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ARTICLES

Unpacking linguistic features in EFL textbooks using systemic functional linguistics: Transitivity, Mood, and nominal group structure analysis

Hieronimus Canggung Darong ^{a, *}, Maksimus Regus ^a

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Abstract. Systemic functional linguistics provides a systematic and comprehensive approach to examining language use, offering valuable information about the construction of meaning in the context of the experiential, interpersonal, and textual metafunctions. This framework can be used to examine linguistic features and discourse patterns of the EFL textbooks. This study analyzes the linguistic features that go into creating the metafunctions in question found in EFL textbooks using systemic functional linguistics. The study specifically focused on process types of Transitivity pattern, Mood structure, and nominal group structures. Data were taken from two secondary EFL textbooks published in 2013 by two Indonesian publisher from which samples of reading passages were chosen purposefully following the topic, genre and difficulty, and they were modified into clauses for analysis. After transitivity analysis, material process type was mostly used signifying a concern on tangible actions. Furthermore, the mood structure predominantly employs declarative structures, indicating comprehensible and direct information exchanges. Nominal group analysis indicates that T (Thing) and DT (Deictic Thing) types are frequently used, increasing vocabulary with physical references. The pedagogical implications of the linguistic features analysis provides tailored teaching-learning activities and the useful information for instructional design.

Keywords: systemic functional linguistics, transitivity, mood; nominal group, textbook.

Даронг Кангунг Ієронімуc, Регус Максімуc. Розкриття лінгвістичних особливостей у підручниках з англійської мови професійного спрямування за допомогою системно-функціональної лінгвістики: перехідність, спосіб дієслова та структурний аналіз іменних груп.

Анотація. Системно-функціональна лінгвістика забезпечує системний і комплексний підхід до вивчення мови в ужитку, пропонуючи цінну інформацію про конструювання значення в контексті емпіричних, міжособистісних і текстових

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метафункцій. Ця концепція може бути використано для вивчення лінгвістичних особливостей та дискурсивних патернів підручників з англійської мови професійного спрямування. У цьому дослідженні за допомогою системно-функціональної лінгвістики проаналізовано лінгвістичні особливості, які сприяють створенню метафункцій, що розглядаються у підручниках з англійської мови професійного спрямування. Дослідження зосереджено на типах процесів, пов'язаних із моделями перехідності, структурами способу та іменних груп. Матеріалом слугували два підручники для середньої школи, видані у 2013 році двома індонезійськими видавництвами. Із цих підручників було цілеспрямовано відібрано зразки уривків для читання відповідно до теми, жанру та рівня складності, які були модифіковані у речення для аналізу. Після аналізу перехідності, з'ясовано, що тип матеріального процесу переважно вживається для позначення фокусу на матеріальних діях. Крім того, у структурі способу переважають декларативні структури, що вказує на зрозумілий і прямий обмін інформацією. Аналіз іменних груп показує частовживаність типів T (Річ) і DT (Дейктивна річ), що збільшує словник з посиланнями на фізичні об'єкти. Педагогічне значення аналізу лінгвістичних особливостей полягає в тому, що він дає змогу адаптувати навчально-методичну діяльність і надає корисну інформацію для розробки навчальних матеріалів.

Ключові слова: системно-функціональна лінгвістика, перехідність, спосіб, іменна група, підручник.

Introduction

A textbook gives students a dependable and extensive source of information, which is essential for promoting independent learning. It provides a structured style that enables individuals to study different subjects on their own and gain knowledge and comprehension as they go through the material. Reading and understanding textual material stimulates learners to create their own independent knowledge as they use their cognitive skills to interpret the contained information. Therefore, although Vygotsky's theory highlights the need of social interactions in learning activities (Kožuh et al., 2015; Topçiu & Myftiu, 2015), it does not discount individuals' capacity to acquire knowledge on their own (Efendi et al., 2020; Reinders & Balçikanli, 2014). Learners are capable of using the resources at their disposal to conduct independent learning. One of the best examples of how individuals can independently generate information is through learning from a textbook. In this respect, textbook is an essential informational resource because they provide learners with a well-organized, structured source that they can peruse at their own pace. Reading and understanding textual material enables individuals to freely create knowledge by using their cognitive capacities to make sense of the text.

Despite the fact that social interactions remain essential, individuals can demonstrate their capacity to acquire new information autonomously in

certain situations, employing available resources for self-directed learning. In this respect, textbooks become essential resources that promote student independence by serving as the main sources of information and direction. Textbooks are widely recognized for supporting learning objectives, helping teachers organize lessons, and giving students direction. As such, they are essential parts of education and crucial for integrating teaching and learning processes, evaluating learning goals, providing essential information, and promoting meaningful learning experiences that are in line with learning goals (Widia et al., 2022; Xiang & Yenika-Agbaw, 2021; Limberg, 2016; Errington and Bubna-Litic, 2015; Rahimi & Hassani, 2012; Derakhshan, 2021). Additionally, textbooks support critical thinking and analysis, assisting students to autonomously interpret, challenge, and synthesize material (Nafisa et al., 2021). Textbooks with a well-thought-out framework enable students to select a learning path and develop transferable abilities that go beyond the classroom. In this sense, textbooks have a dual purpose within the constructivist framework, acting as both informational repositories and catalysts for the growth of independent and well-rounded learners. Briefly, textbooks are widely acknowledged as instructional tools that enable students to participate in self-directed learning, broadening their horizons and making a substantial contribution to the educational context.

Systemic Functional Linguistics (SFL) is beneficial for examining the English as a Foreign Language (EFL) textbooks. Recent studies have highlighted that SFL-based analyses are helpful in revealing registers, unique discourse patterns, and high lexical density while also shedding light on linguistic nuances and embedded ideological values. Following the ideas of SFL, classifying EFL textbooks as a distinct genre, teachers may comprehend them as customized teaching resources that frequently include interactive features for students (Pilar, 2013; Nagao, 2019; Emilia & Hamied, 2015; Imtihani, 2010). Meanwhile, the current study emphasizes the necessity of tailoring EFL textbooks to different learner types, taking into account linguistic and cultural differences as highlighted in the SFL framework, for a more inclusive learning context (Derakhshan, 2021). Adapting EFL textbooks to the aspects in question can create a more inclusive learning environment that meets individual needs, accommodates a variety of learning styles, and encourages cross-cultural understanding, ultimately increasing student engagement and language learning effectiveness. Finally, the integration of functional linguistics into the EFL textbooks analysis is suggested, with the illumination of genre and register features as highlighted by the SFL framework. The SFL analysis benefits researchers by helping them understand teachers' ability in designing learning resources that accurately depict language use in everyday situations,

guaranteeing a comprehensive and useful basis for proficient English communication (Hutasuhut & Harahap, 2021; Kadwa & Alshenqeeti, 2020; Troyan et al., 2022; Emilia & Martin, 2023; Jeong et al., 2011; Morton, 2023). In this regard, using SFL in textbooks analysis has the potential to improve pedagogical strategies for comprehensive language instruction by assisting teachers and textbook writers in making well-informed decisions about design.

Differently, Allen (2015), Nagao (2019), Yanto and Pravitasari (2023) emphasized the need for using multimodal texts in EFL textbooks. They emphasize the potential of multimodal features – which include audio, visuals, and interactive aspects – to accommodate a variety of learning styles and improve overall learning comprehension. They acknowledge the impact that these elements have on student engagement. Multimedia elements in EFL textbooks transcend traditional formats and create a dynamic and engaging learning experience that is in line with the modern educational strategies. The modern strategies in question should be constructed in such a way that they can create a stimulating and participatory environment, which in turn improves language learning (Knight, 2015). Meanwhile, Alyousef (2021), Dewi et al. (2018), Marfu'ah and Khristianto (2023), Martin (2020), and Troyan et al. (2022) emphasized communication competence by strategically incorporating grammatical structures that are in line with ideational and interpersonal functions under the SFL framework. Teachers' pedagogical approaches should consider the crucial role of grammatical structures to enable learners to accurately communicate meaning. In this regard, the scholars focused on the significance of grammatical competence and its direct impact in improving communicative competence, emphasizing a teaching strategy that unifies linguistic structures with meaningful language use. Parallel to this, Cheng (2023), Morton (2023), and Pereira (2022) examined how SFL affects language teaching and promotes the design of teaching-learning resources. Their research corroborates the idea that incorporating SFL into the development of instructional materials can improve language teaching (Zhang, 2019). Furthermore, Ariawan et al. (2023), Errington and Bubna-Litic (2015), Hajhosseini et al. (2016), and Sujatna and Kuswoyo (2023) emphasized the significance of including critical thinking elements in EFL textbooks and promote the use of an SFL-based framework in the assessment and learning resources modification. The SFL-based analysis is helpful for improving grammatical structures, multimodal elements, and critical thinking. It also helps to create instructional materials that are comprehensive and effective in meeting learners' needs.

Moving to the theory, SFL views language as a networked system, in contrast to transformational and structural traditions, and assigns meaning to

lexico-grammatical elements (Cordeiro, 2018; Darong, 2024; Davies, 2014; Eggins, 1994; Emilia & Martin, 2023; Halliday, 1985; Hasan, 2014; Martin & Zappavigna, 2019; Sun & Wang 2023; Wang and Zhou, 2018; Zhang 2019). With a focus on context-based language use and structured as a system of semiotic functions, SFL reveals the subtleties of linguistic patterns in instructional materials. The ideational/experiential function, which is realized by field, is linked to experiences, whereas the tenor category is more concerned with participant roles and building social relationships. Concurrently, the mode category makes writing coherent by supporting the textual function (Cheng, 2023; Miller, 2009; Montes et al., 2014; Sun & Wang, 2023; Wang & Zhou, 2018). Furthermore, Davies (2014), Eggins (1994), Halliday (1985), and Nagao (2019) draw attention to an important relationship between SFL and the register categories, showing how field, tenor, and mode collectively reflect the metafunctions of SFL inherently. The register category of field, tenor, and mode is realized through intentional linguistic choices that conform to the intended goal of communication, whether it be conveying information in a specific domain (field), creating interpersonal relationships (tenor), or structuring discourse for effective communication (mode). The relationship deepens our understanding of linguistic structures and their roles by exposing language as a dynamic, context-dependent tool.

Therefore, SFL serves as a significant analytical framework for analyzing EFL textbooks, particularly in three main metafunctions: ideational, interpersonal, and textual. In the ideational metafunction, textbooks carefully select vocabulary and content to reflect learners' experiences and promote understanding at various proficiency levels. In order to support learners' comprehension and expressive skills, grammatical constructions and lexical choices play a crucial role in scaffolding learners' understanding of the world (Anggriani et al., 2022; Malkawi & Fareh, 2023; Maya et al., 2020; Hanifa, 2018; Hermawati & Silvani, 2023; Jati & Somphithak, 2021; Hardiyanti et al., 2023). Meanwhile, the interpersonal metafunction places a strong emphasis on the social components of language, helping students navigate through tone, manners, and cultural nuances to facilitate successful communication (Pilar, 2013; Hasan, 2014; Siregar et al., 2021). Additionally, the textual metafunction focuses on logically structuring language, assisting students in crafting well-organized phrases and paragraphs (Farsani et al., 2022; Montes et al., 2014). In this context, EFL textbooks incorporate social interaction techniques and cultural competency into their interpersonal metafunction. Learners are exposed to a variety of interpersonal scenarios, which enhance their communicative ability. Concurrently, the textual metafunction emphasizes how language is organized, using cohesive strategies and example texts to help

students create coherent spoken and written texts. These metafunctions are essential for providing EFL students with the tools they need to communicate effectively in a variety of social and linguistic contexts (Kaneyasu, 2020; Bangsa & Doran, 2021; To, 2018; Yang, 2021; Fries, 2001).

Pushing further, using the clause rank from the transitivity pattern and the mood structure, the ideational and interpersonal metafunctions are thoroughly analyzed (Rajaeian et al., 2021; Andersen et al., 2018; Bakken & Bakken, 2021; Othman, 2020). The clause rank enables a thorough investigation of the ways in which instructional materials use language to represent experiences and portray social relationships. Teachers can understand the intricacy of expressing certain acts or feelings through transitivity, and mood offers information about the communication purpose of the content being provided (Hermawati & Silvani, 2023; Malkawi & Fareh, 2023; Darong, 2022a). Understanding the text's organization and prioritization of information is enhanced in textual function analysis, which can be through clause analysis or at the lower system such as nominal group structure analysis (Suryadewi et al., 2018; Daliman, 2019). Shifting from clause rank to group rank, particularly in analyzing the textual metafunction, is justified for its detailed advantages. The nominal group analysis in question enables a closer investigation of cohesive devices, syntactic and lexical decisions, and information structure. This approach provides insights into how the text accomplishes coherence, directs the reader, and successfully engages them. By emphasizing nominal group analysis, the text's stylistic and organizational elements can better be understood, leading to a more thorough interpretation of the textual metafunction (Damayanti, 2023). Saying it differently, in order to acquire successful communication skills, this integrated analysis provides a greater knowledge of how the ideational, the interpersonal, and the textual metafunctions operate in language teaching materials. Thus, by viewing language as an integrated system of lexico-grammatical elements, SFL departs from previous linguistic theories. To give language meaning, this theory emphasizes the development of distinct connections between grammatical systems and functions. Unlike conventional linguistic theories, SFL's framework highlights the complex relationships within language, enhancing linguistic analysis and promoting a more thorough comprehension of the subtle and useful nature of language structures (Andersen et al., 2018; Othman, 2020).

To date, using Halliday's Functional Linguistics, research on English as a Foreign Language textbooks has the potential to reveal the linguistic features reflected in ideational, interpersonal, and textual metafunctions. SFL analysis provides an understanding of how language functions in EFL textbooks, going beyond grammatical structures. This thorough examination can improve

language learning materials and make language learning more successful. In this respect, Pan and Zhu (2022) summarize the contributions of SFL to EFL textbook analysis; SFL is acknowledged as a suitable framework for scrutinizing the systemic functional properties. This acknowledgment places SFL as a significant tool for investigating the broader functional facets of language use in instructional materials, advancing our knowledge of linguistic characteristics and their function in achieving communication goals.

While previous studies have provided valuable insights into the utilization of EFL textbooks, there is a lack of studies examining important linguistic features from an SFL perspective, such as the transitivity pattern, mood system, and nominal group structure. Concern about linguistic features stems from the understanding that they serve significant roles in language teaching and learning experiences and as the basis for effective pedagogical interventions. Even with the new emphasis on functional language use, cultural and linguistic diversity, multimodal texts, and critical thinking abilities in EFL textbook design, there are still not enough SFL-based analyses available to inform these necessary changes. Thus, there is a clear research gap in EFL textbooks that has to be filled to improve language learning outcomes. This can be achieved through more SFL-based analysis. Questions arise to investigate this gap: What ideational, interpersonal, and textual functions are reflected in the transitivity pattern, mood system, and nominal group structure in EFL textbooks? What are the pedagogical implications of these linguistic features?

Method

This study belongs to a mixed-method design. A qualitative design emphasizing content and textual analysis for transitivity, mood, and nominal structure of the texts is used. Regarding the quantitative aspect, numerical data may come from counting occurrences of specific linguistic features, calculating proportions to identify patterns or differences across texts. To guarantee representative samples from different EFL publishers and proficiency levels, two secondary EFL textbooks published in 2013 by two Indonesian publishers, namely Nusa Ilmu and Horizon (Anonymity), were deliberately chosen. The publication year is still relevant due to its usage in the Indonesian context. It was a year with a notable publication of English textbooks widely adopted in the educational systems, making them representative samples of an analysis. Choosing to anonymize the data source is a strategic decision that serves multiple purposes. By protecting the privacy and intellectual property of publishers and authors, anonymizing the data source ensures that particular textbook titles, contents, and publishers are not singled out or scrutinized

individually. This method eliminates any potential prejudice or preconceived assumptions associated with particular publishers or textbooks, fostering a more impartial and universal analysis of EFL materials. Furthermore, anonymity encourages a focus on broader patterns, trends, and instructional strategies within the EFL education landscape. By keeping the data anonymous, researchers are able to draw important conclusions without attributing characteristics or weaknesses to particular publishers or textbooks. Anonymity improves the reliability and objectivity of the research findings and allows for a deeper understanding of the main ideas found in EFL textbooks.

The intention of choosing the textbooks in question was to capture a wide range of instructional resources, enabling a nuanced analysis that takes into account various viewpoints and pedagogies for general English EFL teaching. Since the textbooks are widely used, this planned selection guarantees that the study spans a range of skill levels and pedagogical practices, thereby contributing to a better understanding of the dynamics within EFL teaching at the senior high school level. In this respect, by providing a comparison of linguistic features, content design, and skill integration, the analysis of two EFL textbooks helps build innovative, learner-centered instruction. Although this analysis is helpful, teachers must adapt and go beyond the textbooks to ensure genuinely dynamic and successful EFL teaching practice. The decision to keep information about particular textbook titles and content providers anonymous highlights the need for a more comprehensive analysis of EFL materials rather than a focus on identifying individual publishers. This methodology facilitates a more impartial and broadly applicable examination of the principal themes and patterns found in EFL textbooks, hence ensuring the overall validity and relevance of the research outcomes (Eungoo & Hwang, 2023).

Considering a cost-effective, less time-consuming, simple operation (Golzar et al., 2012), four reading passages having the same achieved competence from selected textbooks were chosen using the convenience sampling technique, which formed part of the strategy planned to gather data for this study. Realizing the useful benefits of efficiency and accessibility in this method, the researchers modified the passages to clauses, enabling a more thorough linguistic analysis that aligns with the principles of SFL.

Based on the SFL theory developed by Halliday (1985) and Eggins (1994), the analysis concentrated on the passages' ideational/experiential, interpersonal, and textual metafunctions of language. Examining transitivity patterns, the mood system, and nominal group structure allowed the researchers to gain important insights into the language functions, cultural elements, and sociological dynamics included in EFL textbooks (see Table 1). In this context, a systematic analysis of language structure and function is required to identify

the transitivity pattern, mood system, and nominal group structure. Using the ideas of material, mental, and relational processes, transitivity patterns – which represent the participants and processes in a clause – are found by looking at the roles of actors, processes, and goals. Mood elements like Subject, Finite, and Predicator are identified in order to examine the mood system, which encodes the speaker’s attitude, modality, and message content. Additionally, the way language is employed in various settings to create meaning, transmit information, and carry out communicative tasks can be revealed by examining nominal group structure.

Table 1
Analytical Frameworks

Focus	Goal	Element analyzed
Transitivity	Identify the pattern	Processes, Participants, Circumstances
Mood	Identify moods pattern	Declarative, Imperative, Interrogative moods
Nominal group	Examine the Thing, Classifier, Epithet, Numerative, Qualifier, and Deictic	The usage of Thing, Classifier, Epithet, Numerative, Qualifier, and Deictic

Understanding the function of grammar and lexicogrammar in language, viewed as a social semiotic system, necessitates SFL. To determine the linguistic system of transitivity, mood, and nominal group in SFL, individuals must carefully analyze both the structural and functional components of language. This analysis is crucial to understanding the nuances of meaning and communication in a particular context.

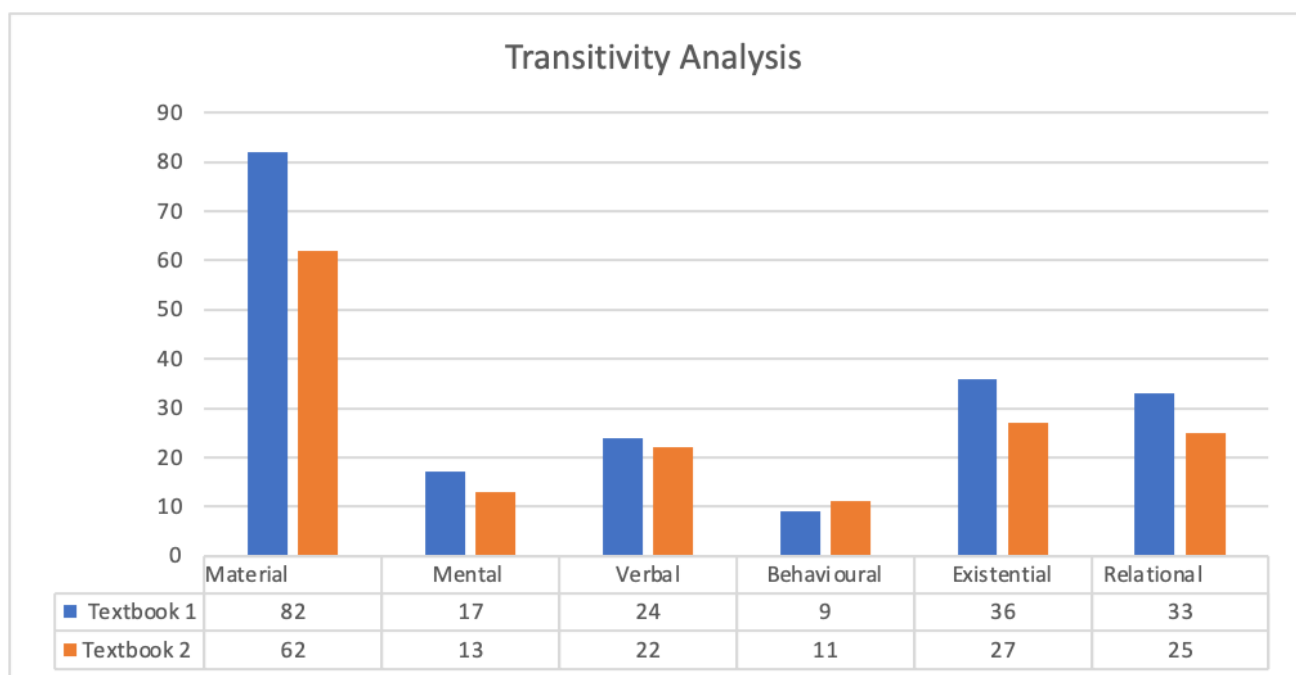
To improve the objectivity of the findings, the researchers conducted independent data analysis, ensuring that each researcher worked independently and without external interference. The goal of this strategy was to reduce any potential bias resulting from group thinking or shared perspectives. Subsequently, the results of independent analyses were systematically compared to determine the level of agreement. The researchers reached a high degree of agreement through the use of a well-defined coding system, frequent contact and discussion sessions, and the establishment of unambiguous criteria. The coding system focuses on the transitivity system, mood system, and nominal group. The first coding system covers process types, participants, and circumstances. The second covers mood types, modality, and mood block components. The last coding system covers structure and complexity. These procedures not only strengthened the objectivity of the

findings but also fostered teamwork, enhancing a meaningful level of agreement. An external, unbiased reviewer collaborated with the main coder to achieve a consensus, thus enhancing the objectivity of the results. The approach of the qualitative study follows the suggestions made by Nowell et al. (2017), emphasizing the need to create a traceable decision trail to increase the dependability and rigor of the analysis.

Results and Discussion

The SFL framework provides a strong lens for examining the ideational, interpersonal, and textual aspects of language functions in reading passages. This study explores the ideational, interpersonal, and textual functions realized through the register categories of field, tenor, and mode to reveal the complex ways in which language creates meaning in the chosen reading passages. As such, the researchers illuminate the subtle functions that contribute to the overall meaning of the reading passages in EFL textbooks by analyzing how linguistic features are used. In this regard, the analysis focused on the ideational, interpersonal, and textual functions of the reading passages with regard to the register categories of field, tenor, and mode. Figure 1 shows the results of the analysis for the two textbooks.

Figure 1
Transitivity Pattern



Data from two EFL textbooks (Figure 1) indicate that material processes, 82 for textbook 1 and 62 for textbook 2, are mostly used, followed by existential processes (36 for textbook 1 and 27 for textbook 2); and relational processes (33 for textbook 1 and 25 for textbook 2). This distribution shows that both textbooks place a high priority on using language in real-world contexts and depicting actual events and actions, as stated in Eggins (1994) and Darong (2022a). Material processes involve real actions performed by the actor. The significant prevalence of material processes (144) suggests an emphasis on practical language abilities, highlighting real-world applications. The incorporation of existential processes implies an endeavor to expand learners' vocabulary and increase their comfort level when communicating ideas related to identity and existence. Furthermore, the appearance of relational processes emphasizes the importance of teaching language structures that represent connections and relationships among constituents. The following examples depict the process types found in the textbooks.

Table 2
Material Process

The fisher man	went	to the seashore
Actor	Material Process	Location circumstance

Table 3
Existential Process

There was once	a man who lived with his wife	in a small hut close by the seaside
Existential Process	Existent	Location Circumstance

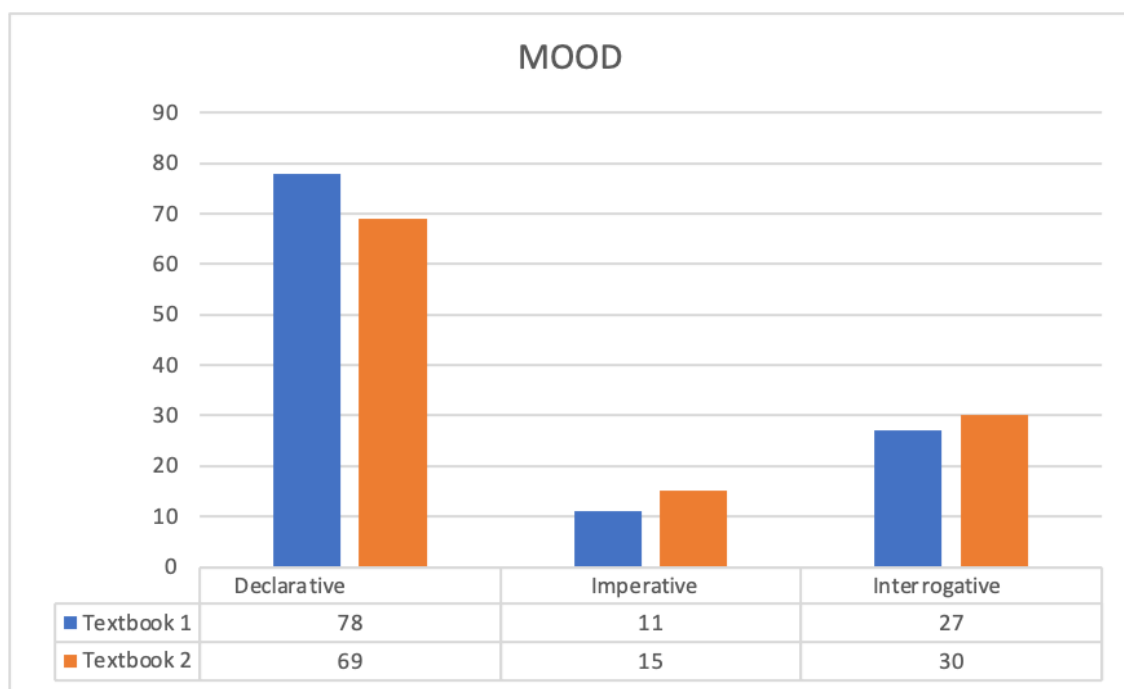
Table 4
Relational Process

At this thought	she	was	very angry
Location Circumstance	Carrier	Intensive process	Attribute

Overall, the ideational choices in these textbooks reflect a pedagogical strategy that emphasizes real-world communication, introduces basic vocabulary, and enhances students' comprehension of the connections between words in the

English language. These results corroborate previous studies conducted by Jati and Somphithak (2021) and Maya et al. (2020), who analyzed material processes in a corpus of English language teaching materials. In their studies, all researchers agreed that material processes were the most frequently used process type, followed by mental processes describing cognitive activity. The present study also aligns with the findings of Ellyawati et al. (2023), who identified material processes as the most common type in EFL textbooks. Although other process types—namely existential, relational, mental, verbal, and behavioral—have the potential to guide students’ language learning, the material process types identified in the study help students easily navigate real-world contexts, actual events, and actions.

Figure 2
Mood Analysis



Referring to the data in Figure 2, declarative sentences are predominantly used in both Textbook 1 (78) and Textbook 2 (69). This suggests that both textbooks prioritize providing facts and information. Furthermore, a significant number of interrogative sentences are used in both textbooks; however, Textbook 2 has a slightly higher frequency of these sentences, indicating a stronger focus on promoting inquiry and interactive participation. Both textbooks also include imperative statements, which are used to give directions or commands, with Textbook 2 containing more of these sentences than Textbook 1. This suggests that, while both textbooks provide instructions to some degree, Textbook 2

places greater emphasis on giving directions or instructions. In conclusion, the evidence points to a shared focus on declarative structures, with notable differences in the use of imperative and interrogative structures between the two textbooks. The following examples highlight the respective mood systems in question.

Table 5
Declarative mood

Technically	an earthquake (also known as tremor, quake or temblor)	is	a kind of vibration through the earth's crust.
Adjunct circumstance	Subject	Finite	Complement

Table 6
Interrogative

What	does	she	want	now?
Wh-Complement	Finite	Subject	Predicator	Adjunct

Table 7
Imperative

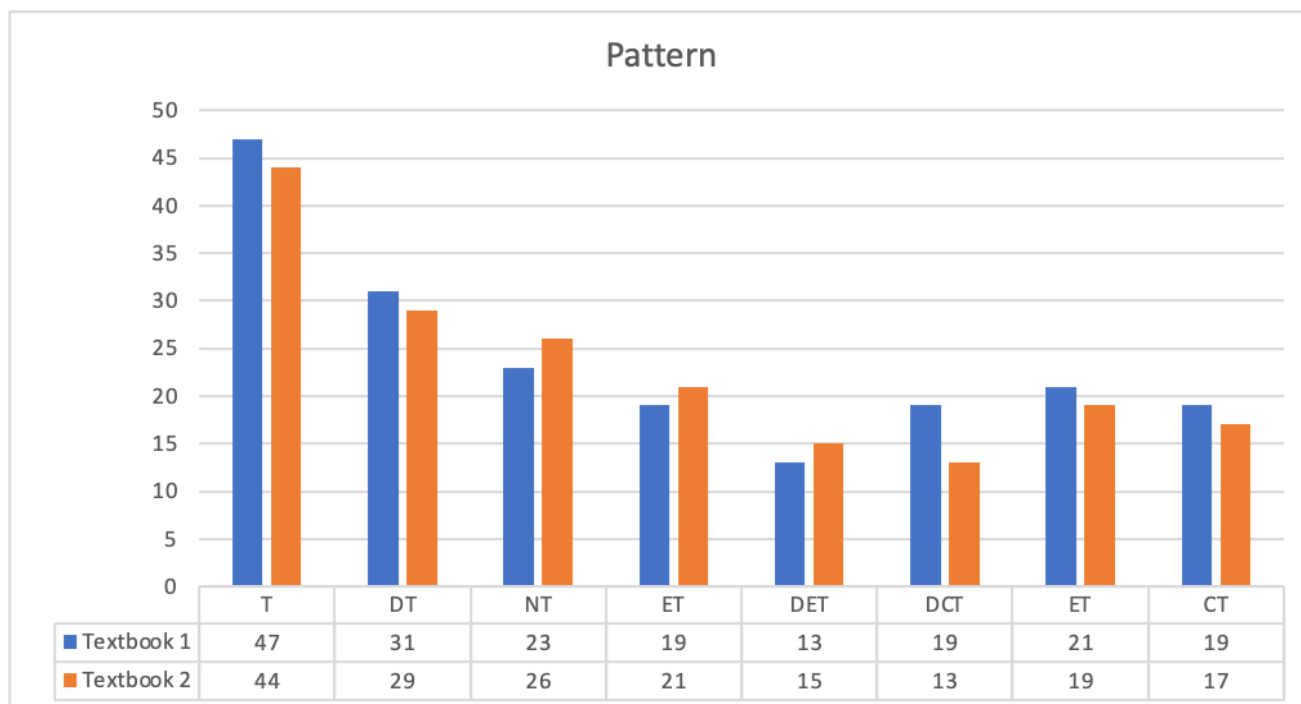
So	come forth and help	me
Adjunct	Predicator	Complement

These results are consistent with the findings of Yanto and Pravitasari (2023) and Darong (2024), who revealed a significant prevalence of declarative sentences in textbooks. Even though declarative constructions were widely used, interrogative sentences were often employed for elements like exercises and discussion questions (Table 6). However, the findings of the current study contrast with those of Ellyawati et al. (2023), who reported a frequent use of imperative statements in the Ecovacs Vacuum Robot Deebot Ozmo 920 manual. Nonetheless, it was discovered that different textbook series employed imperatives in subtle ways depending on textbook types, the degree of difficulty, and the topics discussed. This study emphasizes continuity with previous research by highlighting the widespread use of declarative sentences in the interpersonal function across various textbooks, including those

designed for English language instruction. Here, declarative structures are used to provide clarification and educate the reader.

Figure 3

Nominal Group Analysis (T: Thing; DT: Deictic Thing; NT: Numeric Thing; ET: Epithet Thing; DET: Deictic Epithet Thing; DCT: Deictic Classifier Thing; ET: Epithet Thing; CT: Classifier Thing)



Data on nominal groups taken from the selected passages are shown in Figure 3. In total, Thing (T) appears 91 times, Deictic Thing (DT) 60 times, Numeric Thing (NT) 49 times, and Epithet Thing (ET) 40 times. In addition to these patterns, other combinations also occur: Deictic Epithet Thing (DET) appears 28 times, Deictic Classifier Thing (DCT) 32 times, Epithet Thing (ET) 40 times, and Classifier Thing (CT) 36 times. The preponderance of "T" (Thing) and "DT" (Deictic + Thing) nominal group patterns in Textbooks 1 and 2 highlights a conscious inclination toward simplicity and clarity in the presentation of information. Two patterns that exemplify a focus on simple and direct nominal structures include the "T" pattern, which uses a single noun as the main element (Table 8), and the "DT" pattern, which uses a determiner and a noun (Table 9). The use of these linguistic features reflects a teaching strategy that places a high value on reading and comprehension, as illustrated in the following examples.

Table 8

T pattern

Earthquake
Thing (T)

Table 9

DT Pattern

The	Boat
Deictic (D)	Thing (T)
His	boat
Deictic (D)	Thing (T)

The textbooks' use of short and concise nominal groups is intended to enhance student learning by presenting material in an understandable and accessible manner. The frequent use of these patterns reflects a deliberate attempt to communicate information simply, thereby promoting comprehension and engagement with the instructional content of both textbooks. Additionally, the use of T and DT types is crucial for helping students describe objects accurately and expand their vocabulary. Furthermore, the widespread use of T and DT types in English textbooks suggests that the authors prioritize teaching students how to construct noun phrases – a critical component of English grammar.

From a bimodal bilingual perspective, Van Beijsterveldt and van Hell (2010) reached similar conclusions when analyzing lexical noun phrases (NPs) in narrative and expository EFL texts. They observed consistent patterns in the use of NP modifiers, NP-agreement errors, and omissions of required NPs among both proficiently signing deaf individuals and those with lower proficiency. The findings of their study support the claim made in the current research: English textbooks typically focus on teaching and using noun phrases, with T and DT types playing a key role in helping students construct them.

Apart from phrase constructions and vocabulary, the widespread usage of T (Thing) and DT (Deictic Thing) categories in English as a Foreign Language (EFL) textbooks indicates a clear preference for the spoken mode (Darong, 2022b). In Systemic Functional Linguistics (SFL), language is used to generate meaning in a variety of social contexts, and the choices made when selecting

linguistic features reflect communicative intents. Thing (T) types are commonly found in EFL textbooks because they align with the SFL principle of creating cohesive discourse. Additionally, by emphasizing Deictic Thing (DT) categories, students are better equipped to explore and communicate meaning in spoken discourse by pointing to or describing items in relation to the immediate context. From an SFL perspective, the predominance of T and DT types (Table 8 and Table 9) in EFL textbooks underscores a pedagogical focus on providing students with the linguistic tools needed for effective oral communication. This highlights the textbooks' commitment to helping students develop practical language skills for communicative contexts.

When viewed through the lens of SFL, the widespread use of material process types in textbooks suggests that language instruction places special emphasis on actions and concrete processes. This pedagogical approach prioritizes practical application, aiming to enable students to understand and communicate concrete actions and occurrences. The present study reflects the findings of Maya et al. (2020) and Dewi and Kurniawan (2018), who found that the consistent prevalence of material process types in the examined EFL textbooks indicated a purposeful preference for concrete objects and events over abstract notions. This choice helps students apply their language abilities to real-world situations, underscoring the importance of comprehending and communicating concrete actions and occurrences. Furthermore, the extensive use of declarative phrases (see Table 5) in the examined textbooks highlights a pedagogical focus on straightforward communication and unambiguous statement-making, particularly in terms of interpersonal function. This linguistic choice may be intended to suit academic or informational contexts where clarity is essential, equipping students with the tools to communicate clearly and coherently. The emphasis on informative language over persuasive or negotiative language in EFL instructional materials is supported by the findings of Emilia and Hamied (2015) and Linares and Xin (2020), who underscore the impact of EFL textbooks on language instruction, particularly regarding the clear and direct communication of information.

Regarding nominal groups, the findings align with previous studies that examined EFL textbooks using SFL-based methodologies. The results indicate that T- and DT-oriented nominal groups are frequently found in learning resources. In this context, Daliman (2019), Damayanti (2023), and Suryadewi et al. (2018) analyzed a corpus of academic textbooks from various subjects and discovered that one of the most commonly used grammatical structures was noun phrases. This suggests that nominal groups are a widely utilized tool in EFL textbooks to provide students with precise and comprehensive information. Furthermore, the increased prevalence of material process types

in the analysis can be attributed to the general use of nominal groups with a T and DT orientation, as these specific noun group types are often employed to distinguish concrete physical objects and actions. Thus, within the framework of SFL, the present study extends and validates previous findings about the linguistic elements and practical language use found in EFL textbooks.

To date, as highlighted by Jati and Somphithak (2021) and Maya et al. (2020), the majority of material process types used in the examined English textbooks indicate a purposeful emphasis on teaching language connected to actions and processes, particularly in formal and written contexts. For example, teachers often have students write or utter sentences emphasizing daily activities. Since the focus is on activities, students consequently use vocabulary related to actions. This has ramifications for language learning and teaching in several ways. First, the findings underscore the importance of developing language skills for describing procedures and behaviors. This involves equipping students with the tools to effectively communicate subtle details about how specific actions are performed through the use of verbs and adverbs (see Tables 2-4). Second, the results highlight the need to teach vocabulary associated with activities and processes, including technical or scientific terms required to explain mechanics or procedures. This suggests that language teachers should incorporate domain-specific vocabulary into their lesson plans to ensure students acquire the language skills necessary for effective communication in specialized fields. Lastly, the frequent presence of material process types in textbooks emphasizes the importance of improving writing skills, particularly in formal or technical writing. This indicates a teaching approach focused on helping students articulate their thoughts and present information in a structured and formal manner, aligning with the standards of academic and technical communication.

