leverage these insights to enhance teaching methodologies by integrating more diverse instructional approaches that cater to a broader spectrum of student learning preferences and needs. Specifically, teachers can design classroom activities that explicitly engage students in these processes to foster higher-order thinking and communication skills. The implications of this study extend to curriculum design and teacher training programs, where heightened awareness of transitivity processes can enhance instructional effectiveness and student engagement. Curriculum designers can incorporate exercises and texts that systematically balance material, relational, verbal, and mental processes to support experiential and reflective learning. Teacher training programmes can include modules on recognising and leveraging transitivity patterns to optimise classroom interactions.

Finally, future research could expand to include a larger and more diverse sample of classrooms across Nigeria or other ESL settings. Additionally, further studies could investigate the impact of explicitly integrating varied transitivity processes into teaching on measurable student learning outcomes or explore the interaction between transitivity patterns and student engagement across different subjects and grade levels.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

REFERENCES

- Ahmad, I., & Mohd Radzuan, N. R. (2015). EFL Teacher Perceptions of Error Correction in Grammar Teaching: A Case Study. *International Journal of Language Education and Applied Linguistics*, 3, 37–50. <https://doi.org/10.15282/ijleal.v3.474>
- Akinseye, T. A. (2017). Declarative Mood in teacher-students classroom interactions: a case of selected secondary school English language classroom discourses (ELCDs) and Mathematics classroom Discourses (MCDs) in Ibadan, Southwestern, Nigeria. *Lagos Papers in English Studies*, 6, 149 – 174.
- Akinseye, T. A. (2024). Critical discourse analysis of language and power in selected secondary school mathematics classroom discourses in Ibadan, Nigeria. *EKSU Journal of Education*, 11(1), 139-151.
- Alhumsi, M. H. (2024). Transitivity analysis of an academic document: A case of English course syllabi at Saudi Electronic University. *Pakistan Journal of Life & Social Sciences*, 22(2), 14757–14780. <https://doi.org/10.57239/pjlss-2024-22.2.001062>
- Al-Nasrawi, R. D. S. (2023). Transitivity system in two selected literary texts: A discourse analysis study. *Journal of Human Sciences*, 14(2), 1872-1912. <https://doi.org/10.33855/0905-030-002-059>
- Anis Nadiah, C. A. R. (2024). The portrayal of women: A corpus analysis of the representation around the word 'wanita' in the Malaysian Hansard Corpus. *GEMA: Online Journal of Language Studies*, 24(4), 149–172. <https://doi.org/10.17576/gema-2024-2404-09>
- Arnold, Novianto, Z., Nugraha, S. I., & Wachyudi, K. (2022). Exploring transitivity system used in students' recount texts at Islamic boarding school. *Edumaspul: Jurnal Pendidikan*, 6(2), 1714–1722. <https://doi.org/10.33487/edumaspul.v6i2.4370>
- Bloor, T., & Bloor, M. (1995). *The functional analysis of English: A Hallidayan approach*. Arnold.
- Christie, F. (2002). *Classroom discourse analysis: A functional perspective*. Continuum.
- Degboro, O. D., & Onipede, F. M. (2022). Transitivity analysis of practical instructions in selected Nigerian senior secondary school's biology textbooks. *Integrity Journal of Education and Training*, 6(5), 114-119. <https://doi.org/10.31248/ijet2022.142>
- Eggs, S. (2004). *An introduction to systemic functional linguistics* (2nd ed.). Continuum.
- Elsie, K. F., Adnyani, N. L. P. S., & Suarnajaya, I. W. (2020). Transitivity analysis of students' recount texts. *Jurnal Pendidikan Bahasa*, 9(1), 20. <https://doi.org/10.31571/bahasa.v9i1.1681>
- Fajriah, Y. N. (2021). Are your ideas represented in your texts? Transitivity analysis of recounts texts. *Pesquisa Veterinaria Brasileira*, 4(1), 173–180. <https://doi.org/10.31980/eealjournal.v4i1.1296>
- Gerot, L., & Wignell, P. (1994) *Making sense of functional grammar*. Citeseer,
- Halliday, M. A. K. (1981). *Explorations in the function of language*. Edward Arnold.
- Halliday, M. A. K. (1985a). *An introduction to functional linguistics*. Edward Arnold.

- Halliday, M. A. K. (1985b). *An introduction to functional grammar*. Edward Arnold.
- Halliday, M. A. K. (1994). *Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold.
- Hatmanto, E. D., & Purwanti, E. (2020). Strategies in Teaching and Engaging the Millennial Generation. *International Journal of Language Education and Applied Linguistics (IJLEAL)*, 10(1), 81–88. <https://doi.org/10.15282/ijleal.v10.3945>
- Li, J., & Eryong, X. (2021). Criticality in world-class universities research: A critical discourse analysis of international education publications. *Educational Philosophy and Theory*, 53(12), 1257–1271. <https://philpapers.org/rec/LICIW>
- Mulyanti, W., & Wati, S. (2022). Transitivity system in narrative texts for junior high school. *Jurnal Pendidikan Edutama*, 9(1), 133-145. <https://doi.org/10.30734/jpe.v9i1.2252>
- Munalim, L. O. (2017). Mental processes in teachers' reflection papers: A transitivity analysis in systemic functional linguistics. *3L, Language, Linguistics, Literature*, 23(2). <https://doi.org/10.17576/3l-2017-2302-12>
- Rizkiani, F. (2022). *Transitivity analysis of reading texts in English textbook "English for Nusantara" used in Curriculum Merdeka*. [Master's thesis, IAIN Ponorogo].
- Utami, A. R., Munawwaroh, K., & Dinata, R. P. (2022). Transitivity analysis of students in writing recount text at tenth grade Senior High School 3 Jambi City. *Journal of English Language Teaching*, 6(1), 15–23. <https://doi.org/10.33087/jelt.v6i1.97>