Teachers can leverage these implications for teaching and learning by incorporating focused activities into their curricula. For example, it may be helpful to design tasks that target the development of language skills related to actions and processes, such as creating sentences using appropriate verbs and adverbs. Teachers can also implement vocabulary-building exercises to introduce students to scientific and technical language. To help students enhance their written communication skills, teachers might assign structured writing projects that simulate formal or technical writing scenarios (Emilia & Hamied, 2015). While material process types are crucial for clear and concise communication of information, it is equally important for teachers to incorporate activities that promote the expression of emotions, opinions, and attitudes. This ensures a comprehensive language-learning process that encompasses a wide range of linguistic functions.

The considerable pedagogical implications are also evident in the use of declarative sentences. This pattern reflects a purposeful teaching strategy that emphasizes direct communication and facilitates a clear flow of information. These implications extend beyond language structure to the development of essential language skills. First, this linguistic tendency highlights the prioritization of clarity in communication within the instructional context. By emphasizing declarative statements, teachers implicitly promote a language style that values precision and direct expression. This approach not only addresses the communicative needs of language learners but also aligns with the broader concept of efficient language use in everyday contexts. Furthermore, given the prevalence of declarative statements (Martin & Zappavigna, 2019; Siregar et al., 2023), teaching should focus on enhancing students' ability to communicate facts and information accurately. Students are encouraged to express themselves in ways that convey information precisely while adhering to grammatical rules. This focus is particularly crucial for academic purposes, where accuracy and clarity are paramount.

The prevalence of declarative phrases in scholarly literature further underscores the importance of developing critical language skills. Acquiring the ability to understand and evaluate declarative structures is essential for effective academic engagement, as students frequently encounter them in scholarly texts. This highlights how language learning encompasses higher-order cognitive skills tied to linguistic structures. Beyond language itself, another layer of thought is involved in the explicit teaching of declarative statements. Teachers are encouraged to incorporate specific activities into their lesson plans, recognizing the significance of declarative statements in conveying information and factual claims (Yanto & Pravitasari, 2023; Siregar et al., 2021). Such tasks might include using a variety of linguistic forms, such as facts, opinions, descriptions, and explanations. Students who receive this type of explicit instruction are expected not only to identify declarative phrases but also to apply them appropriately in context.

Essentially, the goal of these all-encompassing instructional strategies is to provide students with a thorough understanding of the frequency of declarative sentences while also offering clear guidance on their use in various contexts. To enhance learners' overall language proficiency and communicative competence, these strategies aim to move beyond surface-level comprehension and foster a deeper connection between language structure, effective communication, and cognitive skills. Ultimately, the impact of emphasizing different material process types in English textbooks depends on the specific context and learning objectives. Striking a balance between functional language skills and a broader range of language functions ensures a comprehensive

approach to language learning, equipping students for adaptable and effective communication in diverse settings.

An SFL analysis of the common usage of T (Thing) and DT (Deictic Thing) in EFL textbooks highlights a purposeful instructional orientation toward concrete, tangible entities, emphasizing real-world applicability. This approach prioritizes teaching language in a way that helps students understand and express abstract linguistic concepts using real-world examples. The prevalence of T and DT types reflects a commitment to equipping students with the tools necessary to function and interact successfully in various authentic contexts, aligning with the communicative language teaching philosophy. However, it is important to recognize potential distinctions in the use of T and DT forms between spoken and written modes. The spoken mode requires more distinct language functions and structures than written declarative statements, often focusing on conversational abilities such as expressing ideas, making requests, and engaging in dialogue. A balanced teaching strategy must address the differing linguistic demands of spoken and written modes while acknowledging the importance of advanced language skills in each context. The primary goal remains to provide students with adaptable language skills that extend beyond the classroom, enabling effective and practical communication in a variety of written and everyday scenarios.

In conclusion, systemic functional linguistics, with its focus on material process types, declarative sentences, and T (Thing) and DT (Deictic Thing) forms, serves as a valuable framework for analyzing EFL textbooks. Its functional and systemic approach provides insights into contextual language use, supporting the development of effective instructional activities for practical language skills (Cheng, 2023; Morton, 2023). Teachers should adopt a comprehensive approach in classrooms where material process types, declarative sentences, and T and DT forms predominate in EFL textbooks. For material process types, teachers can implement practical tasks to refine students' language skills. Additionally, organized writing and vocal communication exercises can be used to emphasize succinct and clear communication for declarative phrases. Exercises aimed at enhancing vocabulary related to tangible entities, as represented in T and DT forms, are also essential. Therefore, teaching and instructional activities should maintain balance by addressing different sentence types and encouraging the use of diverse language resources (To, 2018; Troyan et al., 2022). The ultimate goal is to develop adaptable language skills that cater to both written and oral communication needs.

Conclusion

Through transitivity patterns, mood systems, and nominal group analysis, the study has provided key insights into the ideational, interpersonal, and textual functions reflected in EFL textbooks. The transitivity analysis highlighted the ideational function by revealing a preponderance of material processes that emphasize concrete acts and procedures. The mood system analysis uncovered a predominance of declarative structures, supporting the interpersonal function by focusing on straightforward communication. Additionally, the examination of nominal groups demonstrated the frequent use of T (Thing) and DT (Deictic Thing) categories, which enhance the ideational function by providing concrete examples to build vocabulary.

Despite the fruitful findings and insightful perspectives on the linguistic characteristics of EFL textbooks, the present study has certain limitations. As the research focused on a specific set of linguistic features, a more comprehensive investigation of additional grammatical structures and discourse components in EFL materials would be advantageous. Furthermore, the study primarily relied on qualitative analysis; incorporating quantitative methods could enhance the validity and robustness of future studies. Additionally, the research was restricted to a limited collection of textbooks, which narrowed the generalizability of the results. Future research could expand the scope by analyzing a broader range of textbooks from diverse cultural contexts and proficiency levels. Exploring how these linguistic features influence students' language comprehension and acquisition could also provide valuable insights for instructional design. Consequently, this study lays a foundation for future investigations to deepen the understanding of the intricate relationship between linguistic features and instructional applications in EFL materials.

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The interconnection of teacher empowerment and motivating styles: A comparative analysis of novice and experienced EFL teachers

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Abstract. This study intended to disclose perceptions of novice and experienced EFL teachers regarding the linkage of teacher empowerment and their choice of motivating styles. To this end, a mixed-methods research approach was adopted. In the quantitative phase, 156 EFL teachers (Experienced = 97, Novice = 69) completed the online questionnaires on teacher empowerment and motivating style. In the qualitative phase, 10 teachers (5 novice and 5 experienced) were asked to participate in a semi-structured interview. Quantitative results showed that Autonomy-Supportive motivation style (AS) had a significantly positive correlation with Decision Making, Professional Growth, Status, Self-Efficacy, Impact, and Total Empowerment among novice teachers, and a significantly positive correlation with Professional Growth, Status, Autonomy, Impact, and Total Empowerment among experienced teachers. Moreover, the qualitative findings revealed that, from both novice and experienced EFL teachers' perspectives, teacher empowerment was found to influence choice of teacher motivating styles. Further qualitative findings presented that from novice and experienced teachers' vantage point, empowering strategies like attending conferences, reading books and articles, and taking part in professional development programs can contribute to teachers' choice of motivating styles. These results have potential implications for various stakeholders in L2 education who can gain insights into how to foster teacher empowerment as a way to direct teachers toward choosing an autonomy-supportive teaching style.

Keywords: EFL teachers, inhibition, facilitation, reaction time, accuracy, novice teachers, teacher empowerment, teacher motivating styles.

Естаджі Мазумех, Гафезі Шамілех. Взаємозв'язок між розширенням можливостей вчителя та стилями мотивації: Зіставний аналіз вчителів-початківців та досвідчених вчителів англійської мови професійного спрямування.

Анотація. Це дослідження мало на меті розкрити уявлення вчителів-початківців та досвідчених вчителів англійської мови професійного спрямування про зв'язок між

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розширенням можливостей вчителів та їхнім вибором стилів мотивування. Для цього було застосовано змішаний підхід до дослідження. На кількісному етапі 156 вчителів англійської мови професійного спрямування (досвідчених = 97, початківців = 69) заповнили онлайн-анкети щодо розширення можливостей вчителів та стилю мотивування. На якісному етапі 10 вчителів (5 початківців і 5 досвідчених) взяли участь у напівструктурованому інтерв'ю. Кількісні результати засвідчили, що автономно-підтримувальний стиль мотивації (АС) має значущу позитивну кореляцію з прийняттям рішень, професійним зростанням, статусом, самоефективністю, впливом і загальним розширенням можливостей серед вчителів-початківців і позитивну кореляцію з професійним зростанням, статусом, автономією, впливом і загальним розширенням можливостей серед досвідчених вчителів. Крім того, якісні результати показали, що і з погляду вчителів-початківців, і з перспективи досвідчених вчителів англійської мови професійного спрямування, розширення можливостей вчителя впливає на його вибір стилю мотивації. Подальші якісні результати показали, що з позиції початківців та досвідчених вчителів стратегії розширення можливостей, як-от: відвідування конференцій, читання книг і статей та участь у програмах професійного розвитку, можуть сприяти вибору вчителями стилів мотивації. Ці результати мають потенційні наслідки для різних зацікавлених сторін в навчання другої мови, які можуть отримати уявлення про те, як сприяти розширенню можливостей вчителів.

Ключові слова: вчителі англійської мови професійного спрямування, гальмування, фасилітація, час реакції, точність, вчителі-початківці, розширення можливостей вчителів, стилі мотивації вчителів.

Introduction

Measures teachers take to enhance their students' motivation are significant for enhancing students' educational gains (Aelterman et al., 2019). One such teacher stride toward achieving these goals is teachers' adoption of motivating styles, which relates to a kind of interpersonal behavior that teachers employ to engage their students in the learning activities and process (Reeve, 2009). The four teacher styles specified in this regard in the literature are, namely, Autonomy-Supportive (AS), Structure (STR), Controlling (CT), and Chaotic styles (CH) (Aelterman et al., 2019). While chaotic and controlling styles tend to be demotivating, structure and autonomy-supportive styles are motivating. It is reported that teachers' motivating style can contribute to students' high engagement and involvement in the classroom lesson (Haerens et al., 2018), autonomous motivation (Van Doren et al., 2021), and positive experiences (Diloy-Peña et al., 2021). Moreover, teachers with motivating teaching styles attempt to improve students' motivation and mindset (Haerens et al., 2015; Vermote et al., 2020), make them autonomous self-regulators (Reeve, 2009), and empower students to become competent learners (Aelterman et al., 2019). Accordingly, due to the potentially influential effect that teacher motivating styles can have on students' academic performance and outcomes, it is

important to uncover what teacher factors might influence their choice of motivating styles.

In this respect, results of previous investigations have revealed that teachers' experience of undesirable emotions can trigger their adoption of a demotivating style, while their experience of positive emotions, satisfaction of their needs, and better emotional regulation prompt them toward adopting a motivating style (Moè & Katz, 2021, 2022). Similarly, teacher self-efficacy and intrinsic instructional goals were found to foster their autonomy-supportive teaching behaviors (Reeve et al., 2018). While no study to date has uncovered the role of teacher empowerment in teachers' adoption of motivating styles, it was reported by previous researchers that teacher empowerment is linked to teachers' level of motivation (Davis & Wilson, 2000). Thus, in this study, we hypothesize that, as a positive teacher emotional experience, teacher empowerment can potentially increase EFL teachers' tendency to choose motivating styles. The concept of empowerment is seen as "a process whereby school participants developed the competence to take charge of their own growth and resolve their own problem" (Short, 1994, p. 38). One of the seminal studies on teacher empowerment has determined six subcategories for it, which are, namely, decision making, professional growth, status, self-efficacy, autonomy, and impact (Short, 1994). Furthermore, different empirical investigations have been conducted to date to examine the potential association of teacher empowerment with such teacher work-related factors as teacher job satisfaction, leadership, and organizational and professional commitment (Bogler & Somech, 2004; Muijs & Harris, 2003) as well as students' academic performance (Marks & Louis, 1997). More specifically, in the realm of language education, teacher empowerment was found to associate with teacher factors like efficacy beliefs (Baleghizadeh & Goldouz, 2016), job commitment (Xiong, 2022), and job satisfaction (Khany & Tazik, 2016).

In sum, due to the significance of both teacher empowerment and motivating styles for both teachers' occupational effectiveness and students' attainment of desirable academic outcomes, and the shortage of studies on the association of empowerment and choice of motivating teaching styles in teachers, the present study adopted a mixed-methods research methodology to explore first, the extent to which the subcomponents of the teacher empowerment concept were associated with the novice and experienced EFL teachers' motivating styles, second, the perceptions of novice and experienced EFL teachers regarding the role of empowerment in their choice of motivating styles, and the ways in which EFL teachers' level of empowerment could contribute to their choice of motivating styles.

Literature Review

Teacher Motivating Styles

Teachers' motivating styles refers to the way teachers motivate and engage students in learning activities and educational tasks (Reeve, 2009). According to the self-determination theory (SDT; Deci & Ryan, 2002), teachers motivate their students differently based on the four different motivating styles, which are namely, controlling, autonomy-supportive, structure, and chaotic styles (Aelterman et al., 2019; Deci et al., 1981). The controlling style relates to teachers' interpersonal emotions and behaviors that put pressure on students to think, feel, or behave in a specific manner (Reeve et al., 2004). Assor et al. (2005) posit that teachers demonstrate the controlling motivating style in two ways, that is, externally (directly) and internally (indirectly). Direct controllers overtly attempt to motivate learners by setting direct rules/motives, like deadlines and environmental incentives in the classroom. In contrary, indirect controllers try to motivate learners by enacting indirect forces like generating the feeling of guilt, embarrassment, or nervousness in students (Barber, 1996), threatening students to take away teacher attention or approval (Assor et al., 2004), and finally, promoting perfectionist values (Soenens et al., 2005).

Three main characteristics appear to make a teacher controller rather than autonomy-supportive. First, such teachers only attend to their own perspectives and ignore students' points of view. Second, they try to manipulate students' thoughts, feelings, and behaviors. And third, they force learners to think, feel, and act in a particular way (Reeve, 2009). The second teacher motivating style is autonomy-supportive, relating to teachers' employment of such interpersonal behaviors that attempt to identify and nurture students' intrinsic motivational resources (Assor et al., 2002). In this respect, Haerens et al. (2015) noted that autonomy-supportive teachers tend to show sincere respect for students' opinions and expand students' inner motivational resources based on the belief that through taking such actions, they can increase students' self-motivation. The autonomy-supportive style can be realized by such teachers' attempts as valuing students' perspectives and, where possible, applying them in instructional decision makings, attending to students' feelings, thoughts, and behaviors, boosting students' development of motivation and autonomous self-regulation (Reeve, 2009).

More specifically, by fostering autonomous self-regulation in students, teachers can increase opportunities for interactions with and provision of support to students and, thus, help students achieve their short- or long-terms goals of effectively regulating their academic motivation (Reeve, 2009). Another area of research in this regard, has concentrated on Autonomy-Supportive

Intervention Programs (ASIPs), which assist instructors to become more autonomy supportive. It has been concluded that ASIPs are beneficial in changing teachers' points of views toward the autonomy-supportive style from a difficult endeavor to a quite feasible and easy one to employ in the classroom (Reeve & Cheon, 2016). Also, teachers-efficacy and intrinsic instructional goals are two sources during ASIPs that led to fostering and enhancing of autonomy-supportive behaviors among instructors (Reeve et al., 2018).

The third teacher motivating style that has recently grabbed attention of many scholars is the structuring style. Teachers with this style usually attempt to provide guidance and assistance to students and aid them to select the best strategies that empower them to become competent learners (Aelterman et al., 2019). In other words, structuring teachers tend to introduce various learning strategies along with their advantages so that, based on their preferences, students can select the strategies that best suit their needs (Aelterman et al., 2019), and as a result, become competent learners (Skinner et al., 1998). In structuring classes, teachers use a process-oriented approach toward instruction and align learning activities and their expectations with students' abilities and characteristics in order to enhance chances of students' learning and completion of activities with a sense of competence (Haerens et al., 2015).

The fourth teacher motivating style is the chaotic style that pertains to a teacher's tendency to shirk his/her responsibilities as a teacher and let students start everything even if students do not know how and where to start from (Aelterman et al., 2019). Such teachers follow a *laissez-faire* attitude that demonstrates their reluctance to fulfill their role as a teacher (Moè & Katz, 2021). They neither get involved in students' learning nor provide any help or instruction to students and simply let students figure out what they should do. Moreover, they believe that students should take responsibility for their own learning and growth (Aelterman et al., 2019). Teachers' adoption of an autonomy supportive teaching style (i.e., offering choices, providing rationales for doing things, accepting expressions of negative affect) and provision of a structure (i.e., setting clear objectives, suggesting potential strategies or steps to follow) were found to be motivating for students, whereas controlling modalities (i.e., imposing goals or strategies, embarrassing students, or making students feel guilty) or a chaotic style (i.e., setting contradictory expectations and requirements, reluctance to set rules or provide support, letting students solve issues by their own) tend to de-motivate students (See review of Stroet et al., 2013).

In the literature, various theories have been referred to in explaining teachers' motivating styles. One of such theories is SDT (Deci & Ryan, 2002), which is a macro theory that encompasses such concepts as personality

development, motivation, and well-being. The theory mainly focuses on two things; first, self-determined behaviors, and second, identification of social and cultural conditions/factors that lead to such behaviors (Ryan, 2009). According to Ryan and Deci (2002), based on SDT, students' intrinsic motivation can be enhanced through nurturing their basic psychological needs for autonomy (i.e., one's freedom of action in the educational setting), relatedness (i.e., feeling connected to others in the instructional context), and competence (one's perceptions of being able to execute educational tasks successfully). According to SDT, teachers can increase students' intrinsic motivation or a self-determined form of motivation through adopting an autonomy-supportive style that help teachers create conditions where students can experience a sense of choice and endorsement.

To date, many researchers have tried to empirically investigate teachers' motivating styles. For instance, Reeve (2009) identified characteristics of controlling and autonomy-supportive teachers. The mentioned features include orienting toward their own perspectives and ignore students' points of view; manipulation of students' thoughts, feelings, and behaviors; and imposing pressure on students to think, feel, and act in particular ways as for controlling teacher. While autonomy-supportive instructors were characterized as employing students' perspective in their instructions; embracing students' thoughts, sentiments, and behaviors, and endorsed students' development of motivation and capacity for autonomous self-regulation.

He also explored the instructional behaviors related to each of these styles and why teachers have a tendency toward the controlling style. And finally, he proposed seven ways in which teachers can become more autonomy-supportive in the classroom. In another study, Vansteenkiste et al. (2012) examined the relationship between the autonomy-supportive and structuring styles. In this regard, they found that there is a positive correlation between the two types of motivating styles, denoting that they tend to co-occur. They also attempted to identify the association between these styles and student's motivation, learning strategies, and problematic behaviors. The research suggested that perceived autonomy-supportive and clear expectation, as the millstone of structure style, had a strong association with the most positive patterns of students' outcomes and motivation. In another research undertaking, Amoura et al. (2015) examined the opposite position of the autonomy-supportive and controlling styles on the motivating styles continuum from the perspective of students. Their results revealed that the students perceived the two styles to be separate but not opposite. Furthermore, a moderate negative correlation was found between the two styles.

Likewise, Cheon et al. (2020) reported the results of two longitudinal, experimental studies that examined the effectiveness of an autonomy-supportive plus structuring intervention and its potential benefits for teachers themselves and their students. The experimental group participated in an autonomy-supportive intervention program while the control group did not take part in any intervention. Results of this study mainly revealed that provision of structure in an autonomy-supportive way to teachers could enhance their motivating style quality and brought to them such benefits as greater job satisfaction and teaching efficacy. Moreover, the intervention could result in such gains as better skill development and classroom engagement in students of teachers in the experimental group.

Furthermore, some other studies have attempted to unravel the potential teacher factors that could influence teachers' choice of their motivating style. For instance, Reeve et al. (2018) found that teacher self-efficacy and intrinsic instructional goals could predict teachers' autonomy-supportive style (Reeve et al., 2018). Similarly, Moè and Katz (2021, 2022) reported that teachers' effective emotion regulation and psychological needs satisfaction triggered teachers toward adopting motivating styles (autonomy-supportive and structuring), while need frustration led to selection of de-motivating styles (controlling and chaotic). Furthermore, the researchers recommended that if teachers want to motivate their students, they need to boost their own motivation first. In this study, we argue that teacher empowerment is one of the factors that can potentially boost teachers' motivation and influence their choice of motivating style. While no study to date has examined the association of teacher empowerment and choice of motivating style, the linkage of teacher empowerment and motivation has been emphasized in the literature. In the next section, we briefly explained the concept of teacher empowerment, some previous empirical investigations of it, and arguments for its association with teacher motivation.

Teacher Empowerment

In the realm of education, the concept of teacher empowerment initially came into vogue in the 1980s and affected the Western educational policies. The first attempts to empower teachers had a socio-structural nature, which focused on empowering teachers to make decisions at schools regarding such issues as curriculum design and development (Lightfoot, 1986). This approach also brought democracy to school as workplace for teachers. However, in the 1990s, the view toward the concept of teacher empowerment changed and took a more psychological perspective. In this regard, Thomas and Velthouse (1990)

posited that teacher empowerment is related to intrinsic motivation which originates internally within an individual who does something for his/her desire rather than for receiving external rewards (Deci & Ryan, 1985). In the same vein, Bogler and Somech (2004) described teacher empowerment as a factor helping teachers develop specific competencies and skills that enable them to identify and solve their problems and accept responsibility for their own progress. Later, Thomas (2017) also considered teacher empowerment as a process that provides teachers with certain social and organizational behaviors to enhance their inner motivation and bring out best intrinsic potentials which can lead to their optimal performance in the educational settings.

Moreover, in their comprehensive, three-year project on school empowerment in the United States, Short and Rinehart (1992) introduced six dimensions of teacher empowerment, namely (1) decision making, (2) professional growth, (3) self-efficacy, (4) autonomy, (5) status, and (6) impact. Decision-making relates to a teacher's involvement in the pivotal school-level decision makings. Next, professional growth pertains to the perceptions of teachers toward the extent to educational institutes provide opportunities for teachers to grow and develop professionally (Short, 1994). Third, self-efficacy relates to teachers' beliefs about their competencies and skills to foster students' learning, build productive programs for learners, and make practical changes in the instructional programs (Short, 1994). As Bandura (1977) posits, self-efficacy has to do with confidence in one's ability to have control over one's social environment, behavior, and motivation.

The fourth dimension, namely autonomy, pertains to one's self-governing ability. As pinpointed by Little (1995), teacher autonomy refers to a teacher's capacity to engage in self-directed teaching. When teachers feel autonomous, they believe that they are able to govern certain aspects of their professional life. Therefore, autonomous teachers tend to involve themselves in decision making processes in such educational issues such as curriculum design, textbook selection, and instructional planning (Thomas, 2017). The next dimension is status which refers to a teacher's perceptions about their occupational status as a teacher and the extent to which (s)he is respected, supported, and praised by the educational institution and his/her colleagues (Short, 1994). As the last dimension of empowerment, impact refers to teachers' perception of their ability to affect the school life in general and students' experiences and outcomes in particular (Short, 1994). Moreover, Ashton and Webb (1986) admitted that teachers' sense of self-efficacy enhances when they perceive themselves as doing something beneficial, behave in a competent manner (i.e., having impact), and are recognized for their fulfilments by others (i.e., higher status).

One of the pioneering studies on teacher empowerment is the research conducted by Maeroff (1988). The researcher proposed three guiding principles for empowering teachers, including status, knowledge, and decision making. He suggested that enhanced teachers' self-esteem can help them feel empowered and able to acknowledge their status as a teacher. Concerning the second principle, he noted that to increase teachers' authority, they need to possess sufficient knowledge concerning the subject matter they teach. Finally, decision making was proposed as another empowering principle, referring to provision of opportunities for collaboration of teachers with school principals to make decisions on different educational issues.

Many empirical investigations have been done to date on the concept of teacher empowerment. Some of these studies examined the linkage of empowerment with other teacher job-related factors. To start with, Short and Rinehart (1992) found that teacher empowerment was positively related to teachers' job satisfaction. Similarly, Bogler and Somech (2004) examined the association of teacher empowerment with teacher organizational commitment, professional commitment, and organizational citizenship behavior. They found that decision-making, self-efficacy, and status dimensions of empowerment were significant predictors of organizational and professional commitment while professional growth, status, and self-efficacy dimensions of empowerment predicted organizational citizenship behaviors in teachers.

Some other studies have also attended to the exploration of factors that influenced teacher empowerment. For example, in a longitudinal study, Fang (2013) investigated the effect of a teacher professional development program on teacher empowerment. They found that the program had a significant effect on teachers' development of their content knowledge, professional wisdom, and psychological power. Likewise, in a focused-ethnography study of teacher empowerment in Asia, Thomas (2017) argued that the concept of teacher empowerment is oriented toward the Western culture. The researcher examined the potential role of behaviors of school leaders, colleague teachers, students, and parents in facilitating or diminishing teacher empowerment. Based on the findings, the researcher concluded that teacher empowerment can be also relevant to the non-Western culture. The researcher also suggested that teacher empowerment is a self-driven concept. Tsang and Qin (2020) also uncovered the impact of neoliberalism on teacher empowerment. They reported that lack of support and strict environment, as conditions of neoliberalism, hindered enhancement of teacher empowerment.

As pertained to the context of the present study, some previous L2 researchers have studied teacher empowerment in the Iranian EFL instructional context. In this regard, Amoli and Youran (2014) and Khany and

Tazik (2016) focused on the association between teacher empowerment and job satisfaction among Iranian EFL teachers. Their results suggested that there was a positive correlation between teachers' empowerment and job satisfaction. Likewise, Baleghizadeh and Goldouz (2016) and Veisi et al. (2015) studied and empirically approved the positive relationship between teacher empowerment and efficacy beliefs. Nevertheless, no study to date has focused on scrutinizing the possible link between teacher empowerment and choice of motivating style neither in second/foreign language (L2) education nor in general education. Veisi et al. (2015) admit that the linkage of teachers' empowerment with their psychological aspects such as motivation has received less attention to date. This is despite the great importance attributed to teacher inner/intrinsic motivation in previous conceptualizations of the teacher empowerment construct as described in the literature (Deci & Ryan, 1985; Thomas, 2017; Thomas & Velthouse, 1990). Therefore, to address this noted gap, the present study, through adopting a mixed-methods research design, attempts to explore novice and experienced EFL teachers' perceptions of the association of teacher empowerment and choice of motivating styles by trying to answer the following research questions:

1. To what extent are the subcomponents of teacher empowerment associated with novice and experienced Iranian EFL teachers' choice of motivating style?
2. What are the perceptions of novice and experienced Iranian EFL teachers regarding the role of teacher empowerment in the choice of motivating style?
3. In what ways do Iranian EFL teachers' empowerment perceptions contribute to their choice of motivating styles?

Method

Research Design

This research study adopted a sequential explanatory mixed-method design (Creswell, 2003) which combines a questionnaire with a follow-up interview. Although through questionnaire researchers are able to collect a large amount of information in a relatively short period of time, it does not provide sufficient information for the investigation of complex meaning, on the ground that participants' engagement in filling out the questionnaire tends to be rather shallow and without any special care. Adding a follow-up interview as a qualitative component can compensate for the mentioned weakness, and

identify any anomalies and unexpected results. This straightforward design is easy to implement and analyze, yet provides enriched information. Gass and Mackey (2016) also suggested that the combination of quantitative and qualitative methods can obtain an in-depth comprehension of the topic. The researchers also identified that one of the prominent characteristics of mix-method studies is triangulation that allows researchers to investigate a topic from various perspectives as well as use different methods and techniques. The researcher aimed to identify the association between subcategories of teacher empowerment as an independent variable and the tendency of teachers toward selecting motivating style as a dependent variable. In this study, the priority was placed on the qualitative components to respond to research questions.

Participants

To carry out this study, 156 Iranian EFL teachers working at different English language institutes in Tehran were selected. They were from both genders (Male = 53, Female = 103) with the average age of 30. For the purpose of this research, the participants were divided into two groups, novice teachers (three years of experience or less, N = 69) and experienced teachers (with more than three years of experience, N= 97; Farrell, 2012). At the time of data collection, the teachers were teaching at elementary, intermediate, or advanced levels. They were BA, MA, and Ph.D. holders of TEFL. In the quantitative phase, they were asked to complete an online questionnaire including three sections; namely, the demographic information, the teacher empowerment questionnaire, and the motivating style questionnaire. Next, in the qualitative phase, 10 of the teachers (5 experienced and 5 novice) who had already completed the questionnaire in the quantitative phase, were targeted for participation in an interview session. Table 1 demonstrates the participants' demographic information of age and teaching experience.

Table 1
Participants' Demographic Information of Gender and Teaching Experience

Gender	Number	Experienced	Novice
Male	53	28	18
Female	103	59	78
Total	156	97	96

Instruments

Demographic Information Questionnaire

This questionnaire provided information regarding the participants' gender, age, teaching experience (novice or experienced), educational qualification (BA., MA., Ph.D.), and major (TFEL).

Teacher Empowerment Questionnaire

To investigate teachers' perceptions of their level of empowerment, the School Participant Empowerment Scale was used. It was originally developed by Short and Rinehart (1992) as an attempt to measure, identify, and assess the level of teacher empowerment within the school environment. The questionnaire comprises 38 items on different subcategories of empowerment, including *decision making, professional growth, status, self-efficacy, autonomy, and impact*. The responses to items are provided on a 5-point Likert scale, ranging from Strongly agree to Strongly disagree (Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly agree = 5). To align the scaling of this questionnaire with that of the motivating style questionnaire in this study, we changed the wording of the scale responses to the range of "describe me extremely well" to "does not describe me at all". Cronbach alpha and item-total correlation were computed as measure of reliability for this questionnaire. Obviously, most of the alphas are above .7, hence high internal consistency reliability. As for the alphas below .7, it should be noted that the number of items in the subscales is very low; therefore, such low alphas were quite predictable and justifiable. The item-total correlations for each questionnaire total and subscales are presented in the Appendix A. Since most of the values are above .4, the items could be considered to have sufficient discrimination. All in all, it could be concluded that the questionnaires used in this study were reliable enough. Table 2 presents the alphas calculated for each subscale of the questionnaire.

Table 2

Cronbach Alphas for School Participant Empowerment Subscales

Scale	Alpha	Items
Total Empowerment Scale	.88	38
Decision Making	.85	10
Professional Growth	.43	6
Status	.47	6
Self-Efficacy	.69	4
Autonomy	.76	4
Impact	.80	6

According to Table 2, three subscales have alpha values above .70, and hence, enjoy high reliability. However, three subscales have alpha values below .70. It should be noted here that these subscales included few items which might justify the low alpha values reported for them. Overall, since all alpha values are above .40 (Table. 2), the items could be considered to have sufficient discrimination. As for the low item-total correlations (Appendix A), it should be noted that the removal of items with low item discrimination did not result in much higher alphas as per the last column in the related tables (Appendix A); therefore, we decided to keep these items in this study.

Motivating Style Questionnaire

To measure teachers' motivating styles, the Situation in School questionnaire was employed in this study (Aelterman et al., 2019). It contains of 60 items, presenting 15 different teaching situations that commonly occur in the classroom. The mentioned situation, includes *classroom rules, lesson plan, staring class, motivating students, non-responsive students, students complain, needing extra effort, anxiety surface, transition to a new activity, student misbehavior, practice time, arguing students, test result, remediation, and homework*. These situations are followed by four possible ways for teachers to handle them and choosing each of these ways for each item contributes to indication of the teachers' choice of motivating styles. In this study, we just focused on the autonomy-supportive and controlling styles, and thus, only 30 items (2 items for each condition) of the questionnaire were used. The participants' responses were marked on a 7-point Likert scale, ranging from 1 "Does not describe me at all" to 7 "Describing me extremely well". Cronbach alpha was measured to check reliability of the scale. Alpha values of .80 and .85 were respectively reported for the autonomy-supportive and controlling components. Thus, the scale has high internal consistency. Table 3 presented the alphas calculated for both styles.

Table 3
Cronbach Alphas for Situation in School Questionnaire

Scale	Alpha	Items
Control	.85	15
Autonomy-support	.80	15

The item-total correlations for each motivating style are presented in the Appendix B. Since most of the values are above .4, the items could be

contemplated to have sufficient discrimination. Overall, it could be concluded that the motivating style questionnaire items were reliable enough.

Semi-structured Interview

The present study researchers developed 14 interview items in English language (See the Appendix C) to be asked from the participants in the qualitative phase of the study. These items were developed based on the components of the teacher motivating style and empowerment questionnaires (Aelterman et al., 2019; Short & Rinehart, 1992) used in the quantitative phase of the study. The content validity of the interview items was checked through the expert judgment approach. As a result, the linguistic clarity and content relevance of the items were approved by the expert, therefore, the interview items were found to enjoy content validity.

Data Collection Procedure

The intended data was collected in several stages. At the outset of the study, the questionnaire was piloted with 20 participants who were similar to the target sample for which the instrument has been designed. The piloting stage was to predict what problem may threaten the outcome of the study and ensure reliability and construct validity of items in the context of research. The reliability and validity indices were checked carefully. As for the qualitative instrument, a semi-structured interview was investigated in terms of content validity through expert judgment.

After the piloting phase, the intended participants (N = 156) were completed the online version of the mentioned questionnaires. The questionnaire comprised three separate parts including personal information which was designed by the researcher in order to elicit the demographic information, including full name, gender, age, educational background, teaching experience, and contact information as well as their consent; second, the School Participant Empowerment Scale was used (SPES, Short & Rinehart, 1992) as an indicator of teachers' level of empowerment in each of the subcategories; and Situation in School Questionnaire was employed (Alterman et al., 2019) in order to identify the motivating style. Afterward, the questionnaires were scored based on the formulas provided by the developers in order to do quantitative analyses. It is worthy to note that the researcher assured the confidentiality of the participants' identities and responses. Having qualitative data gathered, the researcher moved to the qualitative phase.

The qualitative data was gathered in various phases as well. First, through purposive sampling 10 participants were selected. They were chosen from novice (N = 5) and experienced (N = 5) teachers who have already completed questionnaires at the quantitative phase and were willing to participate in a semi-structured interview. Second, the researcher met each of them online using the WhatsApp application and asked some pre-developed questions. The interview lasted between 15 to 20 minutes, and they were recorded by a voice recorder. And finally, the recorded files were transcribed in order to extract the main themes and do thematic analysis for responding to qualitative research questions.

Data Analysis

The principal purposes of this research study were to clarify the association between Iranian EFL novice and experience teachers' empowerment and teachers' motivating styles as well as identifying the difference in level of teacher empowerment among novice and experienced instructors. Hence, the data analysis was done based on data collection from the demographic information questionnaire, the teacher empowerment questionnaire, the teacher motivating style questionnaire, and the semi-structured interview. The following sections demonstrate both quantitative and qualitative analyses respectfully.

Quantitative Data Analysis

At the onset of quantitative data analysis, reliability estimation was calculated using Cronbach's alpha. Then, each quantitative research question was individually answered. First, the teacher empowerment level among Iranian EFL novice and experienced teachers, using Multivariate Analysis of Variance (MANOVA), was compared. Likewise, descriptive statistics were computed then the normality of data was checked based on skewness and kurtosis ratios. To answer the quantitative research question, teacher empowerment subcomponents' effect on Iranian EFL novice and experienced teachers' motivating styles was examined. According to normality checking based on skewness and kurtosis ratios, parts of data violated the normality assumptions so, Spearman Rho correlation coefficient was run, as for normal data, the counterpart parametric statistics, the Pearson Product Moment correlation coefficient was employed.

Qualitative Data Analysis

In order to answer qualitative questions, the following steps were carried out. First, all interviews were recorded, transcribed, summarized, categorized for the purpose of analysis and identification of the most dominant themes. Second, the categories were analyzed using thematic analysis in order to obtain in-depth insight into details and find prominent themes as well as a pattern through coding schemes. An external coder checked the generated codes and themes for both groups of novice and experienced EFL teachers against the qualitative data gathered in the present study. The aim was to see if the obtained inductive codes and themes could accurately reflect the responses provided by the participants. Having scrutinized all codes and themes as well as the data, the external coder confirmed the congruence among the codes, themes and data and thus had total agreement with the present study researcher regarding the thematic analysis findings in this study.

Results

The Quantitative Results

The first research question of the study aimed to unravel perceptions of novice and experienced EFL teachers regarding the role of teacher empowerment subcomponents in predicting teacher choice of motivating style. In order to find answer to this research question, correlational analyses were conducted on the obtained quantitative data from the novice and experienced groups, separately. This allowed us to see whether the teaching experience level make any difference in teachers' perceptions toward the linkage of teacher empowerment components with choice of motivating style. To this aim, first, the normality of the data was checked based on the skewness and kurtosis ratios (i.e., the kurtosis/skewedness value divided by its standard error).

Table 4 shows the descriptive statistics. The results indicated that some ratios (i.e., "status" in novice teachers and "autonomy supportive (AS) R" and "controlling (CT) R" in experienced teachers) related to some Dependent Variables (DVs) were beyond ± 1.96 , and hence, violation of the normality assumption occurred. Therefore, Spearman's rho was employed for calculating associations based on the non-normally distributed (non-parametric) data while Pearson product moment correlation coefficient was utilized to calculate relationships based on the normally distributed (parametric) data.

Table 4
Descriptive Statistics

Exp		N	Mean	Std. De-	Skewness	Kurtosis		
		Sta-	Statistic	viation	Std.	Std.	Statistic	Std.
		tistic		Statistic	Statistic	Error	Statistic	Error
Novice	DecisionMaking	58	2.6588	.69797	.097	.314	-.801	.618
	ProfessionalGrowth	58	3.3822	.74077	-.821	.314	.197	.618
	Status	58	3.9569	.65751	-.610	.314	.272	.618
	Self.Efficacy	58	3.7270	.64262	-.777	.314	1.114	.618
	Autonomy	58	3.1853	.85399	.024	.314	-.425	.618
	Impact	58	3.3879	.68497	-.298	.314	.243	.618
	Total.Emp	58	3.5643	.54291	-.231	.314	-.248	.618
	CTR	58	2.7368	.72949	.275	.314	-.599	.618
	ASR	58	3.4954	.52954	-.951	.314	1.358	.618
	Valid N (listwise)	58						
Experienced	DecisionMaking	97	2.8732	.86993	-.043	.245	-.665	.485
	ProfessionalGrowth	97	3.5464	.93904	2.219	.245	14.047	.485
	Status	97	4.0533	1.14830	4.844	.245	38.159	.485
	Self.Efficacy	97	3.7216	.64087	-.162	.245	-.431	.485
	Autonomy	97	3.2912	.97072	-.261	.245	-.483	.485
	Impact	97	3.4794	.79030	-.532	.245	.159	.485
	Total.Emp	97	3.6364	.67682	.732	.245	3.967	.485
	CTR	97	2.8021	.66705	-.108	.245	-.679	.485
	ASR	97	3.4381	.58284	-.463	.245	-.319	.485
	Valid N (listwise)	97						

Tables 5 and 6 present all the Pearson and Spearman coefficients.

Table 5
Spearman Coefficients' Results

	Exp			ASR	CTR	
Spearman's rho	Novice	DecisionMaking	Correlation	.365 ^{**}		
			Coefficient			
				Sig. (2-tailed)	.005	
				N	58	
	ProfessionalGrowth			Correlation	.326 [*]	-.054
				Coefficient		
				Sig. (2-tailed)	.012	.685
				N	58	58

	Status	Correlation Coefficient	.294 [*]	
		Sig. (2-tailed)	.025	
		N	58	
	Self.Efficacy	Correlation Coefficient	.462 ^{**}	.164
		Sig. (2-tailed)	.000	.217
		N	58	58
	Autonomy	Correlation Coefficient	.246	
		Sig. (2-tailed)	.062	
		N	58	
	Impact	Correlation Coefficient	.476 ^{**}	
		Sig. (2-tailed)	.000	
		N	58	
	Total.Emp	Correlation Coefficient	.445 ^{**}	
		Sig. (2-tailed)	.000	
		N	58	
Experienced	DecisionMaking	Correlation Coefficient	.189	
		Sig. (2-tailed)	.063	
		N	97	
	ProfessionalGrowth	Correlation Coefficient	.332 ^{**}	
		Sig. (2-tailed)	.001	
		N	97	
	Status	Correlation Coefficient	.210 [*]	
		Sig. (2-tailed)	.039	
		N	97	
	Self.Efficacy	Correlation Coefficient	.148	
		Sig. (2-tailed)	.147	
		N	97	
	Autonomy	Correlation Coefficient	.213 [*]	
		Sig. (2-tailed)	.036	
		N	97	
	Impact	Correlation Coefficient	.204 [*]	
		Sig. (2-tailed)	.045	
		N	97	

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Total.Emp	Correlation Coefficient	.227*
	Sig. (2-tailed)	.025
	N	97

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 6
Pearson Correlations' Results

Exp			CTR
Novice	DecisionMaking	Pearson Correlation	.037
		Sig. (2-tailed)	.784
		N	58
	Status	Pearson Correlation	.052
		Sig. (2-tailed)	.701
		N	58
	Autonomy	Pearson Correlation	.015
		Sig. (2-tailed)	.909
		N	58
	Impact	Pearson Correlation	.238
		Sig. (2-tailed)	.073
		N	58
Total.Emp	Pearson Correlation	.140	
	Sig. (2-tailed)	.293	
	N	58	
Experienced	DecisionMaking	Pearson Correlation	.043
		Sig. (2-tailed)	.675
		N	97
	Status	Pearson Correlation	-.181
		Sig. (2-tailed)	.076
		N	97
	Autonomy	Pearson Correlation	.045
		Sig. (2-tailed)	.662
		N	97
	Impact	Pearson Correlation	-.099
		Sig. (2-tailed)	.334
		N	97
Total.Emp	Pearson Correlation	-.095	
	Sig. (2-tailed)	.357	
	N	97	

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Results of Tables 5 and 6 indicate that no correlation between the subcomponents of teacher empowerment and CTR motivating style along the categories of novice and experienced teachers is significant ($p > .05$). However, AS style has a significantly positive correlation with Decision Making, Professional Growth, Status, Self-Efficacy, Impact, and Total Empowerment (i.e. Rhos = .36, .32, .29, .46, .47, .44, respectively; $p < .05$) among novice teachers, and a significantly positive correlation with Professional Growth, Status, Autonomy, Impact, and Total Empowerment (i.e. Rhos = .33, .21, .21, .20, .22, respectively; $p < .05$) among experienced teachers.

In order to investigate the role of experience in affecting the correlations between subcomponents of teacher empowerment and motivating styles, partial correlations were also run with experience levels as the moderating variable whose results are presented in Table 7.

Table 7
Partial Correlations

Control Variables			Decision Making	Professional Growth	Status	Self-Efficacy	Autonomy	Impact	Total.Emp
- none- a	CTR	Correlation	.046	.043	-.111	.046	.036	.025	-.011
		Significance (2-tailed)	.570	.594	.169	.572	.653	.761	.889
		df	153	153	153	153	153	153	153
	ASR	Correlation	.213	.244	.218	.180	.204	.260	.284
		Significance (2-tailed)	.008	.002	.006	.025	.011	.001	.000
		df	153	153	153	153	153	153	153
Exp	CTR	Correlation	.040	.039	-.113	.046	.034	.022	-.014
		Significance (2-tailed)	.618	.630	.161	.571	.676	.787	.864
		df	152	152	152	152	152	152	152
	ASR	Correlation	.222	.250	.221	.180	.208	.263	.288
		Significance (2-tailed)	.006	.002	.006	.025	.010	.001	.000
		df	152	152	152	152	152	152	152

a. Cells contain zero-order (Pearson) correlations.

Table 7 presents two sets of correlation coefficients for each pair of variables. The first set in the top row shows the initial correlations controlling for no moderator variable. The second set in the row below shows the correlation coefficients after controlling for the aforesaid moderator variables. Evidently, after controlling for the effect of moderator variable (i.e. experience level), there is no major change in the correlation coefficients. This result supports the former correlation coefficients along the experience levels.

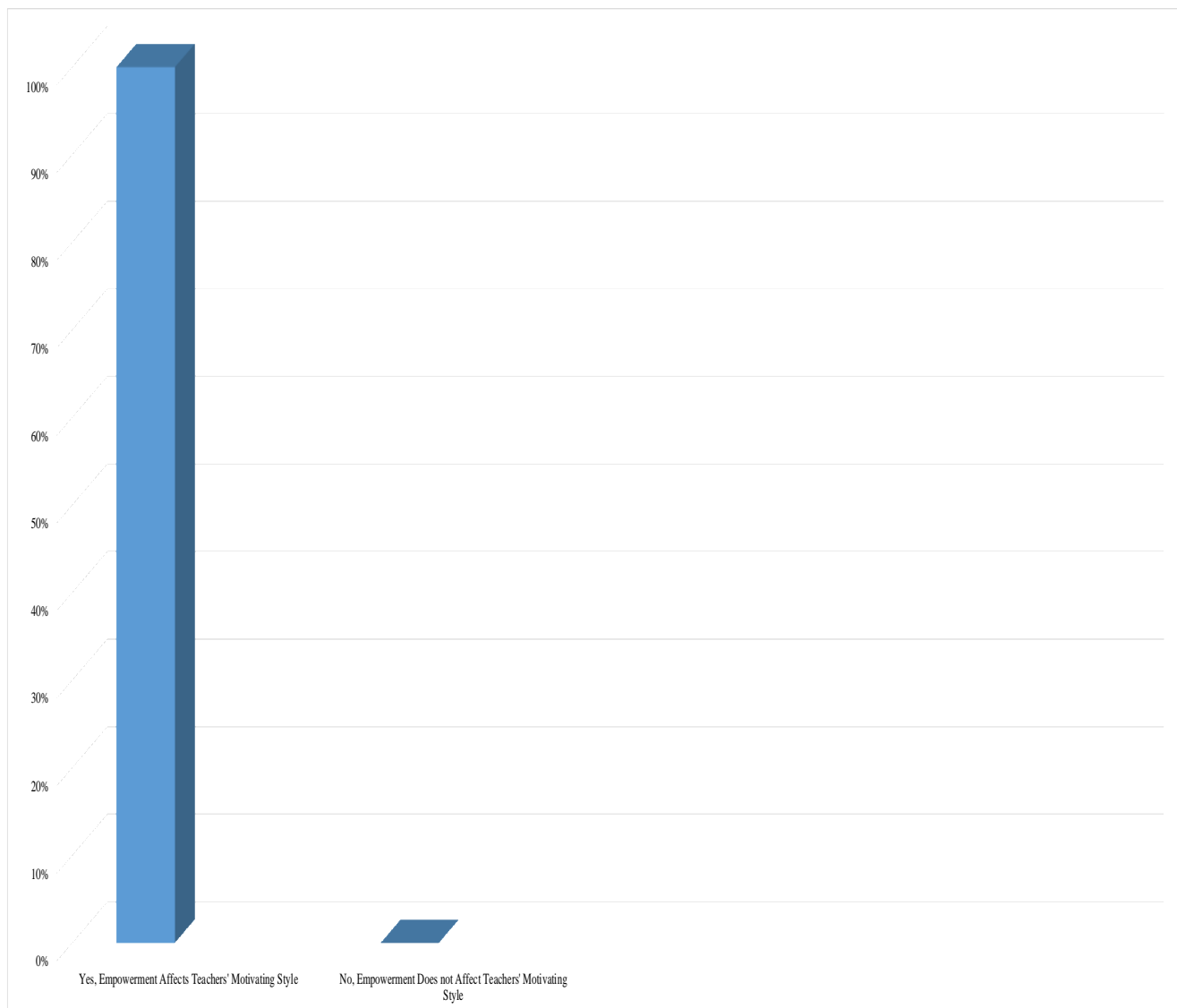
The Qualitative Findings

In responding to the second research question of the study, some data elicited in the qualitative phase were analyzed. More specifically, this research question aimed at unraveling novice and experienced EFL teachers' perceptions regarding whether teacher empowerment could play any role in teacher choice of a motivating style. To this end, responses to the first question in section 1 of the interview questions was analyzed. Figure 1 presents these results.

According to Figure 1, all novice and experienced EFL teachers (N = 10, 100 %) admitted that teachers' level of empowerment plays a role in their choice of a motivating style. Overall, the teachers maintained that when an EFL teacher's level of empowerment is high, (s) he can transfer that power to students in the class and teach autonomously with their self-selected motivating style. They also pinpointed that when they have power, they convey their ideas easily, and teach with great autonomy which is characterized by motivation in their style of teaching. For instance, an experienced EFL teacher commented that "for sure, teachers' empowerment can affect their motivating style because by having power in the class, teachers can do whatever that is effective and motivating" (Experienced 1). Similarly, a novice EFL teacher mentioned that "I agree that empowerment has a role in teachers' motivating style" (Novice 3). "When I have enough power, I try to empower my students and be more autonomous" (Novice 3). Thus, these interview responses revealed that Iranian EFL teachers, regardless of their teaching experience level, approved the direct association of teachers' empowerment level with their choice of motivating styles.

Next, the third research question of the study aimed to explore the ways through which EFL teachers' empowerment perceptions contribute to their choice of motivating styles. To answer this question, the rest of the qualitative data, pertaining to the participants responses to the second question in section 2 of the interview, were content and thematically analyzed as presented in Figure 2 And Figure 3 for novice and experienced teachers respectively.

Figure 1
Novice and Experienced EFL Teachers' Perceptions about the Role of Empowerment in Choice of Motivating Style



According to Figure 2, results obtained from content and thematic analyses of the qualitative data revealed that for the novice EFL teachers, choice of teacher motivating styles is determined through various empowerment conditions/strategies. Such teacher empowerment strategies found in this study were sharing ideas with colleagues, attending workshops, doing empirical research, attending conferences, and taking part in professional development programs. In this respect, for instance, a novice EFL teacher stated that “teachers’ motivating style can be promoted by participating in various professional development workshops and conferences”. Another novice teacher highlighted the importance of “doing research and action research in your field and sharing knowledge and skills with your colleagues”.

Figure 2

Different Ways Through Which Teacher Empowerment Contributes to Teacher Choice of Motivating Styles (Novice Teachers)

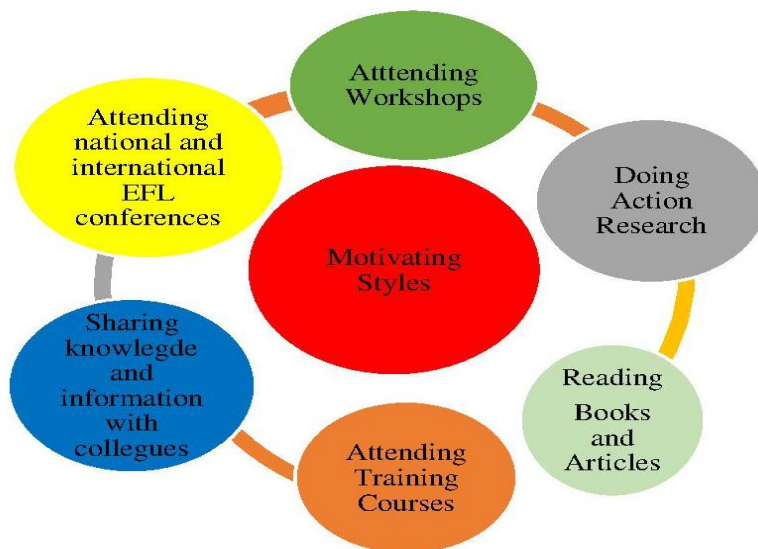


Likewise, experienced EFL teachers (Figure 3.) in this study named identical empowerment strategies which contribute to teachers' choice of motivating styles. They pointed to attending national and international EFL conferences, workshops, and training courses, reading L2 books and articles, doing action research, and sharing knowledge and information with colleagues as the most significant ways by which teachers' empowerment can augment their choice of motivating styles. For instance, an experienced teacher noted that "in my opinion, participating in various EFL and ELT workshops and national and international conferences, doing action research, and reading journal articles and books assist teachers in their choice of motivating styles".

In sum, it should be noted that while analysis of the quantitative data indicated no significant relationships between the components of teacher empowerment and motivating style, analysis of the qualitative data revealed positive perceptions of both novice and experienced groups of EFL teachers about the role of teacher empowerment in teacher choice of motivating styles. In the following section, we discussed the obtained results in light of the existing theoretical and empirical backgrounds of this study.

Figure 3

Different Ways Through Which Teacher Empowerment Contributes to Teacher Choice of Motivating Styles (Experienced Teachers)



Discussion

Considering teacher empowerment and motivating style as two important teacher factors which can potentially influence the quality of the instructional process and students' academic outcomes on the one hand, and the shortage of studies on the linkage of these two factors in both general and L2 education domains on the other hand, by adopting a mixed-methods research approach, the present study attempted to unravel novice and experienced EFL teachers' perceptions about the role of teacher empowerment in choice of motivating style. Analysis of the quantitative data indicated that no correlation between the subcomponents of teacher empowerment and CTR motivating style along the categories of novice and experienced teachers was significant. However, AS style had a significantly positive correlation with Decision Making, Professional Growth, Status, Self-Efficacy, Impact, and Total Empowerment among novice teachers, and a significantly positive correlation with Professional Growth, Status, Autonomy, Impact, and Total Empowerment among experienced teachers.

No previous study has investigated the association of teacher empowerment and motivating style, and our study was the first to investigate this relationship. Thus, there is no research for us to compare our quantitative findings with, and we do not know whether lack of significant relationship between the CTR and empowerment and also significant relationship between AS and empowerment in this study were because of the particular context of

the study, limitations of the study, or was in line with the literature. When more studies be conducted in this regard in the future, researchers might be better able to make an empirically-based rationale for the (lack) of relationship between teacher empowerment and motivating teaching style components. Nevertheless, based on the great importance attributed to teacher inner/intrinsic motivation in previous conceptualizations of teacher empowerment in the literature (Davis & Wilson, 2000; Deci & Ryan, 1985; Thomas, 2017; Thomas & Velthouse, 1990), we expected to find a significant relationship between empowerment and motivating style in this study.

Moreover, the qualitative findings pertaining to the second research question of the study revealed that novice and experienced EFL teachers interviewed in this study held positive views toward the impact of teacher empowerment on choice of motivating styles. This finding was to some extent in line with the results reported by Vermote et al. (2020) that teacher autonomy was positively correlated with teacher choice of motivating styles, denoting that when teachers feel autonomous, they might tend to employ guiding and attuning teaching behaviors (autonomy-supportive style), while teachers feeling less autonomous and more restricted might tend to adopt more dominating approaches (controlling style). Since autonomy was conceptualized as a component of the teacher empowerment construct (Short, 1994), Vermote et al.'s (2020) finding indirectly indicated the positive link of teacher empowerment with motivating style and was in line with our qualitative findings.

Moreover, qualitative findings in the present study were also partly in congruence with those of Thomas (2017), who in a longitudinal, ethnography research investigated the impact of teacher receiving support and respect from various stakeholders in educational settings including, administrators, colleagues, students, and parents on their performance in the instructional context. It should be noted that teachers' concern with receiving respect and support from others is related to the component of status in teacher empowerment conceptualization (Short, 1994). Thomas (2017) found that as teachers received more respect and support from others, they felt more empowered to help students in learning.

Finally, qualitative findings relating to the third research question of this study revealed novice and experienced EFL teachers' suggestions regarding the ways through which teacher empowerment could contribute to teacher choice of motivating styles. Such empowering strategies included participating in professional development programs, national and international conferences, and workshops; doing action and empirical research; and reading related books and journal articles, implying that both teachers themselves and educational

administrators should take necessary strides toward providing empowering conditions for EFL teachers to choose an optimal motivating style. These findings were partly in conjunction with those of Veisi et al. (2015) who examined the association of teacher empowerment with self-efficacy, which is a component of teacher empowerment according to Short (1994). They found that the association between the two was bilateral, meaning that as one increases, the other boosts as well. They also noted that as teachers' self-efficacy increases, their motivation increases too. Hence, it is possible that teachers with higher self-efficacy tend to adopt a motivating rather than a demotivating style of teaching.

In this study, novice EFL teachers articulated that participating in professional courses, conference, and workshops; doing action and empirical research; and sharing ideas with colleagues were effective strategies to empower teachers to choose a motivating style. We argue that since novice teachers are in need of gaining more pedagogical knowledge and promoting their instructional skills (Farrell, 2012), the empowering strategies found in this study can be useful for them to enhance their instructional effectiveness and choose an autonomy-supportive teaching style. Similarly, in the present study it was found that, from experienced EFL teachers' perspective, empowering strategies like participating in national and international conferences, workshop, and training courses as well as reading L2 teaching books and articles can direct teachers' toward selecting the optimal motivating style in the classroom.

These results were partly in line with those of Fang (2013) who ran a professional development program for experienced school teachers in Florida. This program focused on empowering teachers through such activities as reading and discussing relevant articles and books, participating in strategic workshops, and interacting with other professional colleagues in conferences. Their results revealed that after taking part in the mentioned program, teachers were capable of making informed pedagogical decisions based on the need of their students, and motivate their students in a more autonomous way. It should be noted that while compared to novice teachers, experienced teachers might have a better repertoire of knowledge, experience, and skills (Farrell, 2012), they still need to be empowered to expand their repertoire in order to meet their daily, continuing professional development needs, one of which can be choosing the optimal motivating style for a particular class of students.

Conclusion and Implications

This mixed-methods research study endeavored to explore perceptions of novice and experienced EFL teachers regarding the linkage of teacher

empowerment and choice of motivating styles. Analysis of the quantitative data indicated lack of significant relationships between CTR and empowerment (and its components) as well as significant relationships between AS and empowerment (and its components). Furthermore, the qualitative findings revealed that, from both novice and experienced EFL teachers' perspectives, teacher empowerment was found to influence choice of teacher motivating styles. Further qualitative findings presented that from novice and experienced teachers' vantage point, empowering strategies like attending conferences, reading books and articles, and taking part in professional development programs can contribute to teachers' choice of motivating styles.

In sum, based on these findings, no conclusive or generalizable remarks can be articulated since this was the only study that addressed the linkage of teacher empowerment and motivating style and no previous study had directly examined this relationship. Furthermore, the results of the quantitative and qualitative phases in the present study were not in line with each other. Therefore, future research undertakings are recommended to expand this fledgling area of research and test the hypothesized relationship between these two variables against further empirical evidence. Nevertheless, the qualitative findings of this study which highlighted the importance of teacher empowerment and empowering strategies for helping teachers choose a motivating style can have potential implications for different L2 educational stakeholders.

To start with, by becoming familiar with the empowerment concept and empowering strategies, EFL teachers might increase their levels of autonomy and self-motivation, and as a result, make more autonomous decisions such as choosing a motivating teaching style in the classroom. Likewise, educational authorities can attempt to empower their teachers with the hope of increasing teachers' effectiveness and consequently lead them toward making better impacts on students and the educational system as a whole. Similarly, teacher education programs can be enriched by including instructions on the concepts of teacher empowerment and choice of motivating styles to their trainees. Furthermore, such programs can be improved by practically engaging teacher trainees in such empowering activities as doing research and reading articles and books with the prospect of boosting their autonomy, impact, self-efficacy, professional growth, decision-making ability, and status, which are the main elements of teacher empowerment.

Such programs can also inform teachers about the critical role that choice of a (de)motivating style can play in students' educational performance and outcomes and how through empowering themselves, teachers can make active

strides toward choosing a autonomy-supportive teaching style and increase their instructional effectiveness. The results can be also fruitful for school/institution principals by becoming aware that imposing rules and restrictions on teachers might disempower teachers and decrease their productivity. Thus, these authorities can be more flexible, involve teachers in decision-making processes such as selecting textbooks or designing curriculum and syllabus, hear teachers' voices, and give more freedom of action to teachers in the classroom, and as a result, pave the way for teachers' more autonomous and productive performance.

In the end, the limitations of this study need to be articulated. This study was a one-shot examination of EFL teachers. Future studies can do more longitudinal studies to assess how the linkage of teachers' empowerment and motivating style may change over a period of time. Next, in this study, only interview and questionnaire were used to collect data. Future researchers can investigate this relationship using more direct instruments such as observation. Moreover, only two motivating styles (controlling and autonomy-supportive) were examined. Future studies can investigate the association of teacher empowerment with structuring and chaotic styles found in the literature. Also, due to feasibility concerns, only EFL teachers in Iran were targeted for participation in this study. Future researchers can replicate this study in other geographical contexts and with teachers of other L2s. Finally, cross-cultural studies can be conducted to see if cultural factors play any role in this association.

Disclosure Statement

The authors reported no potential conflict of interests.

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Appendix A

Short and Rinehart (1992) School Participant Empowerment Scale (SPES)

DECISION MAKING

- 64. I am given the responsibility to monitor programs.
- 18. I make decisions about the implementation of new programs in the school.
- 17. I make decisions about the selection of other teachers for my school.
- 19. I am involved in school budget decisions.
- 65. I am given the opportunity to teach other teachers.
- 53. I can determine my own schedule.
- 54. Principals, other teachers, and school personnel solicit my advice.
- 59. I can plan my own schedule.
- 57. My advice is solicited by others.
- 37. I have an opportunity to teach other teachers about innovative ideas.

PROFESSIONAL GROWTH

- 33. I function in a professional environment.
- 8. I am treated as a professional.
- 27. I have the opportunity for professional growth.
- 20. I work at a school where kids come first.
- 63. I am given the opportunity for continued learning.
- 49. I have the opportunity to collaborate with other teachers in my school.

STATUS

- 5. I believe that I have earned respect.
- 4. I believe that I am very effective.
- 12. I have the respect of my colleagues.
- 60. I have the support and respect of my colleagues.
- 28. I have a strong knowledge base in the areas in which I teach.
- 21. I believe that I am good at what I do.

SELF-EFFICACY

- 24. I believe that I am helping kids become independent learners.
- 29. I believe that I am empowering students.
- 14. I feel that I am involved in an important program for children.
- 66. I see students learn.
- 48. I believe that I have the opportunity to grow by working daily with students.
- 46. I perceive that I am making a difference.

AUTONOMY

- 25. I have control over daily schedules.
- 16. I am able to teach as I choose.
- 31. I have the freedom to make decisions on what is taught.
- 52. I make decisions about curriculum.

IMPACT

- 11. I believe that I have the ability to get things done.
- 35. I participate in staff development.
- 36. I believe that I am having an impact.
- 43. I am a decision maker.
- 56. I perceive that I have the opportunity to influence others.
- 67. I perceive that I have an impact on other teachers and students.

Appendix B

Alterman et al. (2019) The Situations in School questionnaire

1. Classroom Rules

You are thinking about classroom rules. So, you:

- Con1 1 2 3 4 5 6 7 Post your rules. Tell students they have to follow all the rules. Post the sanctions for disobeying the rules.
- As1 1 2 3 4 5 6 7 Invite students to suggest a set of guidelines that will help them to feel comfortable in class.

2. Lesson Plan

As you prepare for class, you create a lesson plan. Your top priority would be to:

- As2 1 2 3 4 5 6 7 Offer a very interesting, highly engaging lesson.
- Con2 1 2 3 4 5 6 7 Insist that students have to finish all their required work—no exceptions, no excuses.

3. Starting Class

The class period begins. You:

- Con3 1 2 3 4 5 6 7 Insist firmly that students must learn what they are taught—your duty is to teach; their duty is to learn.
- As3 1 2 3 4 5 6 7 Ask students what they are interested to know what the learning topic.

4. Motivating Students

You would like to motivate students during class. You decide to:

- Str4 1 2 3 4 5 6 7 Offer help and guidance.
- As4 1 2 3 4 5 6 7 Identify what the personal benefits of the learning material are for students' everyday life.

5. Non-Responsive Students

You ask your students a challenging, but doable question to involve them in the lesson.

However, as during the previous lesson, you get only silence, as no student answers your question. You

- As5 1 2 3 4 5 6 7 Ask students to discuss the question with their neighbor and then invite them to share their answer within their groups.
- Cha5 1 2 3 4 5 6 7 Sigh. Just give the answer yourself and move on.

6. Students Complain

At a difficult point in the lesson, students begin to complain. In response, you:

Str6 1 2 3 4 5 6 7 Show and teach them a helpful strategy for how to break down the problem to solve it step-by-step.

Cha6 1 2 3 4 5 6 7 Just ignore the whining and complaining. They need to learn to get over the obstacles themselves.

7. Needing Extra Effort

You present a difficult lesson that requires a lot of effort from the students. In doing so, you:

Con7 1 2 3 4 5 6 7 Insist firmly that “Now is the time for hard work!”

Str7 1 2 3 4 5 6 7 Say, “Because this lesson is extra difficult, I will provide you with extra help and extra assistance, if needed.

8. Anxiety Surfaces

During a class assignment, you notice that some students are showing signs of anxiety.

Sensing that anxiety, you:

As 8 1 2 3 4 5 6 7 Acknowledge that they look anxious and stressed. Invite them to voice their sense of unease.

Con 8 1 2 3 4 5 6 7 Insist that they must act in a more mature way.

9. Transition to a New Activity

One learning activity ends and you are about to make the transition to a new learning activity. You:

Cong9 1 2 3 4 5 6 7 Command the students to hurry up and to finish the old activity.

As9 1 2 3 4 5 6 7 Be patient; confirm that those who are still working hard may have the time they need to finish up.

10. Student Misbehavior

A couple of students have been rude and disruptive. To cope, you:

Con10 1 2 3 4 5 6 7 Command that they get back on task immediately; otherwise there will be bad consequences.

As10 1 2 3 4 5 6 7 Explain the reasons why you want them to behave properly. Later talk to them individually; you listen carefully to how they see things.

11. Practice Time

It is time for students to practice what they have learned. You ...

As11 1 2 3 4 5 6 7 Ask students which types of practice problems they may want to work on the most.

Con11 1 2 3 4 5 6 7 Demand that now is the time to work, whether they like it or not. Tell them that they sometimes need to learn to do things against their will.

12. Arguing Students

As the class ends, it comes to your attention that two students are arguing and offending each other. As the rest of the students leave the classroom, you ask the two students to remain so that you can:

As12 1 2 3 4 5 6 7 Take the arguing students aside: describe briefly what you saw and ask for their view and suggestions about what to do.

Con1 1 2 3 4 5 6 7 Tell them they should be ashamed of their behavior and that, if they continue, there will be sanctions.

13. Test Results

You have finished scoring a test. Several students scored low again, even though you paid extra attention to this material last week. You...

Con13 1 2 3 4 5 6 7 Insist that low scores are unacceptable to you. Tell students that they must score higher for their own good.

As13 1 2 3 4 5 6 7 Listen with patience and understanding to what the students say about the test performance.

14. Remediation

One or more students need remediation because they repeatedly failed for your subject.

You ...

Con14 1 2 3 4 5 6 7 Insist: "Try harder. Get it right. Be serious. Otherwise, there will be bad consequences."

As14 1 2 3 4 5 6 7 Say: "Okay, where might we start; any suggestions?"

15. Homework

When assigning homework, you ...

Con15 1 2 3 4 5 6 7 Make it clear that the homework has to be done well; if not, bad consequences will follow.

As15 1 2 3 4 5 6 7 Offer a number of different homework exercises (e.g., three) and you ask students to pick a few of them (e.g., two).

Appendix C

EFL Teachers' Interview Questions

Section 1: Teachers' Background Information

- Could you kindly tell us about your teaching qualifications?
- How long have you been teaching English?
- Which levels of proficiency have you taught?

Section 2: Teachers' Perception of Empowerment

1. What is your understanding of teacher empowerment in ELT? Could you please elaborate?
2. In your perspective, what factors can influence the level of teacher's empowerment?
3. What challenges do Iranian EFL teachers face regarding their empowerment?

Section 3: Teachers' Perception of Motivating Styles

1. What do you think of teachers' motivating styles? Can you explain about that with examples?
2. Do you think that giving decision-making power to EFL teachers affects their choices of motivation style? How?

3. In what ways do you think providing teacher professional development courses can affect teachers' choices of motivating style?
4. Do you think that if teachers feel they are capable of helping students, their choice of the motivation style will change as well?
5. What is your opinion about the influence of teacher autonomy on the motivating style?
6. Do you think that when the teachers receive enough respect from their colleagues, administrators, parents, and others, their choice of motivating style will change/improve? How?

Section 4: Teachers' Empowerment and Motivating Styles

1. Do you think that EFL teacher's level of empowerment has an impact on their motivating style? If yes, how?
2. What activities can EFL teachers do to maintain or promote their empowerment level to contribute to their choices of motivating style?

The Concept of *betrayal* in the consciousness of the English: A psycholinguistic study

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Abstract. The study attempts to reveal verbal, that is, lexically materialised associative responses of English respondents to the word stimulus 'betrayal'. As the word association test is considered a reliable way of studying the content of the national mental image of a specific concept, the method allowed to receive a collective linguistic representation of the researched concept reflected in the consciousness of the tested participants. The association test was held with undergraduate and postgraduate students, respondents with bachelor's and master's degrees who were native speakers of English and residents of London (UK), aged 18 to 25 (365 males, 411 females). The test results show that the English associate the concept of *betrayal* with a traitor. They clearly identify the subjects of betrayal – specific persons (historical, public, political figures, heroes of cartoons and literary works) with whom the objects of betrayal were in a close, trusting relationship. The characteristic features of traitors are treachery, lack of empathy, and the desire to hurt deliberately. The motivations behind such persons' behavioural scenarios are deception, fraud, and searching for personal gain. In the consciousness of English speakers, such behaviour is verbalised as a shameful act, a crime that must be punished. Betrayal causes negative emotions and is characterised as harmful, destructive, and disgusting.

Keywords: word association test, consciousness, concept, verbalisation, betrayal, the English.

Іванченко Марія, Колегаєва Ірина. Концепт «зрада» у свідомості англійців: психолінгвістичне дослідження.

Анотація. У дослідженні зроблено спробу виявити вербальні, тобто лексично матеріалізовані асоціативні реакції респондентів-англійців на слово-стимул «зрада». Оскільки асоціативний експеримент вважають надійним способом вивчення змісту національної ментальної картини світу певного концепту, метод дав змогу отримати колективну мовну репрезентацію досліджуваного концепту, відображену у свідомості учасників експерименту. В асоціативному експерименті взяли участь студенти та

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аспіранти, респонденти зі ступенями бакалавра та магістра, які є носіями англійської мови та проживають у Лондоні (Великобританія), віком від 18 до 25 років (365 осіб чоловічої статі, 411 осіб жіночої статі). Результати тесту засвідчили, що англійці асоціюють поняття “betrayal” зі зрадником. Вони чітко ідентифікують суб'єктів зради – конкретних осіб (історичні, громадські, політичні діячі, герої мультфільмів та літературних творів), з якими об'єкти зради перебували у близьких, довірливих стосунках. Характерними рисами зрадників є підступність, відсутність емпатії та бажання навмисно завдати болю. Мотивами поведінкових сценаріїв таких осіб є обман, шахрайство та пошук особистої вигоди. У свідомості англомовних людей така поведінка вербалізується як ганебний вчинок, злочин, який має бути покараний. Зрада викликає негативні емоції та характеризується як шкідлива, деструктивна й огидна.

Ключові слова: асоціативний експеримент, свідомість, англійці, концепт, вербалізація, зрада, англійці.

Introduction

In recent decades, the person has become the criterion for setting goals and choosing research methods in linguistics, sociolinguistics, psycholinguistics, neurolinguistics, and other sciences. Shifting the scientific focus involves terms and concepts borrowed from traditional human sciences but also methods of scientific research. Within the framework of the anthropocentric paradigm in modern linguistic science, one of the leading places is occupied by the association test, in which the units of analysis are associations.

Associations are the focus of linguistic science attention because they are determined by the very nature of the linguistic sign, the meaning of which is not fixed but depends on certain subjective and objective factors and is not identical to how it is presented in dictionaries (Encyclopaedia Britannica, 2016). The connection between the concept and its symbolic expression occurs mainly through the word. Moreover, the word is connected with the concept (denoted) through several associations. Under such conditions, the analysis of associations gives the researcher information not only about the principles of the environment actualisation by language units but also about the worldview of the particular language community, mentality, motives of behaviour, evaluations, stereotypes and culture of its representatives.

There is nothing in social life that is not in individual minds, but almost everything they have is taken from society (Durkheim, 1998, p. 359). Considering this, the association test data can reveal the mechanism of concept verbalisation (Ryspayeva et al., 2024). It allows simulation of the “associative profile” of consciousness images specific to this culture and language, which integrates mental and sensory knowledge possessed by a particular ethnic group.

Concepts represent cultural values and are key components of national culture. They reflect cultural realities, the specifics of a particular nation's worldview, and life philosophy's most important categories and attitudes (Evans, 2009). Concepts are dynamic units of an individual's cognitive and communicative activity that function spontaneously and are subject to the laws of a person's mental life.

The association test is considered one of the most effective techniques of concept study; it allows one to identify the most significant cognitive features of the concept relevant to the current state of consciousness (Martinek, 2011, p. 29). In this respect, this study explores the conceptualisation of betrayal by the modern English youth in their cultural value system from the psycholinguistic perspective. Interpreting the association test results makes it possible to outline the concept structure's components and establish the concept's value for representatives of a particular language community.

Method

Testing is considered one of the leading methods of most scientific research. In linguistics, this method of researching various language issues enables the description of linguistic phenomena features in managed and controlled conditions arranged in advance.

The association test occupies a special place among other ways of reconstructing concepts in consciousness, primarily since it allows to reveal of the mental lexicon of the language community, its verbal memory and cultural stereotypes. Language research should include more than just the analysis of multi-genre discourses. It must be supplemented with the analysis of associations – forms of language memory reflection. Native speaker, being a participant in the test, acts not only as an informant who reports on their knowledge of the language but also as a respondent with their system of values and motives (Kuzembayeva, 2023). It allows us to “penetrate” the deep conceptual structures of consciousness based on archetypes, myths and symbols (Mizin, 2008, p. 71).

An association test involving the first response to the stimulus word determined the conceptualisation of betrayal in the consciousness of the English. This test ensures “full-fledged purity” of responses to the directly offered stimulus word and maximum reliability of the obtained results. The results' validity is directly proportional to the number of informants, which ensures the separation of frequent associations from single-individual ones and thus “reduces subjective psycholinguistic indicators” (Mizin, 2016, p. 36).

Participants

Considering the above, residents of London (England) aged 18 to 25 (365 males, 411 females) and native speakers of English with different educations were involved in testing: college and university students, respondents with bachelor's and master's degrees. The association test was held at Kingston University within the Erasmus+ program (Grant Agreement No. 2020-1-UK01-KA107-078410).

Each participant received a questionnaire letter with an accompanying explanation and brief instructions for filling it out. The questions were formulated clearly and comprehensibly for respondents of different social statuses, ages, education, and genders.

The introductory part of the questionnaire briefly explained the course and purpose of testing. After that, the participants indicated information about their age, education and gender. The main part contained questions about the association with the stimulus word, which nominates the researched concept. The test participants had no restrictions regarding interpretations, so both one-word responses and detailed answers were obtained.

The results of the test were grouped according to the thematic principle. Ten semantic blocks of associations were pointed out. The next step was to analyse data using a quantitative indicator, which allowed simulation of the association field. The nucleus and the periphery were distinguished within the structure of the association field. The nucleus includes the most frequent responses to the stimulus word. Associations within the nuclear association field are also called "associative norm", "culturally specific", "standard", or "stereotypical", that is, those that give an idea of collective knowledge. There is a core zone within the structure of the association field. Associations with lower quantitative indicators form this part compared to the components of the nuclear zone of the field, but they are pretty significant. The periphery includes responses with a frequency coefficient below the average, including single responses. The periphery of the field is divided into close and far.

Results and Discussion

The association test revealed 776 responses to the stimulus word "*betrayal*." After processing the received data, ten thematic groups of associations that reveal the content of the concept BETRAYAL were pointed out (the number of responses to the stimulus word "*betrayal*" is indicated in brackets).

Associations related to the “performer” (192 responses).

The overwhelming majority of responses to the stimulus word *betrayal* among the respondents are expressed by the word *friend* (15 responses) and its combination with the adjectives *close*, *old*, and *ex* (28 examples).

In the consciousness of the English, traitors are friends or simply human beings (*person*, *men*, *people*) with whom the object of betrayal socially interacts (*partner* (9), *romantic partner* (5), *spouse* (5), *fathers* (2), *my dad* (4), *my girlfriend* (2)). On the other hand, it is an adversary (*enemy* (3)), a dishonest person (*fake* (1)), a scoundrel (*snake* (1)), a criminal (*criminal* (4), *outlaw* (2), *pirates* (1)), a spy rooted in foreign intelligence (*spy* (8), *mole* (10), *illegal* (4)).

Words-responses, expressed by adjectives, mark the respondents' attitude to the subjects of betrayal. Relations with these persons are based on trust (*close*, *personal*), but the personal characteristics are opposite: *disloyal* (2) and *selfish* (2).

So, within this group of responses, the opposition “friend : : enemy” is clearly outlined. So, on the one hand, a betrayer is a close, trusted person: *friend* (n), *partner* (n), *close* (adj), *personal* (adj). On the other hand, a person who poses a threat: *traitor* (n), *enemy* (n), *spy* (n), *mole* (n), *criminal* (n), *pirate* (n), *fake* (n), *snake* (n), *selfish* (adj), *disloyal* (adj).

Some of the responses refer to specific persons:

- the biblical character: *Jude* (4);
- cartoon characters: *Sasuke Uchiha* (2) is a character from the manga and anime series “Naruto”;
- historical figures who acted against their state: *Benedict Arnold* (10), *Guy Fawkes* (4), *William Wallace* (1), *Edward Snowden* (4), *Anne Boleyn* (1);
- political figures involved in scandals related to the presidential elections: *Richard Nixon* (3) was the 37th president of the United States of America (1969-1974) from the Republican Party—the only president in this country's history who resigned early. The reason for the compilation of powers was the Watergate scandal; *Donald Trump* (4)—after losing the presidential election for a second term in 2020, tried to deny the election results.
- public figures who had extramarital affairs: *Adam Levine* (5) – American singer, actor, vocalist and guitarist of the band Maroon 5; *Ned Fulmer* (5) – American comedian; *John Mulaney* (2) – an American stand-up comedian, actor, writer and producer; *Prince Charles* (4), *Bill Clinton* (4) – cheated on their wives.
- political figures participating in a conspiracy against state figures: *Marcus Junius Brutus* (1) is one of the most famous political figures of ancient Rome in the 1st century BC. After Gaius' victory, Julius Caesar supported him and later enjoyed significant privileges from him. He was one of the organisers

and executors of the conspiracy against Julius Caesar in 44 BC. According to evidence, it was M. Brutus who dealt the fatal blow to J. Caesar (Freeman, 2008).

Responses that reflect social institutions that are objects of betrayal (154 responses).

Betrayal is an element of relations between people in a community, state, and society. The responses '*country*' (6) and '*state*' (4) were obtained in the conducted association test. Respondents also associate betrayal with the political system *monarchy (royalty)* (6), state bodies *government* (10), and *authority* (3).

To this group belong lexeme *allegiance* (2), the phrase “*going against your country*” (2). Treacherous behaviour of the state leadership towards its subordinates is associated with Marie Antoinette's phrase, “*let them eat cake*” (2). According to historical data, the queen responded to the news that the peasants in her kingdom were starving because they had no bread. Over time, this phrase symbolised the royal government's complete disregard for the people's problems.

Respondents' answers also mention groups of people united by common views, activities, and interests: *community* (3), *group* (1), *movement (you belong to)* (2), and *leaders* (2).

The stimulus word *betrayal* is associated among English youth with social relations that are formed and function successfully based on mutual sympathy and common interests (Eve, 2002, p. 390). Respondents mentioned *affair* (28), *marriage* (14), *relationship* (15), *friendship* (9), *couple* (8), *family* (5), *lovers* (4), *family related* (8), i.e. such types of social bonds, which are based on openness, sincerity, trust and support (Vela-McConnell, 2017, p. 231).

Accordingly, *betrayal* is destructive for the mentioned forms of social interaction since it does not meet the expectations of trusting relationships. Representatives of the language community compare the negative consequences with the *family crisis* (7), *the end of friendship* (10) and *undermining the place of living (family, friends)* (1).

Associations by contiguity refer to events caused by betrayal (85).

For the Englishmen, betrayal is primarily associated with such semantic characteristics as treachery and surprise, which are associated, on the one hand, with the limitation of visual contact. Residents compare these features with the back, a part of the body that a person cannot visualise without outside help, or a part of space that is out of sight (*from the blind side, in the back*). The Englishmen associate the impossibility of visual contact with such semantic characteristics of betrayal as treachery and surprise.

On the other hand, betrayal is a physical interaction of bodies applying force – a blow, usually with a weapon. Thus, 17 responses are phrases that include the verb *to stab*, which, according to the etymological dictionary, came into usage at the end of the 14th century with the meaning “*thrust with a pointed weapon*” (ED). These are associations based on a comparison of betrayal with a deep wound (in the back): *backstabbing* (12), *being stabbed in the back* (5), *to being blindsided* (1).

Participants of the test associate *betrayal* with events involving the use of weapons and violence, verbalised by the words *war* (*war crimes, civil war*) (12) and *fight* (5). Associations of *betrayal* with firearms also refer to military actions – *gunpowder* (1), *firework* (2), verb *fire* (4), and adjective *military* (2). A subgroup of words-responses is singled out, denoting events that involve changes in the existing order's development and course of events: *revolt* (4) and *political upheaval* (10).

One response, *January 6* (1), refers to the events of 2021, when supporters of Donald Trump, after his defeat in the next presidential election, organised a protest and attacked the US Capitol building in Washington. Protesters did not recognise the election results and demanded to leave Donald Trump as president.

The English perceive betrayal as a phenomenon that destroys internal unity and wholeness. Such associations as *divorce* (3), *break up* (6), and *break boundary* (2) refer to the concept of wholeness, which, summarising the various dimensions of human existence, emphasises the phenomenon of everyday life as the original aspect of human existence (Opeida, 2015, p. 240), which enables life itself. Accordingly, the “violation of wholeness” is the result of a destructive process that leads to the destabilisation of human existence.

Associations related to the idea of betrayal as an irrelevant result of the trust process (76).

Numerous responses relate to the perception of betrayal as an irrelevant result of the trust process (76 responses). “Trust” is a key concept according to the social exchange theory (Khyzhniak, 2017, p. 13). It is the main condition of social interaction, its guarantor, and its formation follows the principle of “expectation-justification.”

Thus, 53 phrases and word combinations contain in their structure noun *trust*, that is, “firm belief in the reliability, truth, or ability of someone or something (OLD)” and its derivatives *to trust* – *trusted* – *trustworthy*. For example: *break of trust* (18), *loss of trust* (10), *losing trust* (5), *against values* (3), *loss of trust* (4). Part of the word combinations is formed with the help of

lexical units that are synonyms of the mentioned noun – *faith, value, support* (*against values* (3), *undermined faith* (2), *does not support* (1)). The inconsistency of the obtained result with the desired one is expressed by combining the key concepts with the lexemes *break, breach, loss, losing, lost, against, take away, behind*, which are united by the common seme “to deprive”. The core feature of these responses is seme “one who cannot be trusted”.

Associations by contiguity that explain emotions caused by betrayal (75).

One of the oldest mental functions of a man is the emotional reaction to external and internal stimuli. In this way, a person reveals their attitude to the phenomenon of the surrounding reality and estimates it.

Responses associating emotions with a physical feeling: *pain* (6), *hurt* (18), *hurtful* (4), and *heartbreak* (2) give a particular expressiveness to *betrayal*, which explains the prevailing majority of responses *hurt feelings* (18), *worst feeling* (1) among other language expressions of emotions. Failure to meet expectations in a large number of respondents is associated with disappointment, accompanied by such destructive feelings as *regret* (2), *hatred* (5), *anger* (8), and *abhorrence* (1). The consequences of betrayal in a relationship are *depression* (2) and mental pain, which in English is expressed by the lexeme *sadness* (15).

Adjacency responses reflecting behavioural scenarios (61).

The semantics of irrelevance is also supported by associations related to behavior scenarios classified as deviant. From the sociological point of view, such behaviour generates social contradictions and is characterised as a deviation from generally accepted norms and rules of behaviour (Ulmer, 2000). For the English, *betrayal* is associated with such deviant behavioural scenarios as *cheating* (45), *deceiving* (2), *violation* (2), *wrongdoing* (2), *lying* (9), and *leaving* (1).

Associations by contiguity, referring to punishment (45).

Condemnation of *betrayal* by representatives of the English-speaking society is evidenced by numerous associations that refer to the means of influencing someone who has committed a crime – punishment. The participants of the experiment revealed such verbal responses as “deprivation of freedom” – *jail* (25), *prison* (5), verb *to commit* (*put into prison*) (1); “punishment, execution” – *guillotine* (3), *execution* (2), *punishment (by death)* (5), *revenge* (4); “injustice” – *false accusation* (2), *injustice* (2).

Associations related to the idea of betrayal as a crime (41).

Among the associations obtained as a result of the experiment, the group “betrayal – crime” clearly stands out, that is, “violation of the type of interaction of the individual with the social environment, which is stable for this system” (Ulmer, 2000, p. 27). The most significant number of responses are words that contain some “false” in their structure: the nouns *crime* (18), *corruption* (1), *violence* (2), the adjective *unlawful* (2), and *criminal* (1). This group includes the association *scandal* (2), which is defined in the Oxford dictionary as “an action or event regarded as morally or legally wrong and causing general public outrage” (OLD).

The shame of *betrayal* among English youth is associated with behaviour that contradicts society's requirements. Seven responses obtained in the experiment are phrases formed with the preposition *against* and nouns *law*, *rule*, and *option*: *against the law* (3), *not always right* (2), *going against a set of rules* (2), and *against the option* (2).

Axiological associations (41).

Identifying the evaluative component in the semantic structure of the stimulus word *betrayal* involves a group of axiological associations. The vast majority of the received responses, 15 – adjective *unfaithful*.

The rest of the responses are lexical means by which the respondents convey a negative attitude towards the phenomenon of betrayal. Almost equally (2–5 responses), betrayal is characterised as an *ultimate* (2), *unpure* (5) phenomenon that causes disgust (*disgusted* (2), *bad* (4)), which is devoid of integrity – *detached* (1), and compared with *darkness* (2).

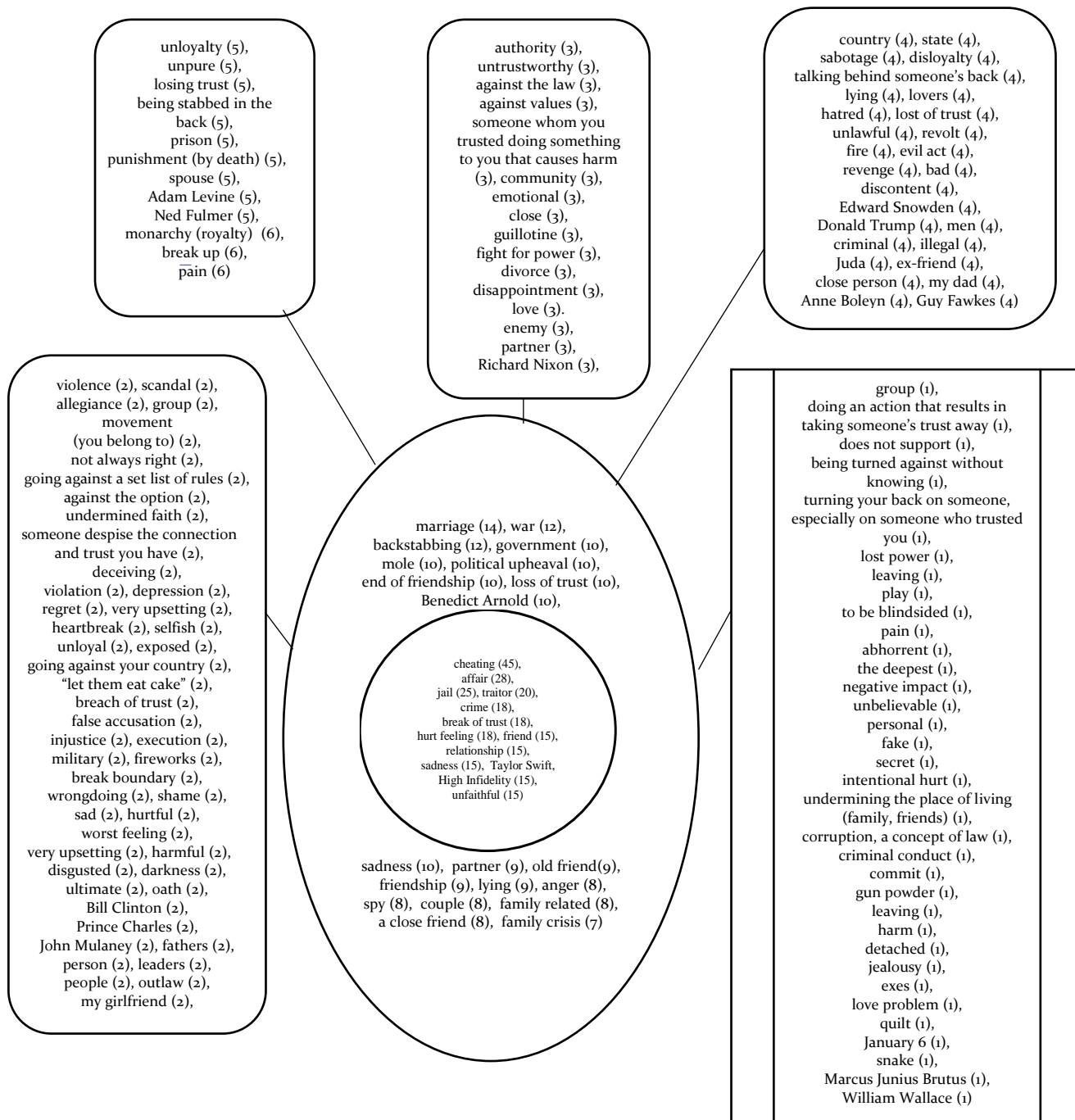
Associations by contiguity (9).

The group of associations by contiguity is the least numerous (9). According to the theory of memory, this type of association reflects the connection between objects and phenomena simultaneously in the space-time continuum in the human psyche. These are *love* (3), *love problem* (1), *oath* (2), *jealousy* (1), *exes* (1), and *guilt* (1).

The obtained data were ranked by quantitative indicators and presented as an association field. To simulate the association field of the stimulus word *betrayal*, the entire array of the obtained results was processed according to the principle of frequency. The nuclear of this field, which the most frequent associations form, was outlined.

Figure 1

Association Field of the Concept Betrayal in the Consciousness of the English



The core zone or basic layer in the structure of the outlined field is formed by the associations, the quantitative indicator – 14 – 7 responses (31 examples). Verbalised responses are presented on the periphery of the association field. The total number is 149.

These are associations with the quantitative indicators from 6 to 1 responses. The periphery of the association field of the concept of *betrayal* is, in turn, divided into close and far. The close periphery includes associations

indicated by 6 to 2 respondents (111 responses). The far periphery is formed by single or individual responses – 38 associations in total. Figure 1 represents the simulation of the association field of *betrayal* in the consciousness of the English participants.

Conclusions

The association test results proved that the concept of *betrayal* was actively presented in the consciousness of the English respondents. The obtained results were sorted into ten thematic groups of associations. After statistical data processing, the association field of the concept of *betrayal* was simulated. The nuclear of the field, according to quantitative indicators, includes responses which verbalise *betrayal* as a crime – *cheating* (45), *jail* (25), *crime* (18); a phenomenon related to interpersonal relationships – *affair* (28), *friend* (15), *relationship* (15); violates trust – *traitor* (20), *break of trust* (18), *unfaithful* (15); causes negative emotions – *hurt feeling* (18), *sadness* (15).

The core zone or basic layer in the structure of the outlined field is formed by the associations, with the quantitative indicators 14 – 7 responses: which concern responders' personal life – *marriage* (14), *end of friendship* (10), *sadness* (10), *partner* (9), *old friend* (9), *couple* (8), *family related* (8), *close friend* (8), *family crisis* (7); socially important phenomena – *war* (*war crimes*, *civil war*) (12), *government* (10), *mole* (10), *Benedict Arnold* (10), *political upheaval* (10).

The periphery of the association field includes responses revealing the connection of *betrayal* with humiliation, devaluation, desire to hurt, immoral behaviour, and the names of perpetrators. The unacceptability of such actions and deeds is expressed as the need to apply punishment–imprisonment or the death penalty. Many associations identify the evaluative component in the semantic structure of the concept of *betrayal* and characterise this phenomenon as harmful, destructive, unfaithful, and disgusting.

Disclosure Statement

The authors reported no potential conflict of interests.

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Prosodic Realization of Focus in the Albanian Language

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Abstract. Prosodic tools have been treated as main elements for focus marking in different languages. Among them, stress is assumed to have a key role in the realization of focus. Researchers such as Selkirk (1995) assume that focus realization occurs when stress interacts with syntactic and phonological components. However, researchers such as Truckenbrodt (1999), Samek-Lodovici (2005; 2006), Féry (2013; 2016), Lee (2013), Yan et al. (2022) disagree with his hypothesis as, according to them, focus is realized through interactions between prosodic structure, syntactic structure, stress, and information structure. According to the latter, this realization of focus can be explained through three constraints: align XP, wrap XP, and stress-focus, which arose from Optimality Theory. Therefore, in order to investigate the prosodic realization of focus in the Albanian language, we will rely on these notions of limitations to see the interactions of different linguistic domains in the realization of informative and emphatic focus through emphasis in our corpus, which consists of: match commentary Albania vs Serbia (2014) and the broadcast *Pressing* (May 30, 2022). The method used in this work is based on the analysis of the Optimality Theory of sentence stress which integrates insights from the generative linguistics, through which interactions between focus prominence and phrases are highlighted. The results provide evidence that the interactions of these syntactic and prosodic constraints influence the Albanian speaker to realize the focus in different positions within the sentence.

Keywords: *focus, stress, information structure, align-XP, stress-focus, match Albania-Serbia (2014), broadcast "Pressing".*

Якупі Кендреса. Просодична реалізація фокусу в албанській мові.

Анотація. Просодичні засоби розглядають як головні елементи для позначення фокусу в різних мовах. Вважають, що наголос відіграє ключову роль у реалізації фокусу. Ряд дослідників, серед яких Селкірк (Selkirk, 1995), припускають, що реалізація фокусу відбувається, коли наголос взаємодіє з синтаксичними та фонологічними компонентами. Однак інші дослідники, як-от: Truckenbrodt (1999), Samek-Lodovici (2005; 2006), Féry (2013,

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2016), Lee (2013), Yan і колеги (2022) не погоджуються з його гіпотезою, оскільки, на їхню думку, фокус реалізує взаємодія між просодичною структурою, синтаксичною структурою, наголосом та інформаційною структурою. Таку реалізацію фокусу можна пояснити за допомогою трьох умов: align XP, wpar XP та наголосу-фокусу, які походять із теорії оптимальності. Тому, аби дослідити просодичну реалізацію фокусу в албанській мові, автори спираються на ці поняття обмежень, щоб побачити в обраному корпусі, який представлений коментарями матчу Албанія -- Сербія (2014 р.) та передачею Pressing (30 травня 2022 р.), взаємодію різних лінгвістичних доменів у реалізації інформативного та емпфатичного фокусу за допомогою наголосу. В основі цього підходу лежить аналіз наголосу в реченні в контексті теорії оптимальності, яка інтегрує ідеї генеративної лінгвістики, за допомогою якої висвітлено взаємодію між виділеністю фокусу та слово-сполученнями. Результати дослідження свідчать про те, що взаємодія цих синтаксичних і просодичних обмежень впливає на те, як носії албанської мови реалізують фокус у різних позиціях у реченні.

Ключові слова: фокус, наголос, інформаційна структура, align-XP, наголос-фокус, матч Албанія-Сербія (2014), передача "Pressing".

Introduction

Background

In linguistic literature, prosody has been treated as an element that has a key role in the encoding of information structure (IS) (Lambrecht, 1994; Selkirk, 1995; Samek-Lodovici, 2005; 2006; Lad, 2008; Büring, 2010; 2016; Féry, 2010; 2013; 2016; Lee, 2013; Kügler & Calhoun, 2020; Yan et al., 2022). The studies that have been done on prosody as a marker of focus can be divided into two main approaches that are related to each other in many ways: 1) The first line of work focuses on the relationship between prosodic features and the informational status of the constituents in the discourse (Chafe, 1976; Lambrecht, 1994; Frascarelli & Hinterhölzl, 2007). The main goal of these works is to determine whether the informational status of a referent is related to specific prosodic features, especially the presence or absence of stress. 2) The second line deals with the role of sentence stress (the so-called nuclear stress) in identifying the informative focus (Heinz & Moroni, 2018). In both approaches to the study of prosody in relation to focus, the most studied prosodic tool to mark focus is the presence of (nuclear) stress. As the focus word in an utterance is assumed to be more prosodically salient (e.g., Selkirk, 1995; Ladd; 2008; Büring, 2010; 2016; Calhoun, 2010). Phonologically, a word is the most salient in an utterance because its main stressed syllable is the head of the larger prosodic phrase of which it is a part (usually the intonational phrase, ι) (Ladd, 2008). The head of the phrase ι carries a nuclear stress. If a syntagm ι is chosen as the focus of a sentence S, the

highest stress in S will be on the syllable (or mora, as in the case of Albanian) of the syntagm 1. This prominence-based emphasis is signaled by phonetic and phonological cues that increase the prominence of a word relative to others in the utterance. Phonetic cues include higher fundamental frequency (fo), greater fo movement, lengthening, increased intensity, and higher spectral tilt in speech. Of these, fo signs in relation to the focus are the most studied and are important from the perceptual point of view (Kügler & Calhoun, 2020).

Therefore, since stress is a prosodic feature that directly interacts with focus domains, as Samek-Lodovici (2005) also proposes for each XP_{Foc} and YP in the focus domain of XP_{Foc} , XP_{Foc} is prosodically more salient than YP.

To further explain how stress marks focus, Selkirk (1995) proposes a Basic Rule of Focus that states that "a stressed word is marked with F(ocus)." Selkirk then proposes the following three rules of "focus projection":

1. The F-marking of the head of a phonological phrase licenses the F-marking of the phrase.
2. F-marking an internal argument of a header licenses the F-marking of the header.
3. The F-marking of an earlier trace left by NP- or wh-movement licenses the F-marking of the trace.

To analyze what Selkirk (1995) said, we take an example:

Vajza bleu ushqim Foc[për]F] [qentë]F]F]FOC.

Eng. The girl bought food Foc[for]F] [dogs]F]F]FOC.

The F-marking of the preposition *për* (eng. *for*) licenses the F-marking of the prepositional phrase, and so on. The F-marking of the direct object *ushqimin* (eng. *food*) licenses the F-marking of the verb and thus of the verb phrase. This theory of focus projection hypothesizes that the F-marking of the focus of a sentence is licensed by a chain of F-marked constituents, at the end of which is the word that carries the stress.

From these, we understand that if a verb or an object is stressed, then focus projection licenses the interpretation of the entire VP as focus. According to the Basic Rule of Focus, a stress on the verb means that the verb is marked with an F(ocus). According to rule (a), after the verb is marked with F (ocus), i.e., it acquires focus status, the entire VP is also licensed to enter the focus domain. Rule (b) ensures that the F-marking of the antonym licenses the F-marking of the verb, which, in turn, according to (a), licenses the F-marking of the VP. The F-mark of the VP, according to Selkirk, licenses the F-mark of the entire sentence through the licensing of various intervening heads. However, if the subject is stressed, focus projection to other sentence elements is blocked

because the subject is an external argument, and neither (a) nor (b) license projection from external arguments. Rule (c) aims to explain why the projection containing the subject is focused.

Thus, Selkirk's (1986) theory of syntax-based focus assumes that a maximal projection approximates a phonological phrase and a sentence approximates an intonation phrase.

However, all the work done by Selkirk (1995) was criticized because he always equated a syntactic constituent with a prosodic constituent and he failed to explain how stress affects within a syntactic constituent, how focus permeates from one syntactic constituent to another syntactic constituent, or how focus is narrowed within a syntactic component. In other words, he did not achieve the goal of explaining how the other fields also interact in the prosodic realization of the focus.

Authors such as Truckenbrodt (1999), Samek-Lodovici (2005, 2006), Fery (2013), Lee (2013), and Yan et al. (2022) hypothesize that the focus realization process occurs due to interactions between prosodic structure, syntactic structure, stress, and information structure. Therefore, according to them, this realization of the focus can be explained through three constraints: Align XP, Wrap-XP, and Stress-XP, which were born from the Theory of Optimality.

Literature Review

Alignment (Align XP)

Focus generally tends to be marked by aligning prosodically with the right or left edge of a prosodic domain. In the alignment of a focused constituent and a prosodic constituent, morpho-syntax is also involved, as the edges of prosodic constituents often coincide with the edges of syntactic constituents (Fery, 2013). Alignment is defined as the correspondence between the edge of a syntactic and/or phonological component and the focused part of the sentence. In principle, as stated above all languages tend to align the focus to one end of a syntagma- ι . According to Fery (2013), below are the two ways, explaining how focus is marked through alignment:

- a. ALIGN-FOCUS R, ι -PHRASE R >> ALIGN-FOCUS R, ϕ -PHRASE R
- b. ALIGN-FOCUS L, ι -PHRASE L >> ALIGN-FOCUS L, ϕ -PHRASE L

But a group of languages, such as English, Italian, but also Albanian tend to align the focus with the right end of an ι -phrase. As Samek-Lodovici (2005) also proposes that a focused component is found at the right end of an intonational

phrase as a result of a STRESS-FOCUS constraint, since in languages that have canonical order SVO (with final stress) the stress is assigned to the end to the right of a phrase, and the focus is aligned so that the stress falls into focus. As in the tabel below.

Table 1

Stress Is Aligned to the Right of a I Phrase So That It Falls on the Focus

(x) I	
(x) P	Context: <i>What has Drini done?</i>
Drini [has swum] FocP			

To answer the question above “What did Drini do?” (alb. *Çfarë bëri Drini?*), the focus affects a single component in the answer, namely the one that corresponds to the whole question, i.e. the complete VP of the corresponding answer “he swam” (alb. *notoi*). Considering that this VP has the focu statute, it is aligned to the far right, to match the emphasis. This is so for the reason that he SF constraint penalizes those competitors who fail to emphasize the focus. So, the far right focus occurs because the main stress is supposed to be pushed further to the right by prosodic constraints and this in turn pulls the focus best to satisfy the STRESS-FOCUS focus constraint.

But in some languages, like the Albanian language, the focus is not always aligned to the right due to some syntactic and prosodic restrictions that can block it. According to Samek-Lodovici (2005, p. 704) there are cases when the focus cannot be perfectly aligned for syntactic reasons. So, focus cannot always precede right-shifted components. We are taking an example in the Albanian language:

//Edhe brenda ktij repi në Kosov ka [BËRLLOG]FocP artistik// (broadcast Pressing, May 30, 2022)

Eng. //Even within this rap in Kosovo there is the [RUBBISH]FocP artistic//

In this example only the NP is inserted within the focus domain, it is not aligned all the way to the right of the edge of the syntactic constituents. This happens because the syntactic rule in the Albanian language does not allow, in this case an AP cannot be before an NP, as the sentence comes out as ungrammatical. As can be seen in this case, the Align Foc, R restriction is violated, but also another Wrap-XP restriction, which we will talk about below.

The Constraint WRAP-XP

The Align XP constraint interacts substantially with another constraint, called WRAP-XP (Truckenbrodt, 1999, p. 229). This restriction requires that:

Each XP is covered with a phonological phrase (ϕ).

By interacting with the alignment constraint, WRAP-XP conflicts with some (though not all) of the constraints required by ALIGN XP, R. Below are some of the four-syntax configurations of syntactic components it presents us with Truckenbrodt (1999), which are derived from the ALIGN-XP alignment, R, but which violate the WRAP-XP constraint:

Reaction of WRAP-XP to structures derived by ALIGN-XP, R

- | | | |
|--|--|-----|
| <p>a. * ()_P ()_P
 [XP₂ X₁]_{XP₁}</p> | <p>b. ✓ ()_P
 [X₁ XP₂]_{XP₁}</p> | (1) |
| <p>c. * ()_P ()_P
 [X₁ XP₂ XP₃]_{XP₁}</p> | <p>d. ✓ ()_P ()_P
 [XP₁ Fct XP₂]_{FctP}</p> | |

The structures of the left syntactic components in (a, c) violate the WRAP-XP limit. In the structure under a., the boundary placed to the right of XP₂ is favored by ALIGN-XP, R, but not by Wrap-XP, since this constraint does not cover two syntactic constituents that have dependency ratios on two phonological constituents (ϕ). While under (c) ALIGN XP, R favors the inner boundary ϕ after the first complement. However, the syntagm resulting in two separate ϕ syntagms conflicts with WRAP-XP, since the larger XP₁ projection is not wrapped/covered with an ϕ syntagm in this structure.

A right-symmetric structure as in (b,) does not lead to this conflict between ALIGN-XP, R and WRAP-XP. Here a single ϕ phrase allows the head and the following complement both XP₁ and XP₂ to be right linked by a ϕ phrase, while XP₁ is covered in a single ϕ phrase and XP₂ is covered in a single ϕ phrase.

To explain the violation of Wrap-XP limitation in the Albanian language, we take an example:

- E [preu]FocP mollën me thikë.
 Eng. He [cut]FocP the apple with a knife.

This grammatical structure resembles the case given under (c), according to which V as a main projection is not allowed to enter within the boundaries of the same phonological phrase with its complements.

Method

To see how the prosodic focus is realized through accent in the Albanian language, we will also analyze the interaction of three main constraints: Align-XP, Wrap-XP, Stress-Focus, which also explain the interaction of different linguistic domains. We will investigate the cases where these restrictions are violated, therefore, the examples taken mainly belong to sentences with non-canonical order in which the words that receive the stress are identified first. The stress in the Albanian language falls on the penultimate *mora*, not on the syllable (Rugova, 2019). Then, the informative focus is identified, which is analyzed in three syntactic positions, as well as the emphatic focus which can be realized in different positions and components.

Consider the following example is taken from the *broadcast Pressing* (May 30, 2022):

Si: // [Flitet] FocP për nxitje t urrejtjes //

Eng. Si: // There [is talk] FocP of incitement to hatred //

Table 2

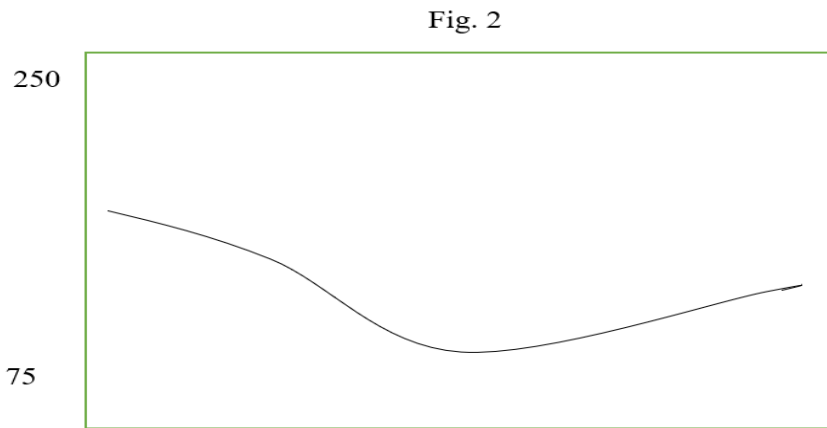
Matching Stress-XP with the V (verb) of the Sentence

1. fronting focus	Stress-XP, R	WRAP-XP	Align-Foc, R
(x) I	✓	*	✓
(x _) P			
[Vf [vp t[PP] GP]]			

As can be seen in Table 2, the WRAP-XP restriction is violated in this example, due to the syntactic structure that Albanian has within a VP sentence, we have two sentences PP and GP, one as a complement of V and the other (GP) as a determinant of complement. This V [PP] GP] VP structure corresponds to the syntactic configuration (X₁, XP₂, XP₃) with which, according to Truckenbrodt (1999), the Wrap-XP constraint conflicts, since the Align XP, R constraint does not require internal prosodic boundaries of a lexical projection. A mismatch between their domains is accounted for by allowing ALIGN-XP, R, and WRAP-XP to jointly derive a prosodic recursive structure, phrasing it from [V [PP GP] VP as ((V)P NP) GP). Another constraint that affects here is also Stress-XP which forces V to separate intonationally from the complement.

Figure 2

The Intonation of the Sentence S₁, Which is Initially Raised Due to Stress XP, Which Affects the Separation of V from VP



Consider the example taken from the *broadcast Pressing* (May 30, 2022):

S₂: //Ato pamje i shohin [t rit] FocP //
 Eng. S₂: //Those views see [young people] FocP //

Table 3

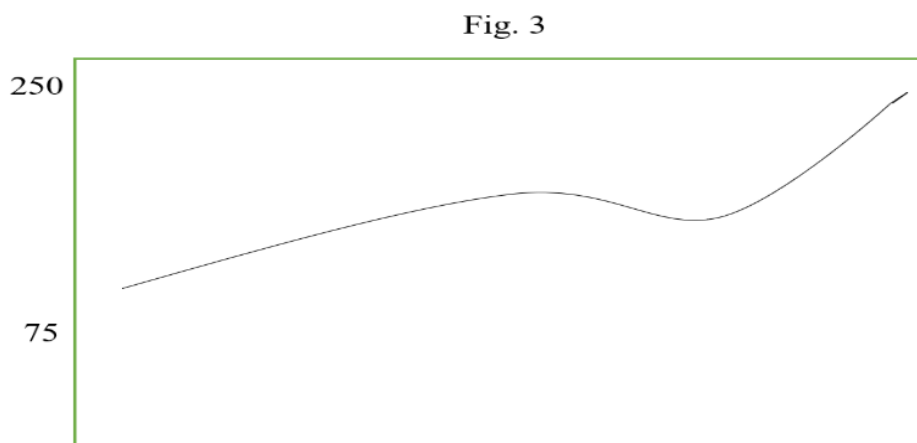
Realization of the Focus in Its Canonical Position (in-situ)

1. focus in-situ		Aling XP, R	WRAP XP	Align-Foc, R
(x) I	✓	✓	✓
(x) P			
[DP	V [vp t	[GPf]]		

In the given example, we see the focus on the in-situ position, which is its canonical position. When the focus is realized in its canonical position (in-situ), all the required constraints are satisfied. The Aling-XP XP constraint requires a syntagm ϕ such that the right edge of XP coincides with the right edge of the syntagm ϕ . Also, the Wrap-XP constraint is satisfied because each syntactic constituent is covered by a prosodic phrase, as well as Align Foc R, which requires the focus constituent [new] FOC to be aligned to the far right of the sentence, where the canonical position of emphasis. This phenomenon also fulfills what Samek-Lodovici (2005) says, according to which, since the stress is assigned to the right edge of a sentence, the focus is aligned in such a way that the stress falls on the focus.

Figure 3

The Intonation of Sentence S₂, Which Rises at the Very End Due to Stress-XP, Which Affects the Focus to Be Realized in Its Canonical Position



Consider example 3 taken from the *broadcast Pressing* (May 30, 2022):

S₃: //Rastsisht ma dërgoi videon [një mik] FocP //

Eng. S₃: //Accidentally [a friend] FocP sent me the video //

Table 4

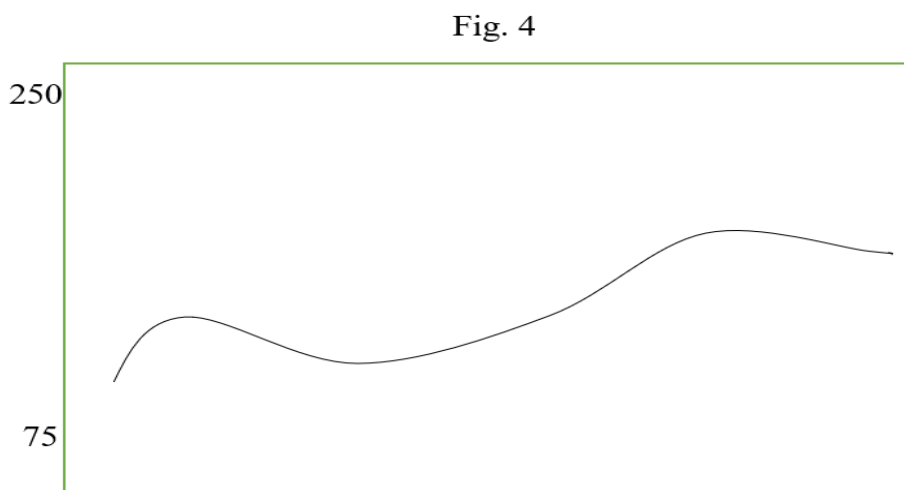
Subject Moves from Its In-Situ Position, to Occupy the Position Within the Focus Domain

1. right-dislocated focus	Align XP, R	WRAP XP	Align-Foc, R
(x) I	✓	✓	✓
(x) P			
[Adv CL V[vp t DP] [DPf]]			

In the third example, S [a friend] moves from its in-situ position to learn the position within the focus domain, since of all the XPs there, the last DP carries the new information. Due to the realization of this S as focus in postverbal position, this variational VOS configuration is obtained. We have this order only so that the constraint Align Foc, R is not violated. If we look at the constituent structure of this sentence we can assume that the constraint Wrap-XP is violated, since two DPs occur next to each other. But, when the connections between the components are well analyzed, we notice that DPs have different functions and different theta roles (θ -roles). Therefore, each of them is realized separately as a syntagm ϕ .

Figure 4

The Intonation of Sentence S₃, Which Experiences a Fall and Rise Due to the Movement of the Subject from Its Canonical Order



Results and Discussion

Special or Emphatic Focus

Special or emphatic focus rejects the canonical position of normal focus and can appear in unpredictable positions, considering that it is idiosyncratic and intentional, i.e., it is realized depending on the specific goals of the speaker that may not be predictable from the context. Therefore, in the domain of focus, any syntactic or morphological component can be realized, depending on the situation in which the speaker finds himself. Special focus stands for emphatic emphasis. This emphasis is characterized by raising the fundamental tone of the vowel (Rugova 2019).

Analysis

Consider the following example taken from the commentary of the *match Albania vs Serbia* (2014):

//Kjo është goditja// që i jepet me parakrah dhe për më tepër [përpara] FocP syve t Atkinson//

//This is the blow delivered with the forearm and moreover [before] FocP the eyes of Atkinson//

Table 5
Focus Realized in Its Non-Canonical Position

1. emphatic focus	Aling XP, R	Align-Foc, R	WRAP-XP
(x) I	✓	*	✓
(_ x) P			
Pro cl V [vp t PP [PPf GP]]]			

As the aforementioned example shows, the focus component is a preposition (before) which is the head of the prepositional phrase. Although the preposition together with the NP counts as a syntactic unit, the speaker focuses only on the preposition, which in this context is not a lexical head, therefore the Wrap-XP constraint is violated, which requires that every lexical head be covered with an ϕ phrase. The Align-Foc R constraint is also violated, since another Stress-XP constraint forces the focus to be realized in the non-canonical position, that is, where the speaker places.

The following example is taken from the commentary of the *match Albania vs Serbia (2014)*:

//Ka goditur [jashtëëë] FocP //
Eng. //(Has) Struck [outside] FocP //

Table 6
Focus Realized with the Adverb Jashtë (Outside)

1. emphatic focus	Aling XP, R	WRAP-XP	Align-Foc, R
(x) I	✓	*	✓
(_ x) P			
Pro V[vp t [adv]			

In the table above, we see that the adverb is the one that carries the emphatic stress. So, because of this emphasis, it is not realized together with the VP in a syntagm ϕ . Although the adverb is expected to go with the VP, this is not allowed by the Stress-XP constraint, which forcefully separates the adverb from the VP because it will stress it. The Stress-XP constraint also violates the Wrap-XP constraint which does not allow wrapping the adverb and the VP within a prosodic phrase. Semantically, it can also be explained why this adverb carries the emphatic emphasis, thus indicating that the shot was missed, so there is no goal because *the ball* went out.

Consider the example taken from the commentary of the *match Albania vs Serbia* (2014):

//Kukeli e kthen [praapa] FocP tek Mavraj//
Eng. //Kukeli returns [back] FocP to Mavraj//

Table 7

The Focus Realized in Its Non-Canonical Position with the Adverb Separated from the VP Phrase

1. emphatic focus	Align XP, R	Align-Foc, R	WRAP-XP
(x) I	✓	*	✓
(_ x) P			
S V [vp t [adv] [PP]			

Similar to the last example, the adverb *here* is the one that carries the emphatic emphasis. So, because of this emphasis, it is not realized together with the VP in a syntagm ϕ . The Stress-XP constraint conflicts with Wrap-XP and does not allow inserting it into a prosodic phrase with the verb because the strength of Stress-XP requires the adverb to carry the new information. The condition that the focus be emphasized requires that the focused constituent and the main accent coincide with each other, forcing one or the other to abandon their canonical position.

Conclusion

The above analysis shows how focus domains, prosodic domains, sentence stress and syntax interact with each other. For example, we saw that, when the sentence order is canonical order, the focus appears in the in-situ position, which is its canonical position. In this case, the far right focus is realized because the main stress is assumed to be pushed further to the right by prosodic constraints and this in turn pulls the focus best to satisfy the STRESS-FOCUS focus constraint. Even in a variational word order configuration (VOS) the focus is realized in its canonical position, as the subject (S) [NP/DP] escapes from its in-situ position, to acquire the position within the focus domain. Whereas, when the focus is not realized in its canonical position, another constraint, Stress-XP, comes into play, which forces XP to be separated intotonally from its complement, and thus enter only the domain of focus.

Meanwhile, when dealing with an emphatic focus, the Stress-XP restriction often conflicts with the Wrap-XP and does not allow inserting ϕ XP

and its complement into a syntagm, because the strength of the Stress-XP means that only one to carry what conveys the emotion.

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Discursive use of modality in RT's coverage of Russia's war on Ukraine

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Abstract. The current article looks into various types of modality use through the prism of critical discourse analysis strategies in the coverage of Russia's war against Ukraine by the international news provider RT. It aims to uncover how discursive practices, in the name of the Russian state ideology, govern the choice of modality means and explain their dependence on and relevance to the news stories, actors and circumstances within the broader field of representation. The corpus for this article was compiled on RT's website from July 17th to 24th, 2024. It consists of 93 news stories of Ukraine related content comprising 41,418 words and containing different types of modality, occasionally with references to alternative sources, in order to assess and uncover the biased ideological practices on the RT channel. Epistemic modality with its divisional kinds along with the modality of negativity is uncovered; as well as deontic modality, which reflects the ideology of RT's propagandistic narratives centered around Western states positioned against Russia's friendly nations. Conflicting tendencies of factive and emotional reporting are discerned. Quantitative results have been arrived at resorting to both the percentage format and a Mann-Whitney U test, taking into account a similar corpus on the Venezuela crisis of 2019–2020. Modality implementation and distribution provides insight into the RT's propaganda techniques. The article redirects critical discourse analysis towards news consumption, raising awareness of the readership and enhancing news literacy.

Keywords: *modality, critical discourse analysis, discursive strategy, bias, RT, ideology, propaganda.*

Мацелюх Ігор. Дискурсивне використання модальності у висвітленні каналом RT війни Росії проти України.

Анотація. У цій статті розглядаються різні типи використання модальності крізь призму стратегій критичного дискурс-аналізу у висвітленні війни Росії проти України міжнародним новинним провайдером RT. Вона має на меті виявити, як дискурсивні практики в ім'я російської державної ідеології керують вибором засобів модальності та пояснити їхню залежність і релевантність до новинних сюжетів, акторів, обставин у ширшому полі репрезентації. Корпус для цієї статті було зібрано на сайті RT протягом

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тижня з 17 по 24 липня 2024 року, тобто майже через два з половиною роки після повномасштабного вторгнення Росії в Україну. Вона складається з 93 новинних матеріалів про Україну загальним обсягом 41 тис. 418 слів. У межах корпусу проаналізовано різні типи модальності, іноді з посиланнями на альтернативні джерела, щоб оцінити та виявити упереджені ідеологічні практики на каналі RT. Виявлено епістемічну модальність з її різновидами та модальністю негативу, а також деонтичну модальність, яка відображає ідеологію пропагандистських наративів RT, зосереджених на західних державах, що протиставляються дружнім до Росії країнам. Виявлено суперечливі тенденції фактологічного та емоційного висвітлення подій. Кількісні результати отримані з використанням як відсоткового формату, так і U-критерію Манна-Вітні, з урахуванням аналогічного корпусу даних про венесуельську кризу 2019–2020 років. Реалізація та поширення модальностей дає уявлення про пропагандистські технології RT. Стаття переорієнтовує критичний дискурс-аналіз на сприймання новин, привертаючи увагу до різних типів модальності та їхньої функціональності в критичному дискурс-аналізі новинних матеріалів, підвищуючи обізнаність читацької аудиторії та покращуючи новинну грамотність.

Ключові слова: модальність, критичний дискурс-аналіз, дискурсивна стратегія, упередженість, RT, ідеологія, пропаганда.

Introduction

Research Background

Critical discourse analysis of perceiving mass communication as a way of spreading mediated reality was established in the 1990s in the scholarly works of van Dijk (1988), Fairclough (1989), (1995), (2001), Wodak and Meyer (2001). Media discourses and specifically news reports constitute a separate sociocultural practice within a broader field of political discourses and studies ranging from the periodical *Discourse and Society*, founded in 1990, to numerous publications, from Chilton (2004) to Fowler, et al (2019), and onwards to dissertations, such as Badran (2002) and Ngula (2015).

One of the ubiquitous and less researched CDA tools in media is modality as a means to present an utterance in a certain attitude of truth commitment, volition, advice, reservation or irony. Modality is one of the more subtle means if we expand it beyond the basic auxiliary modal verbs (*must, will, would, can, could, may, might*, and others), notional verbs and adverbs with inherent modality (*desire, condemn, prefer, allegedly, supposedly*, and others), nominative modal structures (*it is necessary, it is with condemnation that ...*, and others), (Lillian, 2008). Given all the political tensions of the 21st c., new ideological discursive practices aspects come to the fore, as was partially suggested by one of the founders of CDA: “Both modality and evaluation will be seen in terms of what authors *commit* themselves to, with respect to what is true and what is

necessary (modality), and with respect to what is desirable or undesirable, good or bad (evaluation)” (Fairclough, 2003, p. 164).

Regardless of the propagandistic rating for RT, we mean to produce independent results in terms of biased modality on RT International English-language webcast, to define the research method and our guiding premises and draw conclusions as to the use of different modalities in the service of ideology.

The concept of modality stems from Systemic Functional Grammar by Halliday (2004, p. 613ff) and pertains to the interpersonal linguistic metafunction where the discourse concerns the position and commitment of the speaker or writer towards their utterances. Alongside other discursive means, modality, in its versatile manifestations, helps to identify the attitude of the author or editorial board towards the reality in focus and indicate how power and ideology are implemented within news discourse. As Hodge and Kress (1988, p. 123) wrote in their seminal work *Social Semiotics*:

Modality is, consequently, in play at all times, in every semiotic act. The affirmation of ‘security’ over the system of classification is an instance of the operation of modality, as much as the assertion of its ‘insecurity.’ Consequently all utterances ... are modalized.

Since the mid-20th century scholars have focused primarily on the two categories of modality: epistemic and deontic. The former refers to the knowledge of the world and embraces both the factual state of the social or natural environment and the speaker or writer’s level of commitment to it (Sebeok, 1986, p. 553). Another definition of epistemic modality originates in Matheson (2005, p. 180): “Modality: describes aspects of language that tell listeners (or readers) how much the speaker vouches for or attaches him or herself to what is being said.”

Palmer (2001, p. 22) developed two categories of modality – 1) propositional modality, consisting of epistemic (speculative, deductive, assumptive) and evidential (reported, sensory) modality; 2) event modality, consisting of deontic (permissive, obligatory, commissive) and dynamic (abilitive, volitive) modality. Epistemic modality reflects the author’s attitude towards the utterance in terms of truth-value or factuality and judgments, while evidential modality provides evidence to prove the proposition. Such distinction directly corresponds to our findings, since RT coverage tries to counterbalance weakly supported propagandistic content with factual cross-references elsewhere in the news stories.

Van Linden (2012, p. 7), on the other hand, argues that modality cases, especially the dynamic and deontic categories, are related to the adjectival and adverbial complements. Her findings suggest that the latter are equally loaded with modal meaning in the lexico-semantic plane, which is traceable in our

corpus, e.g. *repeatedly denied, miraculously survived, legally binding, massive loan, damaged infrastructure, windfall profits, outright “theft,” sovereign funds, warring parties*, and similar collocations. Attributes lack the accompanying meaning of obligation or permission in a number of modal verbs; however, they are active in the evaluative aspect, making them one of the key constituents of the assumptive sub-category of epistemic modality.

Another aspect of modality, briefly touched in Palmer (2001), concerns the objective and subjective modality as epistemic subtypes of modality elaborated on in Martirosyan (2022), the main premise of which is the acquisition of various modalities in different contextual circumstances. The researcher points out that subjective modality is more prominent and in our corpus we come across multiple instances where subjective attitudes are presented as obvious, and thus objective, categories, e.g. *The country [Germany] also joined other members of the US-led bloc*, where the attributive *US-led* has little informative relevance to Germany’s military spending; nevertheless, it implies the previous history of US interventions in global conflicts interpreted by RT as politically convenient precedents. There are 29 detected cases of ironic or condescending modality emanating from the ideological stance of RT as a state-commissioned webcaster, e.g. *much-touted, ruse, Ukrainian grand offensive, pulling the rug from under, the so-called*. RT heavily relies on lexeme *liberate*, when describing the newly occupied settlements, *On Sunday, the Russian Defense Ministry announced the liberation of Urozhaynoye, a large village located in the southwest of Russia’s Donetsk People’s Republic (DPR)*, taking the latter as its own territory.

Another ironic instance is the imposition of *martial law ... due to the conflict with Russia*, which betrays the notion of *conflict* that stands for the full scale military invasion. And yet another proof of Russia’s double-talk, *Moscow still declares that peace is only possible through establishing political dialogue*.

Methodology

The mainstay of the current research is CDA, introduced by Fairclough (1995) and his approach towards modality in Fairclough (2003, p. 164ff), who affirmed that authors commit themselves differently to “knowledge exchanges.” Likewise, the textual choices of RT’s editorial board produce different discursive representations and different levels of commitment towards Russia’s political and military adversaries as compared to Russia’s more friendly states. Such discrepancies are detectable throughout the RT news feed at the level of presuppositions, implicatures and nominalizations, transitivity and agency,

irony, intertextuality and modality. It is the concept of modality that constitutes the focus of the current article, although the former ones are powerful tools in the service of power relations and ideology.

Nevertheless, we have to admit that not all of the modality cases serve ideological purposes; it is the larger context of the discourse and background assumptions along with the triggered presuppositions that make the given example of modality ideologically biased. Since numerous other factors come into play when defining modality bias, it makes both the qualitative and quantitative approaches quite challenging; hence we have to agree on several research premises, and the **first premise** defines the unit of biased content. Considering the rather high word count per sentence – 30.2, there are numerous cases of multiple modalities of smaller syntagms. Hence, collocations, phrases or clauses that contain modality in the service of ideology, regardless of their type or intensity, are counted as units of biased content, e.g. *Such incidents serve as evidence of Western powers being complicit in the “criminal activity of the Kiev regime.”* We are setting our findings against the overall sentence count - 1,713, as each of them can display at least one modality case, with three in the previously cited one.

The **second** premise posits an issue of the key elements' substitution or elimination within the text in order to see their function more clearly, by which we modify the original context and gain an insight into the author's intent. It is to be resorted to when the context offers no clear solution as to the biased content, e.g. *The US has acknowledged that there are indeed a number of biolabs on Ukrainian soil, but insists that they are entirely legal.* The enhancers *indeed, entirely,* and to a degree *insists* add to the persuasiveness of the excerpt, and distort the neutrality of the utterance.

The **third** premise concerns the degree of visibility, frequency and intensity of a modality case. The nature of modality and the surrounding discourse usually shed light on the attitudinal aspect; and we assume that the intensity level and repeatedness indicate a biased presentation on the grounds of its penetrative nature, and, technically, the archival retrieval on RT reaches years in the past. In the sentence, *Moscow has accused Ukraine of routinely using the systems to launch indiscriminate attacks on Russian territory, including on civilian targets,* apart from strong accusatory deontic modality of the predicate, *has accused,* the utterance contains two lexical and one structural arbitrary elements, *routinely, indiscriminate,* and *including on civilian targets.* By eliminating these items from the discourse, we receive a more neutral report. In fact, the original wording precisely

mirrors Russia's deadly strikes on Ukraine, which is excluded from the RT news feed whatsoever.

The **fourth** premise concerns the decisions based on contextual environment; micro and macro-contexts define the degree of ideological bias, taking into account political players and their typical roles that are commensurable with the Kremlin's list of the unfriendly states. Regardless of the qualitative degree, sentence *Ukrainian forces are deploying chemical weapons against Russian troops on the battlefield, Russian Deputy Foreign Minister Sergey Ryabkov has said* is still viewed as a unit of biased modality, as no evidence is provided, rather than the authorizational reference to an official.

The **fifth** premise concerns the propagandistic tendentiousness of all the detected modality cases, which may belong to both anti-West and pro-Russia contents and should reflect the ideological intentions of RT directly or other reported actors, clearly corresponding to the current geopolitical affairs. We assume that our findings correspond to an average level of engagement of an educated college graduate, as indicated in the readability index in Table 1. In *Warsaw sent regular army soldiers to reinforce the Border Guard in 2021, when it first accused Russia and Belarus of waging a "hybrid war" by allegedly channeling migrants to Poland*, e.g. the main clause of factual epistemic modality is followed by implicated numerous accusations of deontic obligatory modality against Russia, which poses as innocent with quotation marks distancing the notion in question and with speculative epistemic *allegedly* that casts doubts on the this otherwise true story.

In view of the defined methods and premises, ideology distribution and the functional role of modality, let us offer a sample analysis of a typical RT news story titled, *Andrzej Duda claims that the entire US-led military bloc considers Moscow to be its greatest threat*. Different modalities can be detected here, epistemic authoritative and epistemic assumptive of different intensity. In the former, the tentative *claims* distances the speaker from the uttered "truth" simultaneously enhancing the verity of the claim by the intensifiers, *the entire, its greatest threat*; the *bloc is military* and it stands against the un-allianced and discursively "un-military" Moscow; and the EU members' opinions are not presumed to matter, since the bloc is *US-led*. The verb *considers* places Moscow into the realm of a hypothetical threat rather than a real one, since it is only the bloc's considerations.

The subtitle, *Polish President Andrzej Duda has warned of an imminent war between Russia and NATO if Kiev fails to secure victory in its conflict with Moscow*, further expands on the idea in more realistic terms: verbal lexeme *warned* is by itself a clear indicator of sufficient expertise and authority towards the present geopolitical tensions. Epistemic assumptive *warned, imminent*

hinge on the conditional speculative modality *if Kiev*. It is also prominent that the idea of failure in the war is placed in the subordinate clause, which retreats in structural prominence but allows it to provide information in a less noticeable manner (Jeffries, 2010, p. 48).

The notion of *victory* is severed from the latter by the modality of negativity *fails to secure*, stressing its unrealistic nature, and Russia's war is again shrouded in lexeme *conflict*, by way of speculative epistemic modality. Although we could define different applications of modality in the two titular sentences, their ideological message may range from sharing Russia's real existential threat to wielding its strong power against the bloc.

Two years into the full-scale war, Russia again uses strong assertive modality to reassure the world of its "peaceful" intentions: ... *Duda claimed that if Russia were allowed to defeat Ukraine, it would then attack NATO states – a prospect that Russia has repeatedly denied*. Modality choice towards Russia's reassurance is much stronger than that towards the rest of the utterance, *if ...were allowed to defeat, would then attack*, and this disparity between pro-Russian and pro-Western content is key in our attempt to uncover the bias via modality in RT's coverage of Russia's war on Ukraine.

Research Material

Our corpus is compiled from the Ukraine related news feed, which showcases the topical and more complex social and political issues, and the CDA theoretical framework often calls for amendments in order to approach our corpus.

The choice of RT (formerly *Russia Today*) was motivated by the swift rise of this news provider to prominence and its international reputation as a propagandistic outlet of the Russian government (Lucas & Pomerantsev, 2016; Aleem, 2017). Despite being banned from aerial service in a number of European countries and Canada (Erlanger, 2017), RT's popularity rose exponentially in the years 2005-2015 (Orttung et al., 2016), and with its never wavering state budget continues to grow in popularity (Michałowska-Kubś & Kubś, 2023; Greenfield, 2022). Against this background it is natural to assume that RT allegedly employs additional strategies rather than factual news reporting (Kling et al., 2022). However, we have to point out the scarcity of CDA research on modality in the output of a single webcaster and lack of unified principles on how to approach a CDA research of a propagandistic channel, such as RT.

The intensity of RT's editorial production increased from March 2022, when it produced 231 news reports within two months, which amounts to about 4 news stories per day; while our corpus, almost 2.5 years into Russia's full-scale war features 13 news stories per day. Such intensity heightens interest in the ideological slant and discursive values of RT's news articles. The intensity of RT's coverage of Russia's war on Ukraine could further be compared to 151 news items on the Venezuela crisis of January to May, 2019, which averages less than one news item daily. Such increase of Ukraine-related material on the international section of RT's homepage deviates from the initial goal of the channel to promote Russia internationally and casts doubts on the channel's impartiality (Lucas & Pomerantsev, 2016).

Table 1 provides quantitative features of the corpus in comparison to that on the Venezuelan crisis.

Table 1

Quantitative Features of the Selected Corpus in Comparison to That on the Venezuela Crisis

	Venezuela Crisis	Russia's War on Ukraine
Time period	Jan-July, 2019 (29 weeks)	July 17 – July 22, 2024 (1 week)
News stories	151	93
Paragraphs	1,314	919
Sentences	1,755	1,713
Words	41,493	41,418
Sentence paragraphs	579	714
Subordinate clauses	386	331
Average words per sentence	28.4	30.2
Readability Index	13.201 (college level)	13.170 (college level)

These statistics prove that the intensity of RT's coverage impacts the size of a news story for Ukraine, reaching nine to ten paragraphs, and the count of sentence-paragraphs is significantly higher, making the news narrative even more multi-layered with a plausible explanation that it is easier to place propagandistic information less blatantly within a larger structure (Jeffries, 2010; Buckledee, 2018). To this end might also serve the sentence length, which is 1.8 words higher for Ukraine. Subordinate clauses are another repository for

biased content that eludes direct questioning and their lower count for Ukraine is counterbalanced by 135 extra sentence paragraphs.

Results

Modality Types in Corpus Analysis

By analyzing our corpus in terms of various types of modality, we have to keep in mind that for the most part the discourse operates at the level of high-profile representations of various state institutions and between the countries as political entities. These entities speak and act either through the direct voices quoted verbatim or via their reported versions. Thus we acknowledge another implied agent, psychologically less obvious, but even more propagandistically decisive, viz. the news provider itself. Being state funded, RT is liable to fulfill its benefactor's commissions, which finds its realization in the choice of discursive means and the modality of validity, predictability and desirability in particular.

In fact, the diversity of modality types in our corpus and elsewhere on the RT feed offers a substantial array of modal representations. However, for the research purposes of brevity and manageability we have singled out some of the most prominent modality types, such as propositional *epistemic modality*, expressing judgment about the factual status of the reportage; *authoritative modality*, with an expert in focus; *speculative modality*, rendering varying interpretations or various degrees of certainty in the events or decisions; *deductive and assumptive modality*, drawing inferences from the observable data and general knowledge; *reported modality*, when evidence is received from the third parties; *moral modality*, when certain moral values are offered as a reasoning factor; *intentional modality*, when the will of the speaker is brought forward; *the modality of negativity*, when linguistic units, negative in either form or in meaning, create the discourse of criticism and non-acceptance. In the following sections we will be tracing these modality types throughout the corpus against the larger political discourse of RT.

Modality of a Peacekeeping Mission

Indeed, every single case of modality is unique by itself, and the above types and premises could be prolonged indefinitely. However, what is worth noting is the so-called presuppositional modality, where projections as to the evaluative or consequential aspects of political processes are put forward in an

indirect manner, e. g. in excerpt (o1) where the direct speech of European Council President Mr. Charles Michel represents the adverse reaction of the EU members towards Hungary's overstepping limits of its EU presidency. It can be deducted via the use of the key lexemes, *the Union, rotating Presidency, on behalf of the Union*.

(o1) "The rotating Presidency of the Council has no role in representing the Union on the international stage and received no European Council mandate to engage on behalf of the Union," Reuters quoted Michel as writing.

The message came in response to a letter sent by Orban to EU leaders last week, in which he outlined the results of his negotiations with the Ukrainian, Russian, and Chinese leaderships, put forward proposals to end the conflict, and gave his take on Washington's foreign policy following a visit to the US.

It is obvious that a reader of the news would be resorting to their background knowledge of political procedures, the violation of which warrants penal consequences. Strong negational modality, *no role, no ... mandate*, cautions the subsequent presidencies with moral modality, warning against this unwelcome precedent, with a subtle implicature that Russia does not experience problems with authority subordination.

Let us note that the quote per se does not contain an obvious agent, it is impersonal and is carried out in a formal declarative mode of a joint postulate, and further deprecates the individual move of Mr. Orban. Here we mean to outline another modality of editorial intentions, which is veiled by the presupposition that in two and a half years of Russia's full-scale invasion into Ukraine, it is the first move of an individual country to undertake a peacekeeping mission (Tuzhanskyi, 2024).

We keep in mind the issue of the news response with the target audiences, which might be following different interpretational paths, e. g. extract (o1) comes from the article titled, *EU rejects Orban's Ukraine peace proposals – Reuters*, further subtitled *The Hungarian prime minister recently visited Kiev, Moscow, and Beijing for talks*. Immediately, one can spot the inconsistencies in the message of the first paragraph of (o1) and the title if the target readers resort to alternative news sources. RT forefronts the attitudinal modality, *rejects*, putting the EU in the subject position, i.e. the agency of the proposition. Such predication places the EU in the unfavorable position of the warring side. With a credible news source agency quoted, one could infer from the implied intentional modality that the EU unity is crumbling as it discards peace efforts. The subtitle further propagates the idea of peace talks: and neither *peace proposals* nor *talks* are elaborated upon until the end of the news report. However, that feature could be lost on some readers who might be

scrolling on the newsfeed to another story; and the initial proposition, the negativity of which is almost an asset for the newsworthiness, might stay prominent in readers' minds for a more prolonged time than the story itself. Such cases amount to 364 out of possible 1,713 sentences, and pertain mainly to disagreements among political powers and accusations against the West, which, apart from overt structural negations, are registered in lexical units, such as, *refuse, complicate, escalate, jeopardize; terrorism, failure, mercenary, difficulties, crisislack; hostile, notorious, defunct, aggressive and crippling*.

The second paragraph of (o1) stands in a certain opposition to the first one, in terms of seemingly more neutral modality. In fact, the rheme part of this sentence-paragraph is written out in the three parallel components of the subordinate construal, *he outlined..., put forward ..., and gave his take*, all of which display factual epistemic modality of regular diplomatic procedures considered as the rightful achievements of Hungarian diplomacy. There are 1,328 counted cases of epistemic modality of anti-Western content out of 1,713 sentences throughout the corpus; the more neutral ones pertain mainly to external issues that exclude Russian interests.

Another peculiarity of the RT discourse is a gradual shift towards more specific subject matter and lexis in final sections of the rheme. Even if it is a ubiquitous principle of sentence structures, on RT the initial thematic material pertains towards more general propositions and is more neutral both in wording and modalities. So does this sentence-paragraph, where, firstly, this harsh response might sound unfair towards Orbán's diplomatic efforts. Secondly, it was triggered by a letter, i.e. a norm of high diplomacy correspondence; thirdly, his efforts to end the *conflict*, albeit, not the "war," were underestimated by the EU leadership, hence the presupposition that it is out of step with peace-keeping strategies.

Another kind of modality hinges on lexical choices in the following example (o2). Lexeme *worth* is not an indispensable discourse constituent here; however, it reminds the taxpayers of the finances spend on *military aid* for a foreign nation and might trigger the adverse societal attitude. The last sentence exhibits strong and positive deontic modality rarely attributed to Western leaders.

(o2) The EU and the US have provided Kiev with billions worth of military aid since the outbreak of hostilities with Russia in 2022. Hungary is one of the few EU nations to criticize Brussels' approach to the conflict. Budapest has refused to send weapons to Kiev and has repeatedly blocked sanctions against Russia as well as aid to Ukraine. Orbán has insisted that the Ukraine conflict needs to be resolved through negotiations.

Discursively, *billions* are spent just because of *the outbreak of hostilities* with a neighbouring country, which stands for Russia's war on Ukraine, and might incite the regret of frittering away the state budget. *One of the few EU nations* means that there are diverging views within the EU, and with the factual modality of *is*, the subtle intention of splitting the bloc is activated. A firm position of *refused to send weapons* and *repeatedly blocked sanctions* sends the strong signal of a high moral modality. Finally, *insisted* in the last sentence positions Orban next to the top diplomats who still believe in peaceful resolutions to wars. The verb *insist* is one of those lexical units, among them *want, refuse, reject, deny, promise, doubt*, that emanate their various intentional modalities, which are not easily broken, i.e. one cannot stop wanting or refusing; as a rule, these units tend to reflect factual and prolonged mental or emotional states. This type of modality has to do with a firm individual position, especially prominent in political leaders; it is meant to be unwavering to remain in high esteem in the public eye; the intentional modality type was detected 107 times in our corpus, issuing mainly from the Russian side.

Modality in Miscellaneous Excerpts

The third week of July 2024, during which our corpus was gleaned, encompasses political events such as the above analysed peacemaking mission of Mr. Orban, the Kremlin's reaction towards its frozen assets, another "closed door" trial against an editor of US state-run Radio Free Europe Alsu Kurmasheva, Trump's attitude towards sanctions, Germany's diminished help for Ukraine, and the hypothetical termination of Russia's war on Ukraine.

In political discourses, it is customary to allocate allegiances to one of the warring sides. By analyzing the type and intensity of detected modality we can conclude that RT's coverage of Ukrainian issues is far from impartial, as seen from the quantitative data in Table 2 in Conclusion. For that purpose, the text samples will be selected from thematically different areas in order to escape a researcher's bias and produce more objective results.

The key type of modality in news discourses is epistemic, related to how truth is presented. Looking back to excerpts (o1), (o2), we face the penalizing discourse of the EU reaction to Orban's mission against the supportive factual tone of RT's version in (o1) and next-to-praise multiple listing of the Hungarian political accomplishments in (o2). Finally, we arrive at the story titled, *EU may not be right fit for Hungary – member state*. As is often the case on RT, titles are delivered in strong objective modality hiding the voice of RT. Apart from the presupposition that Hungary may forge another alliance, it might be implied in

the larger context of Russian-Hungarian discourse that the title is both an invitation to leave the EU and an attempt at destabilizing the bloc.

In sample (o3) again, the Russia-friendly content is sustained in factual neutral modality *he met*, while the EU reaction is kept in the military domain, *triggering the ire*, a poetical and latinized one, from the opening words of a Latin hymn from the mass for the dead “Dies ire.” The level and intensity of modality is different, and more image-provoking with the intertextuality of the church service. In terms of epistemic modality, i.e. how the journalists of the RT channel commit themselves to the statements, it is both factual acceptance and disparaging sermon-like reproach, which might be subtly placing the authorship of RT in the righteous camp (Gaufman, 2017).

(o3) As part of the mission, he met with Russian President Vladimir Putin in Moscow, triggering the ire of EU leaders. Orban stressed he does not need a mandate from Brussels to promote peace and that his discussions cannot be considered official talks. In a rebuke of Orban's solo diplomatic efforts on Ukraine, the EU's next informal meeting of foreign and defense ministers will take place in Brussels instead of Budapest, Borrell said on Monday. He called the change of venue 'a signal' to Hungary.

The second paragraph reiterates the modality of the previous one, and likewise projects it via lexical items *rebuke, solo*; the latter, coming from Italian musical terminology, further undermines its poetical significance via intertextuality. Although still a voice of RT, it projects the viewpoint of the EU foreign policy chief, who further proceeds with penal measures. The hint of shifting to another *venue* is a type of speculative modality, which testifies to the power of the news provider to inflict political hints. Such instances amount to 285 out of 1,713 sentences of the corpus, which is quite numerous, given that moderately-puzzled indirect talk decipherable by the readers is likely to be stored in long-term memory as the understanding of these comes with more creative mental efforts (McGaugh, 2000).

By shifting focus on the authorization cases in our corpus, we note a discrepancy between the representation of the Russian president along with other Kremlin dignitaries and leadership and those of other countries; thus the name of the former is invariably spelled out in 39 cases, apart from another 14 cases when that name immediately follows its full title in the preceding sentence. Others are deprived of this consistency, with the exception of Hungarian leader in 19 cases, e. g. *Trump, Biden, Michel, Duda, Zelensky*. It is noteworthy that RT's rhetoric towards Ukrainian Presidency changed after the mid-2024 and it is very often referred to as *Ukraine's Vladimir Zelensky*. There are 224 cases of anti-West authoritative modality out of 1,713 sentences.

The issue of Russia's frozen assets abroad has been raised numerous times since the full-scale invasion, and 20 times in this corpus alone within a week. The modality of RT's stance, as expected, is quite predictable, as in an excerpt (04) from the story titled, *Japan to send billions to Ukraine using frozen Russian assets – media*. The unspecified quantity “billions” conjures up an impressive amount. Further on, Japan looks indebted to Russia for this gesture of support for Ukraine with instrumental modality *using*.

(04) Tokyo will shoulder 520 billion yen (\$3.3 billion) in loans to Kiev funded by proceeds from Russian assets blocked as part of Western sanctions..

In May, Brussels approved a plan to use windfall profits generated by the frozen assets to support Ukraine's recovery and military defense.

In the first paragraph the modality of reassurance governs the predicate, again without any explanation of the reasons for the Western sanctions, or the Russian blocked assets. Another type of modality, that of emotional assessment, *windfall*, reinforced by the plural, *profits* reigns in the second paragraph.

The title of another news item, *Ukraine to get first \$1.5 billion of seized Russian cash – Euroclear*, posits the idea of a theft and indirectly a thief, with a universal message of unaccepted wrongs, yet again, no word on where the Russia's woes stem from (05). The same lexical and auxiliary modality of affirmation, *confirmed*, *will*, reveals the European position on this case, with three reminders of the stolen funds, *interest generated by the frozen Russian funds, belonging to Russia's central bank, frozen Russian assets*. Thus, towards the adversaries and their actions RT applies strong accusatory modality, and repeatedly inserts the fragments of this story, whose multiplicity constitutes the reiterative modality of insistence verging on naturalization, when the information is repeated to a degree that it becomes a norm or an institution (Jeffries, 2010, p. 99).

(05) Brussels-based depository and clearing house Euroclear has confirmed that it will confiscate interest generated by the frozen Russian funds that it holds and will transfer the money to Ukraine.

It follows months of deliberations among EU and G7 nations about how to use billions of dollars belonging to Russia's central bank that were immobilized as part of Ukraine-related sanctions.

However, the purpose for the money transfer is mostly the same, as in this title, *EU sets date of transfer of Russian money to Ukraine for arms purchases*, dominated by factual, and hence unquestionable modality, further developed in the subtitle, *Kiev will receive €1.4 billion, the interest accrued on frozen funds, early next month, the bloc's top diplomat has said*, with confirmative modality.

The purpose, *for arms purchases*, is stated unequivocally, as if there are no other needs for Ukraine than buying more arms. Excerpt (o6) is quoted here for the purpose of highlighting the numerous examples of naturalization, which is related to the modality of persistence.

(o6) The EU has revealed when it will begin sending Russian money to Ukraine. The bloc's top diplomat Josep Borrell has claimed that the first tranche of interest accruing on some €300 billion in frozen Russian assets, totaling some €1.4 billion, will be sent to Kiev in the first week of August to fund arms purchases.

Excerpt (o7) comes from a news item under the title, *Kremlin responds to proposed EU militarization plan*, where the response is factual, and it is the EU that initiates militarization for no reason or motives provided in this rheme-positioned nominalization. The subtitle, *The EU Commission president's push to create a "European Defense Union" means the bloc is heading towards confrontation, Dmitry Peskov says*, is rendered in a mitigated modality of assumption, *Peskov says*, and again ascribes the habitual, *once again*, warring intentions to the bloc, *confrontation*.

(o7) European Commission President Ursula von der Leyen's idea to transform the EU into a defense union is further proof that the bloc is seeking to escalate the security situation on the continent, Kremlin spokesman Dmitry Peskov has said. Commenting on von der Leyen's pledge, Peskov remarked that the official was signaling the EU's "change of priorities" to focus more on the military domain. This "once again confirms that European states in general are pushing towards militarization and reliance on confrontational methods in their foreign policy," the spokesman said.

Excerpt (o7) puts the blame for the insecurity on the EU, with Russia and its invasion of Ukraine as though nonexistent. Deductive modality, *is further proof*, and the presupposition of previous proofs sideline Russia from the conflict zone; indeed, when one keeps accusing one's adversary, it is tempting to believe in the righteousness of the accuser (Gaufman, 2017, p. 16). There are 84 cases of deductive and assumptive modality traced throughout the corpus, all of them within the anti-West content.

Nominalizations, being deprived of overt agency, are susceptible to assume quasi-agency from the immediate and larger thematic context provided by RT. They also introduce the modality of involvement into the activities without an explicit predication and generally belong to the register of traditional objective impersonal journalism and resent being questioned.

A sympathetic stance towards India is seen in excerpt (o8), under the title, *India under 'brazen pressure' over energy ties with Russia – Lavrov*, where

Russia's political partner is under pressure, activating a presupposition of unfair Western bias based on the mere affiliation with Russia.

(08) India has maintained robust ties with Moscow against the backdrop of the Ukraine conflict despite scrutiny from the West. New Delhi has ramped up its purchase of discounted crude oil as well as other commodities from Russia, insisting that it is acting based on "pragmatic" interests...

This passage exemplifies how lexico-semantic modality can be instrumental in propagating RT's ideological position, e. g. *scrutiny*, *ramped up*, *robust*, *insisting*, since these lexemes stand between the acting parties and describe what kind of relationships is involved. In fact, the combined meanings create the atmosphere of defiance and adhering to the Russian values.

RT's coverage also tends to identify the peacekeeping camp of the EU, whilst considering most of it warmongers in (04), (05), (06), (07); the following (09) concerns Serbia and Germany and portrays them in the pro-peace and pro-war camps, respectively. Titled, *Serbian leader tells German chancellor to seek urgent Ukraine peace deal*, it exerts strong deontic modality, *tells ... to seek*, which is further elaborated in the subtitle, *Olaf Scholz should seek a truce now and settle terms later, Aleksandar Vucic has said*, with the explicit deontic *should* that positions the addresser in a more powerful light of the one who dispatches orders.

(09) The Serbian president said he would try to argue for a "more rational approach" and the importance of peace, but that such a position would probably not be met with understanding.

Vucic has resisted EU pressure to join the bloc's sanctions against Russia and declared Serbia's neutrality in the conflict.

The implicature that at present the EU's approach is irrational is accompanied by a more mitigated modality of *would try*, *would probably ... be*; the latter of which puts forward a presupposition of lack of mutual understanding. The discursive marker *but* splits the utterance and introduces a kind of epistemic modality of distrust towards the EU.

RT singles out Serbia and Hungary for its own goals, probably those of disintegrating the bloc, by applying positively furbished connotations into the discourse, *resisted EU pressure*, which by itself places the two countries outside the bloc. Their staunch attitude, as well as *Serbia's neutrality*, is undoubtedly considered praiseworthy on RT.

Excerpt (10) introduces the historical discourse of Russia's involvement in the Second World War, liberating Europe from fascism. Russia also maintains that this time it is exterminating fascism in Ukraine under various pretexts,

including false ones as in this story titled, *Auschwitz Museum responds to RT's Ukrainian Nazi exposé*.

(10) In a series of recent posts on Instagram, Nikita Miroschenko shared photos and reels of him and his girlfriend paying a visit to the death camp in Poland several weeks ago. One of the reels showed the gates of Auschwitz with the infamous Nazi slogan 'Arbeit macht frei' with German military music playing in the background, while another showed him wearing a shirt emblazoned with the text "Where we are, there is no place for anyone else" – a phrase attributed to Nazi leader Adolf Hitler. ...

No matter how scrupulously we searched the archives for the quote at the end of the first paragraph of (10), the results never took us to Hitler. In terms of content, it would be most likely attributed to French existentialist philosopher and playwright Jean-Paul Sartre from his play *No Exit* (Fr.: *Huis Clos*), where he explores such themes as existentialism and freedom, and the quote reflects the intense, exclusive relationships among the characters in the confined settings. Nor do we find traces that it belongs to Hitler in *The Third Reich Trilogy* (2003–2008) by British historian of 19th – and 20th-century Europe Sir Richard John Evans.

We assume that in RT's representation it is interpreted too literally and conforms to Russia's narrative to inflict the "necessary" context of supremacist ideology on Ukrainians. The tentative modality *attributed* moderates the commitment of RT towards the authorship of the quote, but the text dictates its own values and mentions what it mentions, suppressing the fact of the doubtful attribution. However, on the accompanying video the text runs as *Azov veteran poses with Hitler quote at Auschwitz memorial*, as well as in the subtitle, ... *emblazoned with an Adolf Hitler quote*, where the authorship is undisputed and enclosed within a nominal group, which presents its content as a given (Jeffries, 2010, p. 25). By shifting stronger modality to a more user-friendly medium of video story, the ideological harm has definitely been done.

Factual modality of news reportage prevails in (10), *shared, showed, came to public attention*; the non-finite verbal participles *paying, playing, wearing*, in terms of modality, are functioning here in step with the predicative verbs, adding to their lexicalized modality as well. The clash of logical presuppositional expectations between the peaceful and ubiquitous *paying a visit* and the macabre *death camp* bring the lighthearted modality of attitudes to the place of tragedy. The discourse contains the antipathetic lexical modality of *Auschwitz, Nazi, Hitler, German military music*, so that what this music expresses is orbiting around the implications of the former, enhanced by emotional intensifier *infamous*. Lexeme *emblazoned* positions the editorial staff of RT with the hints of historical intertextual modality of value imposition, since

originally it belonged to heraldry. With such intertextuality RT is directly accusing the neighbouring nation of the revival of fascism.

Emotional modality predominantly hinges on lexico-semantic levels of texts and evokes a deeper personal response triggered mainly by encountering lexemes with strong connotations, such as *slaughter, genocide, firebrand; condemn, slam; merely, intensely, overwhelmingly, delusional, long-hyped; hawkish stance, blatant violation, bungled performance, international condemnation, rampant corruption, a slew of reforms, to foment protests, to dupe countries around the world, to fuel the conflict*. There are 87 counted examples of emotional modality throughout our corpus.

Speaking of neutral modality and producing a quantifiable estimate is quite challenging, since such cases are almost non-existent; however, we singled out some political or sports event renditions, statistics, universal facts, e.g. *10,500 athletes from all over the globe will gather to compete in the SUMMER OLYMPICS...* or *Budapest took over the rotating presidency of the EU Council at the start of July*. However, in the first one, as the news texts unfold we face the neutral front fade away as France's internal problems overshadow the Olympic content. Nevertheless, we have singled out 35 cases of neutral modality detached from larger narratives as these serve a backdrop for the more conspicuous modality cases.

RT's coverage resorts to outright rudeness, as in the story titled *Putting Ukraine first is 'a middle finger in the face' of Americans – Tucker Carlson*; even if RT resorts to direct speech verbatim, it does make a difference whether it is used in the main text or in the headline. Derision towards ordinary Americans is forefronted at the level of commonplace mockery, and since agentless modality is applied, the implied culprit is the only other political entity mentioned in the title besides Americans. RT, however, claiming to provide a comprehensive alternative view, ignores the support for Ukraine that comes from the very people of America, regardless of what the mainstream politics is, such as "Crates for Ukraine", "Uniting for Ukraine", "USAID."

Authorization modality comes to the fore in (11), pursuing the policy of a "friendly" Russia, and that it is in the best of interests for Americans. Helping Kyiv, which, in the RT's inability to adapt to the sovereign place names, is still russianized *Kiev*, and fighting against Russian totalitarianism is belittled to a scornful *narrative*, speaking of which, the last claim of political degradation of Ukraine is indeed RT's narrative.

(11) Carlson is a long-time critic of the Ukraine policy conducted by the administration of President Joe Biden. He has rejected claims that bolstering the country against Russia is in the interests of the American people. He also criticized the narrative that

sending money to Kiev defends democracy, citing the country's slide towards authoritarianism under Vladimir Zelensky.

The paragraph attaches a negative modality to the Ukrainian president in a manner of attributing to Mr. Zelensky the quality and the name of the Russian president. The name of Ukrainian president spells "Vladimir" instead of "Volodymyr", which fact is ignored by RT.

It's customary of RT to refer to Ukrainians as (neo)-Nazis, as in (10) above, yet in this title it is most forefronted, *Neo-Nazi ex-MP shot dead in Ukraine*. The subtitle, *Irina Farion has been gunned down outside her Lviv home*, discursively pays more weight to the killing rather than to the personality of the deceased (12), forefronting her only merit, *Neo-Nazi*. Much as she defended the rights of the Ukrainian language, RT did not deign to spell her name according to the rules of Ukrainian to English transcription *Iryna*, as well as of Ukrainian President as *Vladimir* in (11), which equals to referring to Putin as *Volodymyr*. Such deliberate disrespect and political sloppiness happens elsewhere, e.g. in American politics (Kornfield, 2024).

(12) Farion was a member of the extreme-right 'Svoboda' (Freedom) party, formerly known as the Social-National Party of Ukraine, led by neo-Nazi Oleg Tyagnibok. A Kiev hotel room in which she lived was reported to have been used by far-right activists to shoot civilians during the so-called 'Maidan' coup in the city in 2014. Farion expressed open sympathy for WWII neo-Nazi collaborator Stepan Bandera.

Moscow has repeatedly condemned Ukrainian laws restricting the use of the Russian language and policies aimed at eroding cultural and historical ties with the neighboring state.

Actually, there is no tribute to the deceased, rather than promoting Russia's policies of misinformation, in which it whitewashes the pro-Russian governmental atrocities against the demonstrators by putting the blame on the Ukrainian far-right. As the narrative rolls into the second paragraph, it turns into an invective of moral modality of the preachings on behalf of Russia. Promoting the indigenous language of a country on its own land has always been natural. However, Russia, after the centuries of forceful russification, censoring and annihilating Ukrainian language and culture, in 2014 does not choose to see anything but *de-russification*. This narrative does not show the slightest trace of respect to the language of a much richer history and the same Slavic group of the Indo-European family.

Moral and intentional modality in such phrases as *repeatedly condemned*, *eroding cultural and historical ties*, testifies to a sign of erosion of commonsensical values and adherence to the most barbaric way of commemorating a deceased

one, and a total ignorance of the more civilized tradition encapsulated in the Latin proverb “De mortuis nil nisi bonum.”

There are 116 detected cases of moral modality in the corpus generally aiming at the “wrongdoings” of the West, with RT’s scenario of putting Russia in a most righteous position, (Gaufman, 2017, p. 18). There are also 316 cases of reported modality, which enable RT to somewhat distance itself from the narrative and thus from the responsibility for the offered content. Our observations reveal that RT resorts to reported modality whenever the information is either not too convenient for Russia ideologically or when the suspected motifs of lessening the readers’ credibility in the content are quite obvious, e. g. *The White House reportedly gave Kiev permission to use some of the American missiles to attack military targets across the border from Kharkov Region in late May.*

There are news stories with relatively less intensive modality, such as *Air India sends relief plane to US-bound passengers stranded in Russia*, nonetheless the overall message is how safe and efficient Russian airspace is, triggering expressive and evaluative modality; or *Trump tells Zelensky he’ll end war*, where the story posits the reassuring modality of a promise to end the war and casts doubts on the legitimacy of the current Ukrainian government; *Top NATO general claims Ukraine has ‘great’ war strategy*, filled with the irony of hatred towards both the US and Ukraine. Being unable to list every single manifestation of modality types throughout the analysis, we will provide quantitative data in Conclusion.

Qualitative Data Results

Modality, as a measure of the degree of speakers’ affinity with their statements, is a powerful tool of rendering the ideologically biased content as was seen in the analysis of our corpus. In order to convey Russia’s supremacy mainly epistemic modality with its divisional kinds of speculative, assumptive, expressive, authoritative, emotional and moral modality is employed. However, the prevailing type for the latter is the modality of negativity, as well as expressive and moral modality, which assign enmity, baseness and moral inferiority to the enemy camp.

Through epistemic and, to a lesser degree, deontic modality of a webcaster, RT’s narratives fit into the Moscow ideology of a strong coalition of warmongering states united by Ukraine’s plight, while Russia or Moscow, as if inadvertently, discursively assume a less belligerent stance. Dynamic conflicting modality further propagates a relentless stance towards the West, with, e.g.

warned against further steps, could prompt a mirror response, pervading the entire corpus as amplification of Russia's premonitions.

In fact, objective modality of news reportage prevails throughout the corpus and produces an impression of providing the unmediated truth. It covers mainly the predication centers, which introduce weaker themes and function as a front, while subordinate and other non-predicational constructs are prone to deliver the key ideological content. Such imbalance portrays RT as a less devoted promoter of alternative ideas, despite its slogan "Question More." RT quite often draws on intense insisting modality as in (08). The cases of lexicalized modality of tendentious narratives are also peculiar on RT, e.g. in (09), (12). On the one hand, RT strives to produce an impression of a neutral observer through the extensive use of factive reporting; on the other, though, it deviates into the realm of approximation, emotional and expressive discourse via more subjective modality and emotionally charged lexis (Fowler, 1991, p. 74).

RT demonstrates its strong involvement in the issues of Russia's national security, the praise of its military capabilities and the right decisions; furthermore, it is disparagingly critical of Russia's enemies. The harsh vituperation throughout the corpus directly mirrors Russia's military aggressiveness on the ground and in the air. However, its ideological warfare is fought against the backdrop of Russia's self-imaging as a peaceful nation acting according to international law. Modality cases detected in our corpus underpin its narratives and continue causing ideological harm among global communities.

Quantitative Data Results

Out of 93 stories, 59 contain anti-western content or 63.4 %, 14 are quite neutral or 15.0 %, and 20 are pro-Russian or 21.5 % if titles are considered. However, out of 919 paragraphs of news text, these categories are distributed as 496 or 54 %, 173 or 18.8 % and 250 or 27.2 %, respectively.

By comparing the current corpus with that on the Venezuela crisis, the intensity of the coverage in both corpora can be traced in the following findings (see Table 2).

Table 2
The Intensity of the Coverage in Both Corpora

Modality Types

Venezuelan Crisis of 2019-20

Russia's War on Ukraine in 2024

epistemic modality, when the journalists report the factual status of the reportage (indicative mode (*is/was, will+verbs, happened, arrived, achieved,*

<i>escalate</i>), verity attributes (<i>true, indeed, real(ly), no doubt</i>), nominals (<i>poll, sanctions, deprivation</i>)	
1,182 out of 1,755 sentence possibilities ¹	1,328 out of 1,713 sentence possibilities
<i>authoritative modality</i> , when the focus of expertise is shifted towards an expert (<i>said, explained, proclaim</i>)	
161 out of 1,755	224 out of 1,713
<i>speculative modality</i> , when varying interpretations of the events or decisions are given or various degrees of certainty in the source (<i>seem, apparently, allegedly, controversial, gambit</i>)	
372 out of 1,755	285 out of 1,713
<i>deductive and assumptive modality</i> , which is prominent in drawing inferences from the observable data and general knowledge (<i>you know, arguably, repeatedly, would be (liable, willing)</i>),	
74 out of 1,755	84 out of 1,713
<i>reported modality</i> , when evidence is received from the third parties (<i>according to, reportedly, quote</i>)	
372 out of 1,755	316 out of 1,713
<i>moral modality</i> , when certain moral values are offered as a reasoning factor (<i>servile, violate, side with, subvert the constitution, rightly</i>)	
84 out of 1,755	116 out of 1,713
<i>intentional modality</i> , when the will of the speaker is brought forward (<i>bid for, insist, agree, prompt, plan, intend</i> , adverbs like <i>even (though)</i> , conjunctions <i>as well as</i>)	
87 out of 1,755	118 out of 1,713
<i>the modality of negativity</i> , when linguistic units, negative in either form or in meaning, create the discourse of criticism and non-acceptance (<i>criticize, reject, refuse, block, delegitimize, denounce, complicit, no (method, way), hostilities, backlash, crimes against, insurrection, decouple</i>)	
464 out of 1,755	254 out of 1,713
<i>Ironic modality</i> (<i>US-fueled, Trump's circle of dimwits, ever-obliging European vassals, backfire</i>)	
49 out of 1,755	38 out of 1,713
<i>Emotional modality</i> (<i>aggressive, all of a sudden, to put it mildly, absolutely, fed up with, fatal, shameful, desperate, cloying, tawdry, flagrant, impetuous, flimsy, capricious</i> ; including questions, exclamations, witty comments)	
188 out of 1,755	87 out of 1,713
<i>Neutral modality</i> (introductory segments, universal facts, statistics)	
59 out of 1,755	28 out of 1,713

¹ We assume that a sentence usually contains one dominant modality; however, it may feature more than one piece of modality, and never includes all the selected types of modality. Hence, the total of all the counts does not equal the sentence total of the corpus.

Based on the above data, using Jamovi software a Mann-Whitney U test was conducted to compare the frequency of anti-West modalities between the two corpora: on the Venezuelan crisis of 2019-2020 and Russia's War on Ukraine of 2022 onwards. This non-parametric test was selected because it does not require the assumption of normality in the data distribution, which is particularly important given the small sample sizes ($n = 11$ per group) and the high variability in the data, as indicated by the standard deviations ($SD = 19.0$ for Venezuela, $SD = 21.5$ for Ukraine).

The results indicated that there was no significant difference in the frequency of anti-West modalities between the Venezuelan corpus (Median = 9.17, $SD = 19.0$) and the Ukrainian one (Median = 6.89, $SD = 21.5$), $U = 58.0$, $p = .895$. The mean difference was -1.14 ($SE = 5.72$), with a 95% confidence interval ranging from -9.80 to 8.29 .

Discussion and Conclusion

The findings of our research testify to the fact that RT's propaganda is disseminated via more subtle means than ubiquitous fact-checking services that offer publicly accessed bias ratings (Mantzaris & Valeeva, 2017). Modality cases defined in our research attenuate the representation of unfavourable factuality for RT, as well as aggravate the ideologically biased propositions directed against the Western camp, and may range from sharing Russia's real existential threat to wielding its strong power against the bloc. We might never arrive at the core intentions of such messages, but in the world of discursive practices of political news creating and sustaining apprehensions about future developments often assume a life of their own.

Modality, used as a supportive device in rendering the news stories in the desired discursive manner, is a less evident, but potent tool to exert leverage on the minds and hearts of global audiences to a degree that there seems to be less and less reporting on Russia's breach of words of February 18, 2022, when RT news item cited: *Russia has vehemently rejected the accusations of hatching any plans to use force against Ukraine...* Strong stative modality of the above utterance turned out to be the international-level falsehood, however, as can be seen, even big lies can be covered by profuse state funding and the world still consumes the Kremlin commissioned news.

As could be gleaned from this article, modality analysis might be one of the CDA tools in identifying a news provider's ideological intentions contained within the textual news discourse. Lessons drawn from the research of RT's journalistic principles of modality distribution may lend insight into the RT's propaganda techniques and raise global audiences to a new level of media literacy in the complex media world.

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Typical linguistic errors committed by tertiary students in legal written outputs

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Abstract. Legal English writing, which demands precision, formal tone, and adherence to specific conventions, presents significant challenges for English as a Foreign Language (EFL) learners due to the complexity of syntax, specialized legal vocabulary, and rigid grammatical structures. This research examines how these morphological, lexical, syntactic, and mechanical errors impact writing performance and explores the relationship between the frequency of errors and overall writing proficiency. Conducted at Hanoi Law University, Vietnam, the study followed 57 students majoring in legal English through three assessment phases: Pre-Test, Post-Test no.1, and Post-Test no.2. The research utilized a longitudinal quantitative design, analyzing the evolution of participants' writing over time and evaluating common grammatical errors they faced. Results showed notable improvements in both morphological and lexical accuracy, evidenced by a reduction in error rates and greater consistency in participants' performance. The proportion of respondents achieving higher proficiency levels (Intermediate and Upper-Intermediate) increased significantly, particularly in morphological and lexical domains. However, syntactic errors exhibited more complex patterns, with some improvements but continued challenges, suggesting that syntactic accuracy requires more focused and specialized intervention strategies. Mechanical errors remained relatively stable, with slight fluctuations, reflecting a steady performance in this area. Overall, the findings highlight the effectiveness of targeted instructional strategies in enhancing learners' linguistic accuracy, particularly in morphological and lexical errors, while underscoring the need for teachers' tailored interventions to improve students' syntactic competence in legal English writing skills.

Keywords: grammatical structures, instructional strategies, linguistic errors, longitudinal quantitative design, writing performance.

Нгуен Ай Нган, Туан Ван Ву. Типові мовні помилки студентів вищих навчальних закладів у письмових текстах юридичного змісту.

Анотація. Юридичне письмо англійською мовою, яке вимагає точності, офіційного тону та дотримання певних конвенцій, становить значні труднощі для тих, хто вивчає

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англійську як іноземну, через складність синтаксису, спеціалізовану юридичну лексику та жорсткі граматичні структури. Це дослідження вивчає, як ці морфологічні, лексичні, синтаксичні та механічні помилки впливають на якість письма, а також досліджує зв'язок між частотою помилок і загальним рівнем володіння письмом. Дослідження, проведене в Ханойському юридичному університеті, В'єтнам, охопило 57 студентів, які вивчають юридичну англійську мову, і складалося з трьох етапів оцінювання: Передтестове тестування, післятестове тестування № 1 та післятестове тестування № 2. У дослідженні використовувався поздовжній кількісний дизайн, який аналізував еволюцію письмових робіт учасників з плином часу та оцінював типові граматичні помилки, з якими вони стикалися. Результати показали помітне покращення як морфологічної, так і лексичної точності, про що свідчить зменшення кількості помилок та більша узгодженість у роботах учасників. Частка респондентів, які досягли вищих рівнів володіння мовою (Intermediate та Upper-Intermediate), значно зросла, особливо в морфологічній та лексичній сферах. Однак синтаксичні помилки демонстрували більш складну структуру, з деякими покращеннями, але з постійними проблемами, що свідчить про те, що синтаксична точність вимагає більш цілеспрямованих і спеціалізованих стратегій втручання. Кількість механічних помилок залишалася відносно стабільною, з незначними коливаннями, що свідчить про стабільну роботу над помилками.

***Ключові слова:** граматичні структури, навчальні стратегії, мовні помилки, лонгітюдний кількісний дизайн, продуктивність письма.*

Introduction

Mastering English linguistic features is crucial for writing competence, especially for learners in countries where English is taught as a foreign language (EFL). Writing is one of the four basic skills in English language acquisition, alongside listening, speaking, and reading skills. However, it is often the most challenging task for EFL learners due to the complexity of English grammar, vocabulary, syntax, and discourse conventions (Ali et al., 2024; Enesi & Trifoni, 2023; Mezrigui, 2021). It is widely recognized that English grammar is the foundation of any language, and its complex system of tenses, aspects, modal verbs, articles, prepositions, and word order can pose challenges for non-native speakers (Alghazo & Alshraideh, 2020; Anh et al., 2022; Fitrawati & Safitri, 2021). Vocabulary is fundamental for writers to express themselves effectively, but EFL learners often face difficulties in choosing the right words for their writing (Arachchi, 2016; Jayasundara & Premarathna, 2011; Manik et al., 2017). Cohesion, the use of linguistic devices to link ideas within and between sentences, is necessary for ensuring the reader can follow the writer's argument or narrative without confusion (Johnson et al., 2017; Nguyen, 2020a; Chitondo, 2021). Coherence, the overall logical flow of ideas in a text, is essential for a coherent text. EFL learners often struggle with coherence due to not being familiar with typical organizational patterns of English writing. For example, the structure of an essay in English may differ from the writing

conventions in their native language, and learners may have difficulty maintaining a consistent corpus or transitioning smoothly between ideas (Mezrigui, 2021; Nuraini, 2019; Phetdannuea & Ngonkum, 2016). Genre conventions, such as formal language, precise vocabulary, and a clear thesis statement, also play a role in writing competence (Ali et al., 2024; Contreras, 2024; Pham & Pham, 2024).

English linguistic features are crucial in shaping communication across different domains, including English for specific purposes (ESP) and general English (GE). Legal linguistics focuses on how laws are articulated, interpreted, and enforced through language, while general linguistics studies language in various forms and functions, from everyday communication to literary expression (Coulthard et al., 2016; Tomson, 2024; Vu & Le, 2023). Both fields share fundamental linguistic features, including syntax, vocabulary, pragmatics, and semantics (Biel, 2024; Durant & Leung, 2016; Kaplan, 2019). Syntax, the arrangement of words into sentences, is foundational to systems of languages, using the same grammatical rules of the English language. Vocabulary choice in legal linguistics is more precise and technical to avoid ambiguity, while in general linguistics, communication allows more flexibility and deduces from linguistic settings for clarity (Williams, 2022). Semantics, the study of meaning, is critical in both domains to understand how words and sentences produce meaning. Legal semantics concentrates on the precise interpretation of terms to ensure correct communication and enforcement of legal rights, obligations, and laws (Lin et al., 2020). Pragmatics addresses how context influences meaning, which is important in both domains. In legal linguistics, the context of legal texts often determines how certain phrases or clauses should be interpreted. In general linguistics, the social, cultural, or conversational context shapes how language is understood (Ali et al., 2024; Galdia, 2021; Kaplan, 2019). Discourse analysis, the study of language use in extended communication, is relevant in both domains, covering a wider variety of texts and contexts. Legal and general linguistics differ significantly in their complexities, purposes, and language use. Legal English is rich in technical terms, jargon, and archaic words, while general linguistics is more accessible and adaptable (Glogar, 2023; Hassan et al., 2019; Phetdannuea & Ngonkum, 2016). Besides, legal English is highly formal and rigid in tone, especially in written legal documents, while general linguistics allows for more flexibility in everyday language. In its essence, legal linguistics is characterized by complex sentence structures with long sentences, passive constructions, and nominalizations. It aims for precision and clarity, avoiding ambiguity to ensure legal rights and obligations (Coulthard et al., 2016). Legal drafters use

particular language and redundancies to minimize multiple interpretations. In contrast, ambiguity is more common in general linguistics, allowing for different interpretations based on context, tone, and the relationship between speakers. Lastly, legal English often preserves archaic terms and phrases, ensuring consistency in legal interpretation across time; by contrast, general linguistics is more dynamic and evolving, with new words, slang, and expressions being added regularly. This adaptability makes general English more flexible but less stable over time compared to legal English (Kaplan, 2019; Williams, 2022).

Legal writing is distinct from other types of writing skills due to its specialized nature, formal tone, and the need for precision and clarity (Durant & Leung, 2016; Glogar, 2023; Vu & Le, 2023). In particular, legal texts are characterized by complex syntax, commonly extended, convoluted sentences with multiple clauses, which can confuse EFL learners. Besides, legal terminology includes terms of art, legal jargon, and Latin phrases, which often need to be clarified for EFL learners, so mastering lexical terms is crucial for accuracy in legal writing (Fitrawati & Safitri, 2021; Manik et al., 2017; Vu & Le, 2023). Featured by legislative normative documents, legal writing must avoid ambiguity, a challenge in languages with a wide range of synonyms or flexible grammatical structures, but it is prone to multiple interpretations due to the inherent flexibility of natural language (Durant & Leung, 2016; Mooney, 2022). Consequently, EFL learners may struggle with recognizing when language is too vague or when precision is needed. They may find it challenging to achieve the formal tone required in legal writing. The use of modal verbs (e.g., "shall," "must," "may") to convey obligation or permission is often challenging for learners used to more straightforward syntactic structures (Arachchi, 2016; Enesi & Trifoni, 2023; McMEnamin et al., 2002). Currently, testing and assessment emphasize the multiple-choice approach, minimizing writing skills, especially ESP writing skills like legal written outputs. Currently, it poses significant challenges for legal writing in EFL countries, but there needs to be more research on how legal linguistic features affect the proficiency of English legal writing skills (Le, 2023; Nguyen, 2020b; Kham et al., 2023). As such, this study aimed to analyze linguistic errors in depth, focusing on the morphological, syntactical, lexical, and mechanical features that complicated legal writing for EFL learners. Specifically, it sought to answer the following questions:

1. What are the errors committed by the participants in legal writing in terms of morphological, syntactical, lexical, and mechanical features?
2. What is the relation between the participants' writing performance and their frequency of legal writing errors?

Literature Review

As language acquisition involves improving four basic skills classified into receptive skills – listening and reading, and productive skills – speaking and writing skills. As one of the two productive skills, English writing skills have been widely recognized as fundamental across academic, professional, and social contexts. Arifin et al. (2019) claim that writing is not merely a method of communication but also a tool for learning and thinking, so proficient writing reflects clear thinking and supports deeper cognitive processes such as organizing, synthesizing, and evaluating ideas. Researchers (e.g., Anh et al., 2022; Gustira et al., 2020; Phuket & Othman, 2015) highlight the importance of academic writing, noting that it fosters critical thinking and the ability to engage with complex ideas. Writing in English is an integral part of learning in higher education, where essays, theses, and research papers are used as vehicles to assess students' comprehension and ability to argue logically. Moreover, in the workplace, effective writing is essential for professional communication, including reports, business emails, and proposals. According to Pourshahian (2021), organizations often place a high value on employees who can write clearly and persuasively, as this skill enhances both individual and organizational performance. As English remains the dominant global language for business and science, writing proficiency in English is also linked to international collaboration and career mobility (Biel, 2024). Therefore, English writing skills play crucial roles in professional or academic environments, and personal expression. Writing encourages introspection and lifelong learning, as supported by research on journaling and reflective writing (Anh et al., 2022; Enesi & Trifoni, 2023; Nguyen, 2020(a)). When expressing their thoughts through writing, individuals refine their self-awareness and communication abilities.

ESP refers to the teaching and learning of English tailored to meet the language needs of individuals in particular fields, just as laws (Ali et al., 2024). It emphasizes the importance of contextual relevance, enabling learners to develop communicative competence in professional or academic environments where specialized language is required. Specially, legal English, a significant branch of ESP, presents unique challenges due to the complexity and precision required in legal contexts. More specifically, legal English writing is a specialized skill within ESP that requires precision, clarity, and adherence to specific conventions. It holds particular importance for legal practitioners, academics, and policymakers who operate in English-speaking or internationally-oriented legal contexts. In legal contexts, precision is crucial because ambiguity

in contracts, statutes, or court documents can result in misunderstandings, disputes, and legal liabilities (Garner, 2023). Legal English requires writers to use precise terms, structured syntax, and logical reasoning to ensure that the intended meaning is clear. In addition, mastering legal writing allows professionals to express complex ideas succinctly and avoid potential litigation risks caused by unclear language. Legal English follows strict conventions and formatting guidelines that distinguish it from general academic or professional writing (Gustira et al, 2020). These conventions include specific terminologies, such as “hereby,” “aforesaid,” and Latin expressions like *pro bono* or *amicus curiae*. Legal writing also involves organizing documents logically, adhering to citation styles (e.g., Bluebook or OSCOLA), and structuring arguments in ways accepted within the legal community. Legal English writing demands more than just linguistic proficiency – it also requires critical thinking, argumentation, and analytical skills (Fitrawati & Safitri, 2021). Legal professionals must construct persuasive arguments, evaluate precedents, and draw logical conclusions based on evidence. Mastery of legal writing enhances the writer’s ability to craft coherent, well-supported arguments, which is essential for success in legal practice. As English is the predominant language of international law, fluency in legal English provides professionals with access to global legal systems, enhances credibility, and enables participation in cross-border litigation or arbitration (Mooney, 2022). Many law firms, multinational corporations, and international organizations seek professionals with strong legal English skills to navigate complex transactions and ensure compliance with international regulations.

The distinction between mistakes and errors in language writing is somewhat confused. They are often used interchangeably but are not the same. Mistakes are slips or lapses that can be self-corrected, such as misspellings or incorrect punctuation, and they do not specify a lack of understanding of language rules. Whereas errors pose a deeper issue with grammar, syntax, vocabulary, or language rules, and they occur consistently because the writer still needs to understand the correct form or usage. Errors can be classified as treatable or global errors, interfering with the comprehensibility of a text, or untreatable or local errors not impeding understanding (Corder, 1981). In Ferris’ (2011) classification, syntactic errors are considered global, while mechanical and lexical mistakes are local. Specifically, morphological errors, concerning mistakes in the form and structure of words, are a significant emphasis in English language learning, particularly in writing skills. These errors often arise from the complexities of English inflectional and derivational morphology, with learners often misapplying rules due to limited exposure or

inadequate instruction (Ali et al., 2024; Enesi, & Trifoni, 2023). Interference from the first language (L1) is a major factor, as learners from languages that lack inflectional morphology tend to omit suffixes, leading to errors like leaving out past tense markers (Biel, 2024). Lexical errors, involving word choice and usage mistakes, are widely recognized as a common challenge in English language writing. These errors include mis-selection, misuse, and mis-formation of words, which can obscure meaning and impact overall writing clarity (Contreras, 2024; Johnson et al., 2017; Phetdannuea, & Ngonkum, 2016). Researchers (e.g., Anh et al., 2022; Fitrawati & Safitri, 2021; Singh et al., 2017) have identified various causes and types of lexical errors, emphasizing their importance in language learning and assessment. One primary source of lexical errors is negative language transfer, where learners apply vocabulary rules or assumptions from their L1 to English. Syntactic errors, such as mistakes in sentence structure and grammatical arrangement, are a prevalent issue in English language writing, particularly among non-native speakers. These errors range from incorrect word order and sentence fragments to issues with subject-verb agreement and clause structure. Syntactic errors can significantly affect the readability and coherence of writing, making them an essential focus for language instructors and researchers (Ngaiza, 2023; Pham, & Pham, 2024; Xu & Casal, 2023). Studies (e.g., Alghazo & Alshraideh, 2020; Chitondo, 2021; Jasim & Tan, 2017) suggest that explicit instruction, regular practice, and corrective feedback are effective methods to address these errors. Teaching approaches that emphasize parsing sentence structures, analyzing syntax, and practicing cohesive writing have been shown to reduce syntactic errors, thereby improving overall writing quality. Mechanical errors, referring to mistakes in spelling, punctuation, and capitalization, are frequently observed in English language writing. Moreover, mechanical accuracy is essential for readability and helps convey a polished and professional tone, so mechanical errors may result from several sources, such as learners' limited exposure to English orthographic rules or inconsistent practice (Jasim & Tan, 2017; Nguyen, 2020b; Widyasari et al., 2022). Teaching strategies including dictation exercises, spelling games, and punctuation drills have been effective in reducing mechanical errors. Encouraging students to proofread and self-edit their work helps develop a more meticulous approach to writing, which can minimize these errors. Overall, correcting mechanical errors is fundamental for language learners, as it contributes to the clarity, accuracy, and professionalism of written English, making the text more comprehensible and credible for readers.

Method

Research Design

The descriptive research was conducted at the Faculty of Legal Foreign Languages, Hanoi Law University, Vietnam, with 57 students majoring in Legal English during the first term of the 2024-2025 academic year. This study employed a longitudinal quantitative approach to get a comprehensive insight into students' tendencies to commit linguistic errors, especially morphological, lexical, and mechanical errors in writing legal correspondence. The participants took three written legal correspondences: a Pre-Test, a Post-Test no.1, and another Post-Test no.2 at periodic term periods. Based on the results from the three tests, some conclusions were made to identify the common grammatical features affecting the participants' progress in improving their legal writing skills.

Participants

The participants came from the faculty of legal English major students at Hanoi Law University, Vietnam. They were junior students studying a basic legal English subject in a three-credit module during the first semester of the 2024-2025 academic year. Among 57 participants, the study included 46 female students, accounting for 80.7 %, and 11 male ones, equivalent to 19.3 %. Regarding their place of residence, the majority of them came from rural areas ($n = 37$; equal to 64.9 %), and 16 students, making up 28.1 %, were from urban areas. The lowest number was those whose hometowns were in mountainous areas ($n = 4$; same as 7.0 %). On questioning the participants' language exposure, 42 students (constituting 73.7 %) usually used English to communicate with foreigners, and eight participants, taking up 14.0 %, stated that they sometimes needed to use English at their part-time jobs. Only seven students, representing 12.3 %, asserted that they always communicated in English at work. Regarding students' part-time jobs, most students ($n = 49$; equivalent to 85.9 %) claimed to have a part-time job relating to their major with the purpose of practising their English ability, and four participants contributing 7.01 %, did not want to have a part-time job.

Research Instruments and Procedure

The participants were asked to write three letters relating to the client's legal advice correspondence at different periods of time, which were named a Pre-

Test, a Post-Test no.1, and a Post-Test no.2. The themes for writing tasks were the same with a free-writing style in which the participants were assigned to write a letter to a client to advise them on a legal matter. These writing tasks were conducted during three months, namely the Pre-Test implementing the early three-week subject, the Post-Test no.1 in the middle of the subject, and the Post-Test no.2 at the end of the subject. The students' writing papers were carefully marked and classified into four groups according to the errors they committed in their writing performance. The results were collected, scrutinized, and used the computing applications IBM SPSS v.27 to analyze to get reliable outcomes.

Statistical Tools

The data had gone through the data screening process before using IBM SPSS v.27. Frequency counts, and percentages were used to describe the profile variables and errors committed by the respondents. In addition, ANCOVA was employed to evaluate the common grammatical errors the participants committed in these three writing assignments. Based on the outcomes, the conclusion would be made to show the common linguistic features in students' legal written correspondence.

Results and Discussion

Table 1, which details participants' linguistic errors in written outputs across three assessment phases: Pre-Test, Post-Test no.1, and Post-Test no.2 (see Appendix A) reveals a significant and positive trend in the reduction of morphological errors among the 57 participants. Initially, in the Pre-Test, a majority of participants (52.6 %) fell within the Low Intermediate level, committing between 7 to 9 morphological errors, while 40.3 % were in the Intermediate category with 4 to 6 errors. A smaller segment of 3.5 % was categorized as Upper-Intermediate (1-3 errors), and another 3.5 % were at the Pre-Intermediate level (10-12 errors), with no participants in the Basic category. The mean number of errors at this stage was 7.34, accompanied by a standard deviation of 1.32, indicating a moderate level of variability in performance. Following the first intervention phase, Post-Test no.1 shows a marked improvement: the Intermediate category expanded to encompass 61.4 % of participants, while the Low Intermediate category dramatically decreased to 22.8 %. Concurrently, the proportion of participants in the Upper-Intermediate level rose to 15.7 %, and the Pre-Intermediate level was entirely eliminated. The

mean number of errors declined to 6.14, and the standard deviation reduced to 1.16, suggesting not only a decrease in average errors but also a slight increase in consistency among participants' performances. Considering Post-Test no. 2, the improvements became even more pronounced since the Intermediate category surged to 73.6 %, and the Upper-Intermediate level increased further to 22.8 %, while the Low Intermediate category plummeted to a mere 3.5 %. Notably, no participants remained in the Pre-Intermediate or Basic categories, indicating that all participants had achieved a higher level of morphological accuracy. The mean number of errors continued to decrease to 5.0, and the standard deviation sharply declined to .09, highlighting a high level of consistency and minimal variability in error rates across participants. Overall, the data clearly demonstrate that the interventions implemented between the Pre-Test and the subsequent Post-Tests were highly effective in reducing morphological errors. The consistent decrease in mean errors, coupled with the reduction in standard deviation, underscores not only an overall improvement in linguistic accuracy but also a homogenization of performance levels among participants. The shift of participants from higher error categories to the Intermediate and Upper-Intermediate levels further signifies enhanced morphological competence. These findings signify that the instructional strategies employed were successful in fostering greater linguistic precision and consistency, thereby improving the written outputs of the participants over time.

Concerning the participants' lexical errors in written outputs, the results from Table 1 specify that initially, in the Pre-Test phase, a significant majority of participants (61.4 %) fell within the Intermediate level, committing between 4 to 6 lexical errors. This was closely followed by the Upper-Intermediate category, where 21.0% of participants made only 1 to 3 errors, and a smaller portion (17.5 %) were in the Low Intermediate category with 7 to 9 errors. Notably, no participants were categorized in the Pre-Intermediate (10–12 errors) or Basic (13–15 errors) levels, indicating that lexical error rates were relatively contained even before any intervention. The mean number of lexical errors at this stage was 5.38, with a standard deviation of 1.09, denoting a moderate level of consistency in participants' performance. Following the first intervention phase, Post-Test no.1 demonstrates a slight improvement in lexical accuracy. The Intermediate category saw a marginal increase to 63.1 %, indicating that more participants maintained their error rates within this range. Concurrently, the Upper-Intermediate category grew to 28.0 %, reflecting an increase in the proportion of participants committing fewer errors (1–3), which is a positive indicator of enhanced lexical proficiency. Meanwhile, the Low Intermediate

category decreased substantially to 8.7 %, showcasing a reduction in the number of participants making higher numbers of lexical errors (7–9). Importantly, the Pre-Intermediate and Basic categories remained unpopulated, consistent with the Pre-Test results. The mean number of lexical errors slightly declined to 5.29, and the standard deviation decreased to 0.95, suggesting not only a minor reduction in average errors but also increased consistency in participants' performance post-intervention. According to Post-Test no. 2, the data show a continued and more pronounced improvement in lexical accuracy. The Intermediate category further expanded to 71.9 %, solidifying the trend of participants maintaining lower error rates. The Upper-Intermediate category remained stable at 28.0 %, indicating sustained improvement among participants with initially lower error rates. Notably, the Low Intermediate category was entirely eliminated, with no participants committing 7 to 9 lexical errors, signifying a successful reduction in higher error rates. The mean number of lexical errors decreased to 5.00, and the standard deviation sharply declined to 0.68, highlighting a significant enhancement in both the average lexical accuracy and the uniformity of performance across participants. Overall, the data from Table 1 demonstrate that the interventions implemented between the Pre-Test and the Post-Tests were effective in reducing lexical errors among participants. The consistent decrease in mean lexical errors from 5.38 in the Pre-Test to 5.00 in Post-Test no. 2, alongside the reduction in standard deviation from 1.09 to .68, underscores not only an improvement in average performance but also a greater consistency in lexical accuracy across the participant group. The increase in the proportion of participants within the Upper-Intermediate and Intermediate categories, coupled with the elimination of the Low Intermediate category by Post-Test no.2, underlines that more participants achieved higher levels of lexical competence. These findings connote that the instructional strategies employed were successful in enhancing participants' lexical precision and reducing variability in error rates, thereby improving the overall quality of their written outputs. Future research could further explore the specific elements of the interventions that most effectively contributed to lexical error reduction and assess the long-term sustainability of these improvements through additional follow-up assessments.

The participants' syntactic errors reveal a more nuanced and less uniformly positive trend compared to the previously examined morphological and lexical errors. In the Pre-Test, out of 57 participants, a substantial majority (50.8 %) was within the Low Intermediate category, committing between 7 to 9 syntactic errors. This was followed by 28.0 % of participants in the Pre-

Intermediate level (10–12 errors), 15.7 % in the Intermediate category (4–6 errors), and a small fraction of 3.5 % each in the Upper-Intermediate (1–3 errors) and Basic (13–15 errors) categories. The mean number of syntactic errors was 9.43 with a standard deviation (SD) of 1.82, indicating a relatively high average error rate with considerable variability among participants. Upon examining Post-Test no.1, there is a slight decrease in the mean number of syntactic errors to 8.83 and a reduction in the standard deviation to 1.50, illustrating marginal improvement and increased consistency in participants' performance. However, the distribution of errors presents a mixed picture. The Low Intermediate category saw an increase from 50.8 % to 61.7 %, indicating that a larger proportion of participants remained or moved into this higher error bracket. Conversely, the Pre-Intermediate category experienced a significant decline from 28.0 % to 22.8 %, demonstrating that some participants improved their syntactic accuracy to avoid the higher error range. The Intermediate and Upper-Intermediate categories remained stable at 15.7 % and 3.5 %, respectively, while the Basic category was eliminated, advocating that the single participant who initially fell into this extreme error range no longer did so post-intervention. By Post-Test no.2, the mean number of syntactic errors slightly increased to 8.89, with the standard deviation marginally decreasing to 1.43. The Low Intermediate category decreased from 61.7 % in Post-Test no.1 to 57.8 %, indicating a minor reduction in the proportion of participants with higher error rates. The Pre-Intermediate category stabilized at 22.8 %, maintaining the reduced percentage observed in Post-Test no.1. The Intermediate and Upper-Intermediate categories remained unchanged at 15.7 % and 3.5 %, respectively, and the Basic category continued to have no participants. This stability proves that while some participants maintained lower error rates, the overall improvement in syntactic accuracy was limited. Comparatively, unlike the morphological and lexical error categories, which demonstrated clear and consistent reductions in error rates and increases in higher proficiency levels, the syntactic errors exhibited a more complex pattern. The initial decrease in mean errors from the Pre-Test to Post-Test no.1 represent some level of improvement; however, the subsequent slight increase in Post-Test no.2 articulates that this progress was not fully sustained or that other factors may have influenced syntactic accuracy differently. The persistent high percentage of participants in the Low Intermediate category, despite some improvements, points to syntactic errors being more resistant to the interventions applied or possibly requiring more targeted strategies to achieve significant reduction. The standard deviation's gradual decrease from 1.82 in the Pre-Test to 1.43 in Post-Test no.2 reflects a slight increase in consistency among participants'

performances, though not as pronounced as seen in the morphological and lexical error categories. This asserts that while there was some convergence in syntactic error rates, a wide range of proficiency levels remained, preventing a more uniform improvement across the participant group. Hence, the data from Table 1 mention that the interventions implemented were somewhat effective in reducing syntactic errors, as evidenced by the decrease in mean errors and the reduction of participants in the Pre-Intermediate and Basic categories. However, the substantial proportion of participants remaining in the Low Intermediate category highlights the need for more specialized or intensive strategies to address syntactic accuracy. The relative stability in error distribution from Post-Test no.1 to Post-Test no.2 further underscores the challenges in achieving sustained and significant improvements in syntactic proficiency. Future instructional approaches might benefit from focusing specifically on syntactic structures and providing more targeted feedback to facilitate deeper understanding and long-term retention of syntactic rules, thereby enhancing overall linguistic competence in written outputs.

Table 1 provides a detailed examination of participants' mechanical errors in their written outputs. As glimpsed from Table 1, it shows that during the Pre-Test, a significant portion of the 57 participants (52.6 %) fell within the Intermediate level, committing between 4 to 6 mechanical errors, while 35.0 % were in the Upper-Intermediate category with only 1 to 3 errors. Notably, no participants were recorded in the higher error categories (Low Intermediate, Pre-Intermediate, or Basic), signifying that mechanical errors were relatively minimal and well-managed before any interventions. The mean number of mechanical errors at this stage was 4.74, accompanied by a standard deviation of 0.65, showing a moderate level of consistency among participants' performances. Following the first intervention, Post-Test no.1 showed a slight improvement, with the mean number of errors decreasing to 4.44 and the standard deviation marginally reducing to 0.62. This phase also saw an increase in the Intermediate category to 64.9 %, while the Upper-Intermediate category remained stable at 35.0%, reflecting a minor shift towards maintaining lower error rates. By Post-Test no.2, the mean number of errors experienced a slight uptick to 4.60, although the standard deviation continued to decrease to 0.55, indicating enhanced consistency in performance. Additionally, the proportion of participants in the Upper-Intermediate category increased to 38.5 %, while those in the Intermediate category slightly declined to 61.4 %. Throughout all assessment phases, the absence of participants in the higher error categories underscores the effectiveness of the interventions in maintaining low mechanical error rates. Overall, the data from Table 4 mean that while there

was a modest reduction in mean mechanical errors from Pre-Test to Post-Test no.1, this improvement was largely sustained through Post-Test no. 2, with increased consistency as evidenced by the decreasing standard deviation. The slight increase in the Upper-Intermediate category by Post-Test no. 2 indicates that some participants continued to enhance their mechanical accuracy, contributing to the overall stability and effectiveness of the instructional strategies employed. These findings highlight the success of the interventions in fostering mechanical precision and consistency in participants' written outputs, ensuring that mechanical errors remained low and manageable throughout the study period.

Table 1
Participants' Linguistic Errors in Written Outputs

Level of Errors	Pre-Test (N=57)		Post-Test no.1 (N=57)		Post-Test no.2 (N=57)	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Morphological Errors						
Upper-Intermediate (1-3)	2	3.5	9	15.7	13	22.8
Intermediate (4-6)	23	40.3	35	61.4	42	73.6
Low Intermediate (7-9)	30	52.6	13	22.8	2	3.5
Pre-Intermediate (10-12)	2	3.5	-	-	-	-
Basic (13-15)	-	-	-	-	-	-
	Mean = 7.34; SD = 1.32		Mean = 6.14; SD = 1.16		Mean = 5.0; SD = .09	
Lexical Errors						
Upper- Intermediate (1-3)	12	21.0	16	28.0	16	28.0
Intermediate (4-6)	35	61.4	36	63.1	41	71.9
Low Intermediate (7-9)	10	17.5	5	8.7	-	-
Pre-Intermediate (10-12)	-	-	-	-	-	-
Basic (13-15)	-	-	-	-	-	-
	Mean = 5.38; SD = 1.09		Mean = 5.29; SD = .95		Mean = 5.00; SD = .68	
Syntactic Errors						
Upper-Intermediate (1-3)	2	3.5	2	3.5	2	3.5
Intermediate (4-6)	9	15.7	9	15.7	9	15.7
Low Intermediate (7-9)	29	50.8	35	61.7	33	57.8

Pre-Intermediate (10-12)	16	28.0	13	22.8	13	22.8
Basic (13-15)	1	1.75	-	-	-	-
	Mean = 9.43; SD = 1.82		Mean = 8.83; SD = 1.50		Mean = 8.89; SD = 1.43	
Mechanical Errors						
Upper- Intermediate (1-3)	20	35.0	20	35.0	22	38.5
Intermediate (4-6)	30	52.6	37	64.9	35	61.4
Low Intermediate (7-9)	-	-	-	-	-	-
Pre-Intermediate (10-12)	-	-	-	-	-	-
Basic (13-15)	-	-	-	-	-	-
	Mean = 4.74; SD = .65		Mean = 4.44; SD = .62		Mean = 4.60; SD = .55	

Table 2 provides a summary of the mean scores, standard deviations, and sample sizes (N) for three time points: overall pretest, overall Post-Test no.1, and overall Post-Test no. 2. The mean score for the overall pretest of students' linguistic errors in written outputs is 23.7018 with a standard deviation of 5.88268, indicating the initial level of the measured variable at the pretest stage. Moving to the overall Post-Test no.1, the mean drops to 21.5439 with a slightly reduced standard deviation of 5.25449, signaling a decline in scores from the pretest to the first Post-Test, along with a minor reduction in variability among participants. This downward trend continues in the overall Post-Test no. 2, where the mean score decreases further to 20.4035, and the standard deviation decreases to 4.64012, the lowest of the three time points. The consistent reduction in both the mean score and standard deviation over time highlights that there may be an overall decline in the measured variable across these stages, with the scores becoming more consistent among participants by the second Post-Test. This pattern of results aligns with the previous ANCOVA findings, where significant differences were observed across the three time points, implying that meaningful changes occur from pretest to Post-Tests. The reduction in mean scores reflects that the intervention or condition introduced between these time points may have had an effect, leading to a gradual decrease in the measured outcome. Additionally, the decrease in standard deviations implies less variability among participants' responses over time, which could mark a convergence in behavior or responses due to the effect of the intervention or time itself. These observations emphasize that the intervention may have consistently influenced the participants across the measured phases, so the participants are likely to commit fewer linguistics errors over the time span.

Table 2
Descriptive Statistics of the Longitudinal Tests

	Mean	Std. Deviation	N
Overall Pretest	23.7018	5.88268	57
Overall Post-Test no.1	21.5439	5.25449	57
Overall Post-Test no.2	20.4035	4.64012	57

Table 3 reveals a comprehensive view of the significance, effect size, and robustness of a within-subjects factor's impact on the participants' improvement in reducing linguistic errors in written outputs. The "Overall" effect shows a Type III Sum of Squares of 319.871, which represents the total variance in the students' linguistic errors attributed to the within-subjects factor across different conditions (likely pretest, Post-Test no.1, and Post-Test no. 2). Table 3 presents various sphericity corrections (Sphericity Assumed, Greenhouse-Geisser, Huynh-Feldt, and Lower-bound) to account for potential violations of sphericity, a common assumption in repeated-measures ANOVA that requires equal variances of the differences between conditions. Degrees of freedom (*df*) vary depending on the correction applied, ranging from 2 (Sphericity Assumed) to as low as 1.000 (Lower-bound), which reflect progressively more conservative adjustments. Despite these adjustments, the Mean Square for the Overall effect varies only slightly (from 159.936 to 319.871), and the F value remains consistent at 122.026 across all corrections. This stability in the F value, along with the p-value of .000, underscores the robustness of the effect, suggesting that the differences across conditions in the respondents' linguistic errors are statistically significant and unlikely to be due to chance, even if the assumption of sphericity is violated. Besides, the Partial Eta Squared value of .685 indicates a large effect size, meaning that approximately 68.5 % of the variance in the students' linguistic errors can be attributed to the within-subjects factor. This is a substantial proportion, highlighting that the changes across conditions have a strong and meaningful impact on the students' linguistic errors. The error term, shown in the "Error (Overall)" section, has a Type III Sum of Squares of 146.795 and Mean Square values that range from 1.311 (Sphericity Assumed) to 2.621 (Lower-bound) depending on the *df* adjustments. The relatively low Mean Square values for the error term, compared to the Mean Square values for the Overall effect, reinforce the strength and significance of the observed effect. The consistent significance across all sphericity corrections proposes that the observed differences across conditions are not only statistically significant but also robust, and any

intervention or time-based changes reflected in the students' linguistic errors are meaningful and consistent across participants. This analysis suggests that the within-subjects factor, possibly representing the progression from pretest to posttests, has a significant impact on the students' linguistic errors, supported by both statistical significance and a large effect size, indicating practical relevance.

Table 3
Differences in the Periodic Tests

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Overall	Sphericity Assumed	319.871	2	159.936	122.026	.000	.685
	Greenhouse-Geisser	319.871	1.609	198.826	122.026	.000	.685
	Huynh-Feldt	319.871	1.649	193.957	122.026	.000	.685
	Lower-bound	319.871	1.000	319.871	122.026	.000	.685
Error (Overall)	Sphericity Assumed	146.795	112	1.311			
	Greenhouse-Geisser	146.795	90.093	1.629			
	Huynh-Feldt	146.795	92.355	1.589			
	Lower-bound	146.795	56.000	2.621			

Conclusion

The study demonstrates the significant impact of interventions on participants' linguistic performance, particularly in morphological, lexical, syntactic, and mechanical accuracy. The consistent improvements observed across all linguistic categories, from the reduction of morphological and lexical errors to the more modest yet notable changes in syntactic and mechanical errors, demonstrate the effectiveness of the instructional strategies employed. Morphological errors constituted a clear and sustained improvement from Pre-Test to Post-Test no.2, with a noticeable shift in participants' error categories. This denotes that the intervention provided effective training in morphological competence, allowing participants to refine their linguistic precision and consistently reduce errors over time. The steady increase in the proportion of

participants at the Upper-Intermediate and Intermediate categories highlights the success of the intervention in elevating participants' morphological accuracy. Similarly, the reduction in lexical errors mirrored the trends seen in the morphological errors, with a steady decline in the mean number of lexical errors from Pre-Test to Post-Test no.2, coupled with a decrease in variability among participants. The increase in the proportion of participants at the Upper-Intermediate and Intermediate levels further demonstrates that the interventions led to improved lexical proficiency. This improvement in lexical accuracy, along with the removal of participants from the Low Intermediate category by Post-Test no.2, emphasizes the success of the instructional strategies in enhancing participants' lexical precision and overall written output quality. However, the changes in syntactic errors present a more complex pattern. While there was some improvement in syntactic accuracy following the interventions, the progress was less consistent. The persistence of a substantial proportion of participants in the Low Intermediate category denotes that syntactic errors may require more targeted or specialized approaches to address them effectively. Future studies could consider focusing more specifically on syntactic structures and incorporating strategies that target deeper understanding and retention of these rules. Mechanical errors showed a more stable trend across the three assessment phases. The mean number of mechanical errors slightly fluctuated between Post-Test no.1 and Post-Test no. 2, but the overall reduction in standard deviation indicates improved consistency in mechanical accuracy across the participants. The instructional strategies employed in this study were largely successful in fostering improvements in participants' written output, particularly in reducing morphological and lexical errors, areas where participants demonstrated the most significant progress. However, the more complex nature of syntactic accuracy points out that additional interventions or more focused strategies might be necessary to achieve further improvements in this area. Thus, the study highlights the importance of targeted instructional strategies in addressing different linguistic error categories and offers valuable insights into the impact of such interventions on language learning. Further research could delve deeper into the specific elements of the instructional strategies that contributed most effectively to error reduction, particularly in syntactic accuracy, and explore ways to sustain these improvements over time.

Disclosure Statement

The authors reported no potential conflict of interests.

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Appendix A

CHECKLIST IN ANALYZING ERRORS

1. MORPHOLOGICAL ANALYSIS

Errors in the use of verb

MO1: Wrong verb tense

MO2: Singular verb with plural verb and vice versa

MO3: Incorrect form of verb phrase

Errors in the use of pronoun

MO4: Wrong use of pronoun

MO5: Confusion of its and it's

Errors in the use of noun and article

MO6: Wrong use of singular noun for plural and vice versa

MO7: Omission of article

MO8: Wrong use of article

Errors in the use of preposition

MO9: Omission of preposition

MO10: Wrong use of preposition

2. LEXICAL ANALYSIS

Adjective error

LEX1: Omission of adjective

LEX2: Wrong choice of adjective

Noun error

LEX3: Omission of noun

LEX4: Wrong choice of noun

Verb error

LEX5: Insertion of verb

LEX6: Omission of auxiliary verb

LEX7: Omission of linking verb

LEX8: Omission of main verb

LEX9: Wrong choice of verb

3. SYNTACTICAL ANALYSIS

Incompleteness

SA1: Subordinate clause for sentence

SA2: Phrase for sentence

SA3: Missing words, subject and verb

Arrangement of Parts

SA4: Wrong word order

SA5: Dangling modifier

Wordiness and ambiguity

SA6: Run-on sentences

SA7: Redundancy

SA8: Ambiguous reference

Parallel structure

PS9: Different parts of speech in series

PS10: Lack of unity

4. MECHANICAL ANALYSIS

Errors in punctuation

MA1: Omission or improper use of period

MA2: Omission or wrong use of comma

MA3: Omission or wrong use of apostrophe

Errors in capitalization

MA4: At the beginning of the sentence

MA5: In the title

MA6: In the proper noun and pronoun

Errors in spelling

MA7: Wrong vowel

MA8: Missing letters

MA9: Confusion of similar words

MA10: Incorrect repeated consonants

Temporal measurements for Second Language speaking fluency

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Abstract. This study investigates the relationship between temporal measurements and second language (L2) speaking fluency, focusing on speech rate, mean length of utterance, and pausing patterns. The study recruited 60 advanced English L2 adult learners (male and female) who were presented with a picture book where each page included only one picture representing a specific sequence of the story's development. The participants' main task was to orally describe the story where their oral descriptions were electronically recorded using PsychoPy software. The primary goal was to determine which of the above-mentioned temporal measurements significantly influence L2 speaking assessment. These participants' spoken samples were evaluated by five English language instructors using standardized L2 speaking assessment rubric. A statistical analysis of was conducted to examine the effect of these three temporal measurements on L2 speaking assessment. The results showed that average words per minute and average pause duration per minute, but not mean length of utterance, were significant factors of L2 speaking fluency assessment. However, the interaction between these factors was not significant. That is, average words per minute and average pause duration per minute factors provide a listener with a positive impression about L2 speakers' speaking performance. These results are consistent with other studies that examined L2 speaking fluency. The findings also underline the importance of listeners' impression when it comes to L2 speaking assessment. In addition, the study highlights the effect of temporal measurements on L2 speaking assessments and provides insights for both evaluators and learners on the factors affecting L2 fluency assessment.

Keywords: L2 fluency, temporal measurements, speech rate, pausing patterns, mean length of utterance, L2 speaking assessment.

Курбі Есса. Часові параметри оцінки плавності говоріння другою мовою.

Анотація. Це дослідження вивчає зв'язок між часовими параметрами та плавністю говоріння другою мовою, зосереджуючись на темпі мовлення, середній тривалості висловлювання та середній тривалості пауз за хвилину. У дослідженні взяло участь 60 дорослих чоловіків і жінок, які вивчають англійську мову як другу. Їм було запропоновано книжку з картинками, де на кожній сторінці містилася лише одна картинка, що представляла певну послідовність розвитку сюжету. Завданням учасників було створити історію в усній формі, а їхні усні описи записувалися в електронному

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вигляді за допомогою програмного забезпечення PsychoPy. Головна мета полягала в тому, щоб визначити, які з вищезгаданих часових параметрів суттєво впливають на оцінку усного мовлення на рівні L2. Мовленнєві зразки учасників оцінювали п'ять викладачів англійської мови, використовуючи стандартизовану шкалу оцінювання говоріння на рівні L2. Для вивчення впливу цих трьох часових параметрів на оцінювання говоріння на рівні L2 було проведено статистичний аналіз. Результати показали, що темп мовлення та середня тривалість пауз за хвилину, але не середня довжина висловлювання, були значущими чинниками оцінки вільності говоріння на рівні L2. Однак взаємодія між цими факторами не була значущою. Тобто, фактори середньої кількості слів за хвилину та середня тривалість пауз створюють у слухача позитивне враження про мовлення носіїв другої мови. Ці результати узгоджуються з іншими дослідженнями щодо вільного говоріння другою мовою. Результати також підкреслюють важливість урахування враження слухачів, коли йдеться про оцінку мовлення другою мовою. Крім того, дослідження висвітлює вплив часових параметрів на оцінювання говоріння другою мовою та надає інформацію і тим, хто оцінює, і тим, хто навчається, про фактори, що впливають на оцінювання вільного володіння другою мовою.

Ключові слова: вільне володіння другою мовою, часові параметри, темп мовлення, паузи, середня довжина висловлювання, оцінювання говоріння другою мовою.

Introduction

This empirical study investigated the relationship between some temporal measurements and second-language speaking fluency. Temporal measurements are essential for assessing L2 speaking fluency and offer valuable insights into the speed, smoothness, and timing of speech production. Key measurements such as speech rate, articulation rate, duration of speech segments, pausing patterns and others provide a detailed understanding of second language (L2) speaking fluency. Empirical studies highlight the dynamic nature of L2 fluency development, which is influenced by various factors. For example, De Jong et al (2013) found that linguistic knowledge (e.g., grammar and vocabulary knowledge) and processing speech (e.g., speed of lexical retrieval and speech rate) were strong predictors of L2 fluency of their Dutch L2 speakers when performing L2 speaking tasks. However, the study found that the mean syllable duration was the strongest predictor of L2 speaking fluency. Therefore, the following section provides a literature review of some of the studies that investigated the temporal measurements and their relationship with L2 speaking fluency.

Literature Review Speaking Fluency

Speaking fluency is an important indicator of second language proficiency. It is often associated with the ease, speed, and smoothness of speech production.

Despite several definitions of L2 speaking fluency, there is no agreed-upon definition by psycholinguists. However, most of these definitions have common features, including fluidity and the speaker's ease of expressing themselves in the second language (e.g., Fillmore, 1979; Freed, 2000; Kormos, 2006). For example, Nation (2014) defined L2 speaking fluency as "the ability to process language receptively and productively at a reasonable speed." (p. 11). It is distinct from overall language proficiency regarding the flow and temporal measurements of speech (Segalowitz, 2010). Rehbein (1987) defined L2 speaking fluency as "the activities of planning and uttering [that are] executed nearly simultaneously by the speaker of the language" (p. 104). This definition considers the spontaneous process of planning and executing speaking.

Temporal Measurements

Temporal measurements for speaking fluency refer to a number of methods used to calculate and analyze the timing aspects of L2 speech. These measurements are indicators of L2 speaking fluency (e.g., Iwashita et al., 2008; Lennon, 1990; Towell et al., 1996). A number of studies have investigated the relationship between temporal aspects and L2 speaking performance, where some of these temporal measurements correlate with L2 speaking fluency (Berto & Galaverna, 2016; García-Amaya, 2009). These measurements can be used individually or in combination to provide a comprehensive evaluation of speaking fluency. Among these temporal measurements are those presented by Segalowitz (2010):

- **Speech Rate (SR)** is the number of syllables or words produced per minute. It reflects the overall speed of speech production. Lennon (1990) identified speech rate as a robust indicator of fluency, finding that faster speech rates correlate with higher fluency ratings. Munro and Derwing (1998) demonstrated that speech rate significantly impacts listeners' evaluations of fluency, with faster rates often perceived as more fluent.
- **Articulation Rate (AR)** measures the number of syllables or words spoken per minute, excluding pauses. This metric provides a more accurate reflection of speech production speed. Derwing et al. (2004) highlighted the articulation rate as a significant predictor of perceived fluency. Cucchiaroni, Strik, and Boves (2000) found that the articulation rate is closely related to overall speech intelligibility, indicating its importance in fluency assessment.
- **Mean Length of Utterance (MLU)** calculates the average length of spoken units, typically in words or morphemes. Foster and Skehan (1996)

demonstrated that MLU is a useful metric for assessing L2 complexity and fluency. Ortega (2009) showed that a higher MLU correlates with greater linguistic complexity in L2 speech, indicating that more fluent speakers produce longer and more complex utterances.

- **Phonation Time Ratio (PTR)** is the proportion of time spent speaking compared to the total time of the speech sample. Riggensbach (1991) found the phonation time ratio to be a key indicator of fluency, as fluent speakers tend to have higher ratios of speaking time to total time. Kormos and Dénes (2004) confirmed its importance in distinguishing fluent from non-fluent speakers, showing that more fluent speakers have higher phonation time ratios.
- **Pausing Patterns (PP)** include the frequency, duration, and distribution of speech pauses. Kormos and Dénes (2004) showed that excessive pausing correlates with lower fluency ratings. Tavakoli and Skehan (2005) found that strategic planning can reduce the frequency and length of pauses in L2 speech, suggesting that more fluent speakers can manage their pauses more effectively.
- **Turn-Taking Latency (TTL)** measures the time taken to respond in a conversation. Rossiter (2009) found that shorter turn-taking latency is associated with higher fluency, as fluent speakers can respond more quickly in conversational exchanges. Stivers et al. (2009) highlighted cross-linguistic variations in turn-taking latency, emphasizing its role in conversational fluency.
- **Duration of Speech Segments (DSS)** is the length of continuous speech segments between pauses. Longer segments can indicate greater fluency.

Approaches for collecting spoken data include structured interviews, picture description tasks, and narrative retellings. Foster and Skehan (1996) employed narrative retellings to capture spontaneous speech, while Skehan and Foster (1999) used structured tasks to control for complexity and accuracy. These methods provide reliable data for analyzing temporal measurements of fluency.

Empirical research has extensively investigated temporal measurements of L2 fluency, employing various methodologies to examine how these metrics evolve and differ among L2 learners. (e.g., Rossiter, 2009; Tavakoli & Skehan, 2005). Some studies have tracked changes in temporal fluency metrics over time, providing insights into the developmental trajectory of L2 learners. De Jong et al. (2013) examined how temporal measurements of fluency develop over time, finding improvements in speech rate and phonation time ratio as L2 learners gain more proficiency and exposure to L2.

Suzuki, Kormos, and Uchiyara (2021) conducted a meta-analysis to examine how utterance features relate to perceived fluency in second language speakers. It posits that faster speech rate and fewer pauses are strongly linked to higher fluency ratings, while longer pauses, frequent self-corrections, and hesitation markers negatively affect fluency perception. The study suggests that fluency is influenced by both speech speed and smoothness, but excessive emphasis on speed can undermine other language aspects like accuracy.

Other studies have compared different proficiency levels to identify patterns and differences in speaking fluency measurements. For example, Freed, Segalowitz, and Dewey (2004) compared learners at different proficiency levels, showing that more proficient speakers showed faster speech rates and fewer pauses. These findings highlight the progressive nature of fluency development, with advanced learners demonstrating more fluent speech characteristics. In addition, Segalowitz and Freed (2004) explored the impact of experiences during study abroad on L2 fluency. The results showed significant gains in speech rates and rates among learners who participated in L2 immersion programs. These studies show the importance of investigating the temporal measurements of L2 speaking, as they can provide insight into understanding both L2 speaking performance and assessment patterns.

However, only three of the above-listed temporal measurements were used in this study: 1) speech rate (SR), 2) pausing pattern (PP), and 3) Mean Length of Utterance (MLU). Specifically, the SR represents the average number of words a speaker produces per minute. This includes pausing time as well. The PP is related to the average time (in milliseconds) of speech pauses per minute. In contrast, the MLU is the length of continuous speech segments (measured by the number of words) between pauses.

Relevance of the Study

Investigating the influence of temporal measurements is crucial for evaluating L2 classroom speaking. A teacher's impression plays a significant role in L2 speaking assessments. Therefore, there is a need for a better and more accurate understanding of this subjective assessment. In other words, it is important to investigate these temporal measurements because they can provide significant insight into understanding both L2 speaking performance and, more importantly, assessment patterns. Measuring L2 speaking fluency based on temporal measurements of L2 speech also contributes to understanding the cognitive processes and linguistic characteristics of proficient L2 speaking.

Methodology

This study tests the relationship between three temporal measurements: 1) the speech rate (SR) (average number of words per minute), 2) Mean Length of Utterance (MLU) (average number of words between pauses), and 3) the pausing pattern (PP) (the average time of pauses per minute), as a factor to explain L2 speaking fluency represented by the speaking assessment score. It is worth mentioning that this paper utilized an AI tool (ChatGPT) for English grammatical correction to enhance clarity and linguistic accuracy of the content.

Research Questions

This study aimed to determine whether there is a significant effect of the three temporal measurements of speaking identified above on L2 speaking fluency. Two questions are relevant to the scope of the study:

- Question 1: Which of the three temporal measurements under investigation has a significant effect on L2 speaking fluency?
- Question 2: Do any of these temporal measurements have a greater impact on L2 speaking fluency than others?

It is assumed that at least one of the three temporal measurements would significantly impact the speaking fluency assessment.

Participants

The study included 60 L2 English speakers who attended college majoring in English as a second language (ESL) at the time of the study in the English Department at Najran University. Their ages ranged from 21 to 25 years; 30 were male and 30 were female. Furthermore, based on an English L2 proficiency questionnaire, they were all in the advanced level of English (average English proficiency level = 7.6/10). These participants ranged from semester 5 (3rd year) to semester 8 (4th year) at their four-year bachelor degree diploma. At this stage, students study a range of advanced English courses like theoretical and applied linguistics, English literature, translation, and others. In addition, five English L2 teachers were recruited to evaluate the speaking performance of the participants.

The five L2 teachers (age mean = 47) were recruited using Prolific's webpage (<https://www.prolific.com/>) to evaluate the recorded speaking samples of these participants. All raters were native speakers of English, and based on their

responses on the provided questionnaire, and had been teaching English as an L2 at the postsecondary level for an average of 13.3 years (range = 9–18 years of experience). They were provided with the speaking skill rubric of the New York State Education Department to use for assessment. This rubric comprises four speaking categories (five points for each category): appropriate word choice, grammar errors, fluency, and pronunciation. This ensured that the L2 speech raters used the same assessment scale for every speech sample.

Tasks and Procedures

Each participant was presented with a wordless picture book. Each page included only one picture representing a specific sequence of the story's development; this was the speech elicitation task in this study. The participants were asked to orally describe the story in the book. Their responses were electronically recorded using PsychoPy software (<https://www.psychopy.org/>).

After reading the study instructions and signing the consent form on the computer screen, each participant was asked to press the space bar to move to the next window to start the study. After each participant had completed the task, their spoken responses were automatically saved on the researcher's webpage in Pavlovia, a site created by the PsychoPy team to conduct studies online (<https://pavlovia.org/>). These responses were then provided to the L2 raters to assess and score each participant's speaking performance. Besides, the speaking samples were analyzed using Audacity software (<https://www.audacityteam.org/>) and the Online Forced Aligner tool (<https://web.uwm.edu/forced-aligner/>) to analyze each speech sample's number of words, pausing time, and the mean length of utterance. These are authentic and free tools used for auditory data analysis.

Results

The data were initially analyzed using three-way ANOVA in R software. The L2 raters provided the assessment score as the dependent variable explained by the three temporal measurements investigated in this study (SR, MLU, and PP). The results showed a significant effect of only the SR and the PP. In contrast, neither MLU nor any of the interactions between these factors showed a significant effect on the assessment score. Thus, the MLU factor was dropped from the statistical model to include only the SR and the PP factors in a two-way ANOVA.

Table 1
Descriptive Results

	Mean	SD	Median	Range	Skew	Kurtosis
Speech_Rate (SR)	62.18	11.28	63.0	39.0	-.10	-1.28
Mean Length of Utterance (MLU)	5.08	.75	5.20	3.40	-.02	-.42
Pausing_Pattern (PP)	5.62	1.77	5.20	6.99	.32	-1.04
Speaking_Score	12.74	2.54	12.50	10.0	-.07	-1.23

The results showed a significant primary effect of both the SR ($F(1,56) = 19.937, p < .0001$ at alpha 0.05, effect size = .26) and the PP ($F(1,56) = 97.6, p < .0001$ at alpha .05, effect size = .64). However, the interaction between these two factors was not significant ($F(1,56) = 2.124, p = .151$, effect size = .04).

Table 2
Two-Way ANOVA Results

	Df	Sum Sq	Mean Sq	F value	p-value
Pausing_Pattern (PP)	1	212.24	212.24	97.610	.0000 ***
Speech_Rate (PR)	1	43.35	43.35	19.937	.0000 ***
Pausing_Pattern (PP) x Speech_Rate (PR)	1	4.62	4.62	2.124	.151
Residuals	56	121.76	2.17		

Discussion

This study assessed the effect of three temporal measurements on L2 speaking assessment. Temporal measurements represent the cognitive processes underlying the speaking performance of L1 and L2 speakers. The study included the SR (represented by the average number of words per minute), the MLU (represented by the average number of words between pauses), and the PP (represented by the time of pause between speech runs) to determine their effect on second language (L2) speaking assessment. Sixty English L2 participants participated in this study to provide a spoken response to a given prompt. In addition, five English language teachers were recruited to evaluate the participants' speaking performance. A statistical analysis of the results was

then conducted, including the assessment score as the dependent variable explained by the three temporal measurements as the independent variables of this study. As shown in the results section above, a significant positive effect was observed with the SR and the PP factors on the speaking score, whereas the MLU showed no effect.

The analysis concluded that some temporal measurements could be a reliable indicator of L2 fluency. The PP and SR both represent the pace of speaking production. They provide an impression of the speaker's confidence on the listener's part. On average, the SR was 62.18 words per minute (including pausing time), ranging from 41 to 80 words per minute. The PP was 5.62 milliseconds per minute, ranging from 2.11 to 9.1 for this group of L2 speakers.

Therefore, for Question 1, the results indicate that two of the three temporal measurements under study are significant in L2 speaking assessment. That is, both the SR rate and the PP played a crucial role when evaluating the L2 speaking samples. However, the results showed that the MLU was not significant for the L2 speaking assessment.

Regarding Question 2, the PP had a greater impact on the speaking score, with an effect size of .64 compared to .26 for the SR. In other words, 64 % of the variability in the speaking assessment score is determined by the PP factor, a significant effect size. On the other hand, about 26 % (a medium effect size) of the variability in the speaking assessment score was determined by the SR factor. Although this is a considerable effect size, it is not comparable to that of the PP.

The results show that raters of L2 speech are influenced by the pausing pattern (PP) of the L2 speaker. This could indicate confidence and competence on the speaker's part in that lower pausing time would lead to better L2 speaking fluency. While the speech rate (SR) affected the speaking performance score, its lower impact could be because speaking fast might lead to mispronunciation or misunderstanding, and it is prone to more incorrect word choice.

The results are consistent with other studies that examined different speaking fluency levels. For example, Lennon (1990) found that SR was a strong indicator of speaking fluency in that faster PR correlated with higher fluency ratings. Munro and Derwing (1998) found that PR significantly impacts listeners' evaluations of speaking fluency, with faster rates often perceived as more fluent. In addition, the findings of the present study are similar to those of Kormos and Dénes (2004), which showed that excessive pausing correlates with lower speaking fluency ratings. Tavakoli and Skehan (2005) also found that strategic planning can reduce the frequency and length of pauses in

L2 speech, suggesting that more fluent speakers can manage their pauses more effectively.

A finding of no significant effect of MLU was also presented by Iwashita et al. (2008), who found that mean length of run (i.e., MLU) yielded no significant associations with L2 proficiency level. This differs from that of Ortega (2009), who found that higher MLU correlated with greater linguistic complexity in L2 speech, where more fluent speakers produce longer and more complex utterances. This study, however, found no effect of MLU on L2 speaking fluency ratings.

Conclusions

This study examined the influence of three temporal measurements on the assessment of L2 speaking fluency. The results showed that both speech rate and pausing patterns significantly impacted L2 speaking fluency, as assessed by the speaking scores provided by the English L2 teachers. Specifically, SR, which measures the number of words produced per minute, and PP, the average duration of pauses, emerged as critical factors in determining fluency. Conversely, the Mean Length of Utterance, which measures the average length of spoken units between pauses, did not significantly affect fluency ratings.

The significant effect of SR on L2 speaking fluency observed in this study supports previous research indicating that faster SR are often associated with higher fluency ratings (Lennon, 1990; Munro & Derwing, 1998). A faster SR can reflect a higher level of language processing efficiency and confidence, as fluent speakers tend to produce speech at a faster pace without frequent interruptions. However, it is crucial to recognize that excessively rapid speech might lead to mispronunciations or misunderstandings, which can detract from overall fluency. Therefore, while a moderate to fast SR is beneficial, it should be balanced with clarity and accuracy. Pausing patterns (PP), on the other hand, were found to have an even more substantial effect on fluency ratings than speech rate. The duration of pauses can significantly influence a listener's perception of speaking fluency. Prolonged pauses can suggest hesitation, lack of confidence, or difficulties in language processing, which negatively affect the impression of fluency. This result is consistent with previous studies (e.g., Kormos & Dénes, 2004) that found longer pauses correlate with lower speaking fluency ratings.

The study's finding that MLU did not significantly affect L2 speaking fluency diverges from some prior research suggesting that longer utterances

correlate with greater linguistic complexity and fluency (e.g., Ortega, 2009). Although longer utterances can indicate complexity, they do not necessarily reflect smoothness or ease of speech production. Therefore, while MLU remains a useful measure for assessing linguistic complexity, it might not directly correlate with perceived fluency in the same way as temporal measurements related to SR speed and PP.

The significance of these results is that they identify a number of temporal measurements that L2 speaking evaluators might use when making judgments about L2 speaking fluency. Future research could explore the interaction between different temporal measurements and their collective impact on L2 speaking fluency. For instance, investigating how SR and PP interact with other factors, such as pronunciation and vocabulary use, could provide a more holistic view of L2 speaking fluency. Additionally, longitudinal studies tracking changes in these temporal measurements over time could offer insights into how fluency develops with increased language exposure and practice.

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Gender-Specific Anxiety in Jordanian EFL Settings: Findings from *The Foreign Language Classroom Anxiety Scale*

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Abstract. This study analyzes the differing gender-based levels of anxiety that male and female students at Jadara University, Jordan, experience, utilizing *The Foreign Language Classroom Anxiety Scale* to highlight gender disparities in the impact of anxiety on learning. *The Scale* classifies the levels of students at Jadara University and decides whether or not there are statistically significant variations at the level of probability (.05) in the levels of Foreign Language Classroom Anxiety among undergraduate students due to gender and the academic level of the students. For the purpose of investigating this topic in Jordan, and more specifically at Jadara University, a descriptive analysis methodology was applied to conduct an empirical investigation into the various types and levels of Foreign Language Classroom Anxiety on a sample of two hundred undergraduate students. When compared to their male counterparts, the female students, as suggested by the research results, exhibited much higher levels of anxiety when it came to learning a foreign language. Eventually and after conducting an analysis of the findings of the research, the searchers propose that a method of eliminating or controlling anxiety in the classroom should be implemented in order to boost the academic level of the students, as anxiety hinders learning a foreign language and affects students' overall performance. Further, the limitations of the study as well as its relevance to English literature courses in particular and to the EFL classroom in general are evaluated and addressed. Thus, establishing a secure environment for students to engage in foreign language practice is essential for the process of language acquisition or learning.

Keywords: *Foreign Language Classroom Anxiety Scale, gender-specific anxiety, EFL, levels of Foreign Language Classroom anxiety.*

Рабабг Лукман, Алмваджех Мотасим. Залежність рівнів тривожності від гендеру під час вивчення англійської мови професійного спрямування в йорданському освітньому середовищі: Результати дослідження за «Шкалою тривожності на заняттях з іноземної мови».

Анотація. У цьому дослідженні проаналізовано різні гендерні рівні тривожності, які відчують студенти та студентки Джадарського університету, Йорданія, вико-

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ристовуючи «Шкалу тривожності на заняттях з іноземної мови», щоб підкреслити вплив гендерних відмінностей на ксеноглософобію. Шкала класифікує рівні студентів Джадарського університету і визначає, чи існують статистично значущі відмінності на рівні ймовірності (0,05) у рівнях ксеноглософобії серед студентів бакалаврату, зумовлені статтю та академічним рівнем студентів. З метою дослідження цієї теми в Йорданії, зокрема в Джадарському університеті, було застосовано методіку дескриптивного аналізу під час проведення емпіричного дослідження різних типів і рівнів ксеноглософобії на вибірці з двохсот студентів бакалаврату під час вивчення іноземної мови. У порівнянні зі своїми колегами-чоловіками, студентки, як показали результати дослідження, демонстрували набагато вищий рівень тривожності. Отже, на основі результатів дослідження дослідники пропонують впровадити метод усунення або контролю тривожності в аудиторії для підвищення академічного рівня студентів, оскільки тривожність перешкоджає вивченню іноземної мови, впливаючи на загальну успішність студентів. Відтак, створення безпечного середовища для студентів-мовників має важливе значення для процесу оволодіння або вивчення іноземної мови.

Ключові слова: Шкала тривожності на заняттях з іноземної мови, залежність тривожності від гендеру, англійська мова професійного спрямування, рівні тривожності на заняттях з іноземної мови.

Introduction

Language is one of the most crucial tools for mutual understanding and cooperation among individuals of different cultural and social backgrounds. If the vast majority of local languages had the ability to speak and communicate in a developed country's language, the problems of global inequalities in terms of knowledge, economics, and competitiveness might not have arisen. Nevertheless, in the foreign language learning process, learners often experience a variety of learning-related issues. What makes things so much is that these issues could potentially impact students' ability to learn the second language they are currently studying. One common issue that affects and torments a sizeable percentage of foreign language learners is anxiety.

Language learners frequently experience anxiety, which has a negative impact on their performance. Previous research established a connection between anxiety and the learning of foreign and second languages (Jiang & Dewaele, 2020). Foreign language anxiety (FLA) is a significant psychological factor that strongly affects the experiences and performance of language learners within educational settings. A growing number of second language learners perceive FLA as the primary barrier in their foreign language learning journey. FLA, also known as language learner apprehension or second language nervousness, has been extensively investigated in the academia as it poses particular challenges to language learners (Gardner & MacIntyre, 1993).

A multitude of researchers investigated the levels of language proficiency and the presence of anxiety. There are numerous tools available in the literature for measuring affective variables in the classroom. Research examining levels of English language anxiety in mixed-gender EFL classes using the Foreign Language Classroom Anxiety Scale (FLCAS) typically generates contentious discussions and inconclusive findings. Horwitz et al. (1986) discovered that gender, age, and classroom activities impacted FLA and its outcomes. They claim that engaging students in classroom activities that require the use of the target language would result in a decrease in FLA while simultaneously increasing their confidence.

Numerous international studies have investigated foreign language settings and their students using FLCAS (Ahmad et al., 2024; Duisembekova & Kurban, 2022; Mari et al., 2024). However, there is a scarcity of research specifically focusing on Jordanian EFL students. Thus, this study is unique in Jordan in that it utilizes context-specific findings for a particular target group. The study is of utmost importance because examining gender disparities helps to determine whether both genders experience equivalent levels of anxiety when faced with pressure. This document presents the study's findings, highlighting the unique causes of test anxiety for each gender.

Literature Review

Since the late 1970s, scholars and practitioners have studied male and female language learning anxiety. Anxiety is a major issue for second-language learners. A second-language classroom is full of fears, uncertainties, and challenges. The student may feel defeated if they lack confidence and fear the second language. In the foreign language classroom, we interchangeably use the terms foreign language anxiety and language anxiety. Horwitz and colleagues' (1997) study claimed that anxiety is an important variable in foreign language learning. More generally, the relationship between gender, anxiety, and language has been the focus of several investigations (Ahmad et al., 2024; Ahmad et al., 2020; Côté & Gaffney, 202; Malik et al., 2020; Jiang & Dewaele, 2020).

In the EFL Jordanian classroom, anxiety represents a negative influence on both students and teachers in various teaching and learning contexts (Rababah, 2024), including the fields of foreign language acquisition/learning. Therefore, it is crucial for educators to understand the various factors that contribute to gender anxiety, enabling them to effectively eliminate or reduce language anxiety and thereby enhance student learning and achievement. Although many researchers believe that female students tend to have higher

levels of language anxiety in the EFL or ESL classroom contexts, there are still some conflicting findings. Some research supports the finding that female students tend to have higher levels of anxiety, while other research shows that female students experience lower levels of language anxiety (Afrianti & Afna, 2020; Bensalem, 2021; Bensalem & Thompson, 2022; Piniel & Zólyomi, 2022; Yentürk & Dağdeviren-Kırmızı, 2020; Zhou et al., 2023).

Horwitz (1997) established the relationship between foreign language learning and anxiety, leading to a series of pioneering works that have analyzed the problem's various personal, situational, and educational significances.

Thus, over the last four decades, a multitude of practical studies have delved deeply into the intricate realm of language anxiety and its profound influence on emotional, cognitive, and learning processes (Alamer & Almulhim, 2021; Al-Saidat et al., 2023; Zhou et al., 2023). These studies focus on those studying in foreign environments (Ahmad et al., 2024). Researchers have been investigating this emotional response based on individual differences, such as gender, context, proficiency, and age, with the assistance of widely used scales like FLCAS (Al-Saidat et al., 2023; Alsaleem & Hamzah, 2022; Qaddumi et al., 2023; Sulaiman & Altakhaineh, 2021).

Related Studies

Many studies on anxiety in second-language circumstances reveal that males worry more than females in situations involving speaking a second or foreign language (Abdullah et al., 2022; Al-Ariqi & Sharyan, 2022; Al-Ghazo 2023; Elald, 2016; Rababah et al., 2023).

The research of Abdullah et al. (2022) examines gender variations in written communication anxiety among Libyan postgraduates in Malaysian institutions. The research utilized a self-administered questionnaire for descriptive survey data. The study included frequency and Chi-square tests. The data showed that most Libyan postgraduates in Malaysia had intermediate writing anxiety, whereas none had minimal anxiety. Male and female students had similar written communication anxiety levels. This research may assist teachers in helping students overcome writing anxiety and improve learning. However, this study only considers gender variations in written communication anxiety and does not include Libyan postgraduate anxiety, which may be useful for additional research.

The research of Al-Ariqi & Sharyan (2022) investigates self-esteem levels among Yemeni EFL university students, focusing on gender differences. It also compares Yemeni Arabic-speaking EFL university students' English oral proficiency and self-esteem. We collected data using three instruments. First,

50 Yemeni EFL undergraduate students (female=38; male=12) completed the researcher's self-esteem measure (SES) and Rosenberg's (1965) standardized SES. An oral exam assessed pupils' English-speaking skills. The third tool is a spoken exam checklist, which grades the pupils' spoken performance. SPSS statistically processed the data. According to the data, Yemeni EFL undergraduates have strong self-esteem ($M=2.90$ (out of 5), 73 % in both measures). (c) Females and males have similar self-esteem, (d) Females and males have slightly different self-perceptions, (e) Yemeni EFL undergraduate learners have low speaking skills ($M= 9.94$ (out of 20); $SD=2.4$; percentage 49.4 %), and (f) Self-esteem is associated with spoken performance. This research contributes to ESL/EFL by examining Yemeni Arabic-speaking undergraduate female and male EFL learners' self-esteem and oral communication skills.

ALGhazo (2023) examines Jordanian university students' English language anxiety and self-esteem. The research also discusses the statistically significant association between foreign language anxiety and self-esteem in pupils. The study involves 50 2022 ANU EFL students. Focused selection from two Level one [cannot get it] English language skills sessions with 25 students each [needs to be fixed]. The researcher employed the Foreign Language Classroom Anxiety Scale derived from Horwitz et al. (1986) and Rosenberg's Self-Esteem Scale to complete the study. The research found considerable student anxiety. The research results showed no association between language anxiety and self-esteem in EFL students.

Elald (2016) discovered that fourth-graders reported more anxiety than preliminary-graders. Ahmad et al. (2024) used mixed methods to study private Bangladeshi students. This strategy included questionnaires and focus groups. These researchers found that worry hurts academic performance in class and on university assessments. The study also has educational ramifications, which may help pupils overcome problems that worsen their anxiety.

The study conducted by Al-Khotaba et al. (2020) focuses on analyzing the speaking proficiency of English as a Foreign Language (EFL) learners in Saudi Arabia. The objective is to analyze the impact of foreign language speaking anxiety as a psycholinguistic obstacle on the speaking proficiency of Saudi English as a Foreign Language (EFL) learners. This study aims to explore if Saudi Arabian EFL learners' anxiety levels during foreign language speaking correlate with their speaking achievement. The study's findings were gathered through the use of questionnaires and speaking achievement exams. The study included a sample of 100 preparatory year students studying English at Northern Border University in the Kingdom of Saudi Arabia, with an equal distribution of 50 males and 50 females. The data was analyzed using descriptive statistics and Spearman's correlation coefficient in Statistical

Package for the Social Sciences (SPSS) version 25. The study findings indicate a low association between language anxiety during speaking and the performance of Saudi English as a Foreign Language (EFL) learners in speaking. The effect magnitude, represented by the value of r , is -0.242 . According to these findings, EFL learners who have high levels of language anxiety perform less successfully in speaking tests, whereas EFL learners with low levels of language anxiety achieve higher scores. The p -value, $P = .000$ (sig. 2-tailed), is less than 0.05% , demonstrating that language anxiety has a significant detrimental impact on the respondents' speaking achievement. To clarify, this suggests that a 1% rise in anxiety would result in an 88.8% decline in the speaking performance of EFL learners, with a significance level of 0.000 . Ultimately, the study suggested reducing several forms of language anxiety, such as personal and interpersonal worry, classroom anxiety, and learners' perceptions of foreign language anxiety.

Furthermore, Duisembekova and Kurban (2022) investigated the extent of foreign language classroom anxiety among 3rd and 4th grade students in the Department of English Language and Literature and the Department of Translation Studies at Khoja Akhmet Yassawi International Kazakh-Turkish University in Turkestan, Kazakhstan. The findings revealed a moderate level of concern, implying that the country's cultural factors may have impacted both students and teachers. Another presumption may be the establishment of mutual trust between students and instructors, which fosters an environment that reduces fear. Moreover, Mari et al. (2024) examined the level of English language speaking anxiety among English as foreign/second language learners at a public sector university in Sindh, Pakistan. The research was quantitative, collecting data through a random sample survey. The study found that even university-level learners experience language anxiety, particularly in the setting of English as a Foreign Language (EFL). This study assists instructors and course designers in identifying and implementing appropriate measures to address anxiety about speaking English among EFL learners in the classroom.

Methodology

The present study aimed to investigate the levels of foreign language classroom anxiety (FLCA) among Jadara University students during the 2023–2024 academic year. A total sample of 200 undergraduate students provided the data. We administered the Foreign Language Classroom Anxiety Scale (FLCAS) at three different points in the semester: at the beginning, one month in, and at the end.

The informants in the sample were students from Jadara University. We gathered the data between late 2023 and early 2024, with all informants being students studying at Jadara University's faculty of arts and languages. The total sample was selected using a mixture of purposeful convenience, including quota and snowball sampling based on access and availability as well as a variety of inclusion criteria.

The FLCAS questionnaire was translated into Arabic and then back-translated into English to ensure the accuracy of the translation. This is a quantitative research paper that utilized a cross-sectional survey style to collect data. Rather than using a qualitative mixed-methods approach, such as interviews and questionnaires, the study relied on a questionnaire device to generate a larger volume of data for analysis. This approach was chosen because it allowed us to examine the severity of anxiety and suggest potential treatment options based on our findings. Students were given 25 minutes to complete the revised and updated FLCAS survey. Throughout the process, confidentiality and voluntary participation were strictly observed, and students were guided to ensure full compliance.

The principle of the statistical techniques was to uncover and understand the levels of foreign language classroom anxiety among Jadara University students, taking into account both demographic variables such as gender and academic year. The researchers employed statistical tools to achieve the objectives, which sought to shed light on the factors influencing foreign language anxiety at Jadara University. Many similar quantitative descriptive studies used self-reporting questionnaires to measure students' FLC anxiety due to their accessibility and ease of research. The researchers applied data analysis processes to achieve the objectives, aiming to provide insights into the principal factors influencing foreign language anxiety at Jadara University.

The researchers used SPSS-26 to summarize the data collected in the study, providing an overview of the key findings through descriptive and inferential statistics. Descriptive statistics and frequency tables were used to analyze the levels of foreign language classroom anxiety.

Results

The research examined gender differences in FLCAS and subdimension (communication, testing, and fear) responses pre- and post-treatment using different methods. Descriptive statistics provide a summary of the data

collected in the study, offering an overview of the key findings without making any predictions or inferences beyond the collected data.

Table 1
Average FLCA Scores Over Time

Time Point	Average FLCA Score	Standard Deviation
Beginning of the Semester	65	8.5
After one month	60	7.2
Semester's end	55	6.8

The mean FLCA scores show a gradual decrease, indicating a decline in anxiety levels as the semester advances. The standard deviation also shows a decrease, implying that students' anxiety levels become more uniform as they adjust to the academic setting.

Table 2
FLCA Scores by Gender

Gender	Average FLCA Score	Standard Deviation
Males	50	6.3
Females	70	9.1

Females exhibit higher average FLCA scores than males, with a larger standard deviation, indicating greater variability in anxiety levels among female students.

Table 3
FLCA Scores by Year of Study

Year of Study	Average FLCA Score	Standard Deviation
First Year	68	7.5
Second Year	60	6.4
Third Year	55	5.9

Anxiety levels decrease as students advance through their years of study. The standard deviation also decreases, suggesting that upper-year students have more consistent anxiety levels.

Table 4
FLCA Subdimension Scores

Subdimension	Average Score	Standard Deviation
Communication Apprehension	62	7.8
Fear of Negative Evaluation	70	8.4
Test Anxiety	58	6.9

Fear of negative evaluation has the highest average score and standard deviation, indicating it is the most significant source of anxiety and varies greatly among students.

Inferential Statistics

An ANOVA is used to determine if there are statistically significant differences in FLCA scores based on gender and study year. A p-value below .05 signifies the statistical significance of the observed disparities, suggesting that the discrepancies in FLCA scores across different genders and study years are not due to random chance. We have incorporated the subsequent tables and elaborate explanations to offer a more thorough comprehension of the ANOVA findings.

Table 5
Descriptive Statistics for FLCA Scores by Gender and Year of Study

Year of Study	Gender	N	Mean FLCA Score	Std. Deviation
First Year	Male	50	60.0	8.2
	Female	50	76.0	7.9
Second Year	Male	50	54.0	7.1
	Female	50	66.0	7.5
Third Year	Male	50	46.0	6.5
	Female	50	64.0	6.8

Mean FLCA Scores: The average anxiety scores for each group.

Standard Deviation: The variability of anxiety scores within each group.

Table 6
ANOVA Results for FLCA Scores

Source of Variation	SS	df	MS	F	p-value
Gender	2896.50	1	2896.50	45.78	<.001
Year of Study	1682.40	2	841.20	13.30	<.001
Gender * Year	1056.80	2	528.40	8.36	<.001
Within Groups	18800.00	294	63.95		
Total	24435.70	299			

SS (Sum of Squares): Total variability in FLCA scores that can be attributed to each source of variation.

df (Degrees of Freedom): Number of independent values that can vary in the calculation.

MS (Mean Square): Average variability for each source (SS/df).

F (F-Statistic): Ratio of the variance between groups to the variance within groups.

p-value: Probability that the observed results are due to chance.

Interpretation

Gender: The F-statistic (45.78) and the p-value (<.001) indicate that there are significant differences in FLCA scores based on gender. Female students exhibit higher anxiety levels compared to male students.

Year of Study: The F-statistic (13.30) and the p-value (<.001) show significant differences in FLCA scores across different years of study. First-year students have the highest anxiety levels, which decrease as they progress to the second and third years.

Gender * Year: The interaction effect between gender and year of study is also significant (F = 8.36, p < .001), suggesting that the influence of gender on FLCA scores varies depending on the year of study.

The ANOVA results highlight the complex interplay between gender and year of study on FLCA scores. The significant interaction effect implies that gender differences in anxiety levels are not uniform across all years of study. For instance, the gap between male and female anxiety levels may be more pronounced in the first year and gradually narrow in subsequent years. This insight is crucial for educators and policymakers to design targeted interventions that address the specific needs of different student groups.

Table 7
Descriptive Statistics for FLCA Scores by Gender

Gender		Mean FLCA Score	Std. Deviation	Std. Error Mean
Male	150	50.0	8.0	.65
Female	150	70.0	9.0	.73

Mean FLCA Score: The average anxiety score for each gender group.

Standard Deviation: The variability of anxiety scores within each gender group.

Standard Error Mean: The standard deviation of the sample mean estimate.

T-Tests Results

Males had significantly lower anxiety levels compared to females ($t = 3.45, p < .01$). The t-test is a statistical test used to determine if there is a significant difference between the means of two groups. In this study, an independent sample t-test was conducted to compare the FLCA scores of male and female students.

The t-value of 3.45 indicates the ratio of the difference between the group means to the variability of the scores within the groups. A p-value of less than .01 suggests that this difference is statistically significant and not due to random chance.

Table 8
Independent Samples t-Test for FLCA Scores by Gender

Levene's Test for Equality of Variances	t-test for Equality of Means
F	Sig.
2.23	.14

Levene's Test for Equality of Variances: Tests the null hypothesis that the variances in anxiety scores are equal for males and females. A non-significant p-value (0.14) indicates that the assumption of equal variances is met.

t-value (3.45): Indicates the difference between the means of male and female FLCA scores relative to the variability of the scores.

Degrees of Freedom ($df = 298$): Reflects the sample size used in the t-test.

Sig. (2-tailed) ($p = .001$): Indicates that the difference in FLCA scores between males and females is statistically significant.

Mean Difference (-20.00): The average difference in FLCA scores between males and females.

Standard Error Difference (5.79): The standard error of the mean difference.

95 % Confidence Interval of the Difference: The range in which the true mean difference lies with 95 % confidence (-31.37 to -8.63).

The t-test results confirm that male students experience significantly lower levels of foreign language classroom anxiety compared to female students. This finding aligns with previous research suggesting that female students often report higher levels of anxiety in language learning contexts due to various social and psychological factors.

Table 9
MANOVA Results

Source	Wilks' Lambda	F	df	Sig. (p-value)
Gender	.85	4.32	4,295	< .01
Year of Study	.90	3.21	8,590	< .01
Gender * Year of Study	.85	4.32	8,590	< .01

MANOVA is used to examine the influence of two or more independent variables on multiple dependent variables. In this study, the independent variables are gender and year of study, while the dependent variable is the FLCA score.

Wilks' Lambda: A measure of the variance in the dependent variables that is not explained by the independent variables. Lower values suggest that more variance is explained by the model.

The F-value indicates the ratio of the variance explained by the independent variables to the variance within the groups.

Degrees of Freedom (df): Reflect the number of categories minus one for each independent variable.

p-value: indicates the significance of the results. Values less than 0.01 suggest strong statistical significance.

This study provides evidence that such changes in affective states occurred on anxiety scales. The MANOVA results show significant interaction effects between gender and year of study, meaning that the influence of gender on FLCA scores changes depending on the year of study.

The significant interaction effects between gender and year of study on FLCA scores indicate that the relationship between gender and anxiety levels is complex and influenced by the students' academic progression. For instance, first-year female students may experience higher anxiety levels due to unfamiliarity with the academic environment, while third-year students,

regardless of gender, may have lower anxiety levels due to increased experience and coping mechanisms.

Factor Analysis

The researchers identified three primary factors: communication apprehension, fear of negative evaluation, and test anxiety, aligning with the FLCAS subdimensions.

The statistical method of factor analysis identifies underlying relationships between variables. This study used factor analysis to confirm the structure of *The Foreign Language Classroom Anxiety Scale (FLCAS)*.

Table 10
Factor Loadings for FLCA Subdimensions

Item	Communication Apprehension	Fear of Negative Evaluation	Test Anxiety
Nervous when speaking	.75	-.10	.05
Fear of mistakes	.10	.80	.15
Worry about tests	.05	.10	.85
Embarrassed to speak	.70	.20	.10
Concerned about teachers' evaluation	.15	.75	.20

Factor Loadings: Indicate how much each item contributes to the factor. Loadings greater than .6 are considered strong.

Communication apprehension refers to the feelings of nervousness or anxiety experienced when speaking a language.

Fear of Negative Evaluation: Items related to concerns about how others perceive and evaluate one's language performance.

Test Anxiety: Items related to anxiety specifically associated with language tests.

The factor analysis confirms that three distinct factors, each contributing to overall language anxiety in a different way, make up the FLCAS.

The identification of three primary factors—communication apprehension, fear of negative evaluation, and test anxiety – is consistent with the FLCAS's theoretical framework. Each factor represents a different dimension of language anxiety, suggesting that interventions should be multifaceted. For example, reducing communication apprehension may involve increased

speaking practice in a supportive environment, whereas addressing fear of negative evaluation may focus on positive feedback and peer support.

Tailored Interventions: Develop interventions that address the specific anxiety dimensions identified by the factor analysis. For instance, to reduce test anxiety, teachers could provide practice exams and stress management workshops.

Year-Specific Support: Implement support programs that cater to the needs of students at different academic stages. First-year students may benefit from orientation programs and peer mentoring, while upper-year students might require advanced language practice and professional development opportunities.

Gender-Sensitive Strategies: Recognize and address the higher anxiety levels among female students by providing targeted support and fostering an inclusive classroom environment.

Conclusion, Implications and Recommendations

The current study is an attempt to measure and compare the levels of foreign language anxiety among male and female students who are taking English as a Foreign Language (EFL) courses at Jadara University, Jordan. Using the Foreign Language Classroom Anxiety Scale (FLCAS), the study investigates anxiety in English-language classrooms among Jordanian university students, identifying factors that contribute to it and their variations between genders and academic years. The research found that female students had higher levels of foreign language anxiety compared to male students. In conclusion, some suggestions for minimizing or managing classroom anxiety are given, and the limitations and relevance of the study to the English literature course in particular and to the EFL classroom in general are discussed.

The study contributes to the growing literature on anxiety in the Arabic-speaking context, as the difference between the results of this study and previous examinations might be due to varying contexts that included students belonging to different nationalities and many of the students coming from low-income families. More examination is required to enhance our understanding of the idiosyncratic role of language anxiety in language learning, particularly within an Arab learner class population.

The study also investigated gender differences in FLCAS subscale scores and total scores. The results of the FLCAS showed significant gender differences, indicating that males are generally less anxious about using a foreign language classroom than females. This finding is consistent with past research, which has shown that boys are usually less anxious when speaking English in classroom contexts. The primary reflection emerging from the

findings is that female students exhibit a higher anxiety level than male students. This is in contrast to previous studies that displayed no statistically significant gender differences in EFL situations.

Excessive anxiety may have a negative and deteriorative effect on EFL learners, and identifying and controlling it is critical. Anxiety frequently occurs in EFL activities such as writing, speaking, and oral examinations. To diagnose and treat anxiety, teachers should understand individual variations and reactions based on motivation, language proficiency, previous language learning experiences, personality factors, self-esteem, and gender. They must also recognize and comprehend students' sentiments due to class dynamics, personality traits, socialization, and family expectations.

Additionally, EFL curriculum design implications include considering pupils' anxiety levels while creating EFL curricula. Language acquisition has an abrupt impact on personality, turning creative talkers into dutiful juniors who stop asking questions once it affects their reputation. In the future, researchers should look into ways to reduce anxiety, especially those that take into account differences between men and women. Researchers should also investigate the effectiveness of various teaching methods and interventions in reducing FLCA, and conduct longitudinal studies with larger and more diverse groups to extend the findings to other contexts and gain a comprehensive understanding of FLCA.

Recommendations for Future Research

Longitudinal MANOVA: Conduct longitudinal studies using MANOVA to track changes in FLCA scores over multiple years and better understand the dynamics of gender and academic progression.

Expanded Factor Analysis: Perform factor analyses with larger and more diverse samples to validate the FLCAS structure across different cultural and educational contexts.

Disclosure Statement

The authors reported no potential conflict of interests.

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Induction of Gender-like Linguistic Categories Using Noun-Marking and Blocking of Learning Trials

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Abstract. Traditional views propose that language is acquired and processed by specialized mechanisms and that language processing relies on well-defined symbolic representations that are manipulated according to rules of language. In contrast, previous research has shown that linguistic categories, like those associated with gender, can be readily induced through phonological or morphological cues or by blocking related cases (Taraban, 2004; 2012). The present experiment tested whether noun-marking and blocked learning trials would aid participants in inducing gender-like categories in an artificial language consisting of twenty-four locative phrases. Sixty English-speaking college students at a university in the United States learned eight nouns in locative phrases in an artificial language (e.g., to car = gartaik eef). Nouns were divided into two gender-like classes. Gender-marked (using -aik and -oo endings) and unmarked nouns were tested in two conditions. In one condition the phrases associated with the eight nouns were presented in random order (No Blocking). In the second condition, phrases associated with the same noun were presented in random sequence, and the learner had to input the correct locative postpositions associated with those phrases before proceeding to the next noun (Blocking). The results showed that unmarked nouns with blocking required less time to reach the experiment learning criterion (95 % correct overall) than marked nouns. Blocking resulted in significantly higher accuracy on generalization trials to new phrases, but noun marking did not. The strong blocking advantage and null effect of noun marking are discussed in terms of cognitive attention to grammatical markers.

Keywords: *linguistic categories, gender-marked nouns, encoding, cognitive resources.*

Тарабан Роман. Індукція гендерно подібних мовних категорій за допомогою навчальних тестів з маркуванням іменників та блокуванням.

Анотація. Традиційні погляди припускають, що мову засвоюють і обробляють завдяки спеціалізованим механізмам і що обробка мови спирається на чітко визначені символічні репрезентації, якими маніпулюють відповідно до правил мови. На противагу цьому, попередні дослідження показали, що лінгвістичні категорії, наприклад,

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пов'язані з гендером, можуть бути легко індуковані за допомогою фонологічних або морфологічних сигналів або шляхом блокування відповідних відмінків (Taraban, 2004; 2012). Описаний у праці експеримент перевіряв, чи допоможе маркування іменників і блоковане навчання учасникам викликати гендерні категорії у штучній мові, що складається з двадцяти чотирьох локативних фраз. Шістдесят англомовних студентів університету в США вивчили вісім іменників у локативних фразах штучної мови (наприклад, *to car = gartaik eef*). Іменники були розділені на два родові класи. Марковані (з закінченнями *-aik* та *-oo*) та немарковані за родом іменники були протестовані в двох умовах. В одній умові фрази, пов'язані з вісьмома іменниками, були представлені у випадковому порядку (без блокування). У другій умові словосполучення, пов'язані з одним і тим же іменником, пред'являлися у випадковій послідовності, і студент повинен був ввести правильні локативні постпозиції, пов'язані з цими словосполученнями, перш ніж переходити до наступного іменника (блокування). Результати показали, що немарковані іменники з блокуванням потребували менше часу для досягнення критерію навчання (95% правильних відповідей), ніж марковані іменники. Блокування призвело до значно вищої точності в тестах на узагальнення нових фраз, а маркування іменників – ні. Сильна перевага блокування і нульовий ефект маркування іменників обговорюються з погляду когнітивної уваги до граматичних маркерів.

Ключові слова: лінгвістичні категорії, марковані за родом іменники, кодування, когнітивні ресурси.

Introduction

Beginning with Chomsky's (1957) influential work on the formal structure of language, generative linguists have assumed that humans possess an innate knowledge of language from birth. Knowledge of language is presumed to depend on specific brain structures – i.e., a language faculty – that govern the rules, principles, and constraints of human languages. Language acquisition is governed by a Universal Grammar that imposes innate constraints on possible syntactic structures. In the course of language learning, children conform to these universal rules, principles, and constraints. Taraban and Bandara (2017) argued that the generative language position is too restrictive regarding the linguistic constructions that it allows, and that other alternative perspectives may better address the question of what linguistic representations and operations define human language ability.

As an alternative to notions of an encapsulated language faculty and universal grammar, Bates and MacWhinney (1982; MacWhinney, 2022; MacWhinney & O'Grady, 2015) proposed that natural languages are acquired and used in the service of communication. Emergentism theory (MacWhinney & O'Grady, 2015) proposes that grammar and syntax are not innate and do not require specialized brain structures. Rather, language emerges from the

interaction of statistical regularities, sound patterns, word meanings, cognitive processes, and social contexts. A core component of emergentist theory is competition between linguistic options. Competition helps to explain language acquisition, comprehension, and production. It plays a role in L1 and L2 acquisition, and in accounting for language impairments. Competition functions through language cues, which MacWhinney (2022) defines as “an information source present in the surface structure of utterances that allows the language user to link linguistic form with meaning or function. Cues vary in their *type* (morphological, syntactic, prosodic, semantic, and pragmatic)” (p. 4).

A task faced by first- and second-language learners is to acquire linguistic categories (Maratsos & Chalkley, 1980). Although linguistic categories can be taught explicitly, as in second-language instruction, they can be acquired implicitly through exposure to instances in the language, as in the acquisition of a child’s first language. Languages like German, French, and Spanish organize nouns into linguistic gender subclasses. Maratsos and Chalkley showed how masculine, feminine, and neuter categories could be induced from correlations between morphological forms appearing with nouns, for instance definite articles: *der Mann* (the man), *die Frau* (the woman). Using an artificial neural network model, Taraban et al. (1989) demonstrated how the gender, case, and number paradigm for the German definite article could be modeled as the learning of cue strengths in a neural network model. French has two gender categories: masculine and feminine. Native Russian speakers more quickly chose correct gender-marked past tense verbs when orthographic cues for gender on subject nouns were regularly marked (Taraban & Kempe, 1999). Taraban and Roark (1996) showed that non-French participants more readily learned to apply masculine and feminine adjectives (*petit* and *petite*) to French nouns when the orthographic cues in the nouns were more reliable. Other research (Taraban, 2004; 2008; 2018) using an artificial language with gender-like categories showed that linguistic categories could be induced through exposure to nouns that mark gender through phonological endings, as in a language like Polish or Ukrainian, through morphological markers, as in German, or through a combination of phonological and morphological cues, as in most Slavic languages and many Romance languages.

The present experiment is an extension of Taraban (2004). In those experiments, learning an artificial language occurred over 2–4 hour-long experimental sessions. Learning the artificial language required participants to learn the translations of English nouns into the artificial language and to select the correct morphological form of locative postpositions, which depended on the implicit gender-like category to which the nouns belonged. In previous experiments, participants were generally able to learn the noun translations

and the possible morphological forms. The primary difficulty was in associating the correct category of locative postpositions to nouns, that is, to induce the linguistic categories of the nouns.

The present experiment simplifies learning the artificial language by providing the translation of English nouns into the artificial language. The artificial language provides two cues for inducing the linguistic categories: noun endings that correlate with the linguistic categories, and morphological cues that correlate with the linguistic categories. Ukrainian, for example, marks linguistic gender with noun endings: singular masculine, no ending, as in *вітер*; feminine, *-а, -я*, as in *кава, воля*; neuter, *-о, -е*, as in *село, море*. Examples of morphological markers of gender in Ukrainian are singular pronouns that function as referents to the corresponding gender-marked nouns: *той* (masculine), *ма* (feminine), *ме* (neuter).

The Competition Model (Bates & MacWhinney (1982; MacWhinney, 2022; MacWhinney & O'Grady, 2015) rejects the claim of generative linguists regarding a language faculty and universal grammar. Rather, language emerges from the application of ordinary cognitive processes. From a cognitive perspective, attention (implicit and explicit) is critical to acquiring cues for linguistic structure. The notion of attention used here means making the intercorrelations of lexical and grammatical morphemes more available to the learner. Taraban (2004) showed that noun marking and focusing learners' attention on morphological cues both contribute to acquiring knowledge of implicit gender-like categories. It was not clear from that work whether both forms of attention interacted or operated independently. The present experiment tests the relative contributions of noun marking and morphological cues in the acquisition of gender-like linguistic categories. The research questions are as follows:

1. Can participants induce the underlying gender-like categories when the translation of English nouns into the artificial language is not required?
2. Do participants attend to both noun marking and morphological cues when learning phrases in an artificial language?
3. Do noun marking and morphological cues interact or operate independently?

Method

Participants

Sixty English-speaking undergraduate students at a Carnegie Research 1 university in the southwest of the United States participated in this study. Participants

were recruited through the Psychology Department subject pool and participated on a voluntary basis for extra credit in a psychology course. The SONA (Sona Corporation) program was used for participant sign-ups and limited participation to students with English as their primary language and minimum age of 18 years. Due to a computer coding error, demographics were not collected. Demographics from an unpublished experiment using participants recruited through the SONA system are presented here ($N = 189$). These demographics are representative of participants recruited through this subject pool. The mean age of the participants was 19.66 years old ($SD = 2.36$). For gender, 72 % identified as female, 28 % identified as male, and less than 1 % preferred not to respond. For race or ethnicity, 49 % identified as white or Caucasian; 31 % identified as Hispanic or Latino; 8 % identified as Black or African American; 5 % as Asian; and 7 % identified as Other. Forty percent were first-generation college students, and 9 % were international students.

Materials

The materials consisted of two artificial languages (see Brooks et al., 1993; Taraban, 2004, 2008, 2018 for examples). Each language consisted of 24 noun + postposition locative phrases (See Table 1). One of the languages used unmarked nouns with consonant endings across two classes; the second language marked nouns with inflection-like endings (-*aik*, -*oo*) to delineate the two noun classes. Both languages used morphological cues (*eef*, *rog*, *ast* vs *foo*, *ilg*, *tev*) to separate the nouns into two linguistic gender-like categories. Six of the nouns in Table 1 (underlined) in each language were withheld during the learning phase and provided one test of generalization during the test that followed the learning phase.

Table 1

Phrases for Two Artificial Languages, One Language Using Unmarked Artificial Nouns and the Other Language Using Marked Artificial Nouns

	Unmarked-Noun Language			Marked-Noun Language		
English	<i>To Probe</i>	<i>From Probe</i>	<i>At Probe</i>	<i>To Probe</i>	<i>From Probe</i>	<i>At Probe</i>
	Class I Unmarked Nouns			Class I Marked Nouns		
scissors	zoze eef	zoze rog	zoze ast	zozaik eef	zozaik ro	zozaik ast
ball	billit eef	billit rog	<u>billit ast</u>	billaik eef	billaik rog	<u>billaik ast</u>
plane	<u>poom eef</u>	poom rog	poom ast	<u>poomaik eef</u>	poomaik rog	poomaik ast
car	garth eef	<u>garth rog</u>	garth ast	gartaik eef	<u>gartaik rog</u>	gartaik ast

Class II Unmarked Nouns				Class II Marked Nouns		
camera	kerm foo	kerm ilg	kerm tev	kermoo foo	kermoo ilg	kermoo tev
truck	teckon foo	teckon ilg	<u>teckon</u> tev	teknoo foo	teknoo ilg	<u>teknoo</u> tev
train	<u>drame foo</u>	drame ilg	drame tev	<u>damoo foo</u>	damoo ilg	damoo tev
umbrella	brolooo foo	<u>brolooo</u> ilg	brolooo tev	brolooo foo	<u>brolooo</u> ilg	brolooo tev

Note. Underlined phrases were withheld during the learning phase and were used for the final test.

Table 2 consists of two types of novel phrases used during the final test. For each noun, one of the phrases was used as a hint (underlined in Table 2) that was presented in conjunction with a related phrase during the test.

Table 2
Novel Phrases Using Unmarked and Marked Artificial Nouns

English	To Probe	From Probe	At Probe	English	To Probe	From Probe	At Probe
Class I Unmarked Nouns				Class I Marked Nouns			
hat	hitab eef	hitab rog	<u>hitab</u> ast	maple	<u>mupaik</u> eef	mupaik rog	mupaik ast
helicopter	<u>helt</u> eef	helt rog	helt ast	drum	tomaik eef	<u>tomaik</u> rog	tomaik ast
bed	pidd eef	<u>pidd</u> rog	pidd ast	hammer	himaik eef	<u>himaik</u> rog	himaik ast
bus	<u>bazo</u> eef	bazo rog	bazo ast	baby	velaik eef	velaik rog	<u>velaik</u> ast
Class II Unmarked Nouns				Class II Marked Nouns			
record	<u>rep</u> foo	rep ilg	rep tev	woman	warnoo foo	warnoo ilg	<u>warnoo</u> tev
broom	bram foo	<u>bram</u> ilg	bram tev	lamp	lantoo foo	lantoo ilg	<u>lantoo</u> tev
motorcycle	mokoy foo	mokoy ilg	<u>mokoy</u> tev	towel	tullooo foo	<u>tullooo</u> ilg	tullooo tev
table	tib foo	<u>tib</u> ilg	tib tev	jacket	<u>joddoo</u> foo	joddoo ilg	joddoo tev

Note. Underlined phrases were presented as a hint for testing the related phrases.

Procedure

The experiment was conducted in a quiet room in a university building, with prior approval of the university ethics committee. The experimenter met individually with each participant and obtained consent to conduct the experiment. Each participant was randomly assigned to one of four between-

subject conditions: Unmarked-Nouns & No-Blocking; Marked-Nouns & No-Blocking; Unmarked-Nouns & Noun-Blocking; Marked-Nouns & Noun-Blocking. Fifteen participants were assigned to each of the four experiment conditions. The experiment was conducted in two parts, a learning phase and a test phase. Phrases were presented serially. On each learning and test trial, a partially translated phrase, like *to car = garth ____?* appeared on the computer screen. The participant typed in a locative postposition (e.g., *eef*). During the learning phase, but not the test phase, the computer indicated whether the response was correct, and it also showed the correct response. Participants could not use written notes during any phase of the experiment.

In the learning phase, the eight nouns and their associated phrases (18 phrases total) were organized and presented in one of two ways, depending on the condition. In the Noun-Blocking condition, the eight nouns were randomized first and then the phrases for each noun were randomized. Participants were required to correctly respond to each of the phrases associated with a particular noun before proceeding to the next noun. In the No-Blocking condition, the eighteen phrases were presented in random order. Randomization of nouns and phrases in both conditions continued until the participant achieved 90% accuracy on their first responses in a block of 18 phrases. Participants were allowed up to 65 minutes for the learning phase, which was self-paced. A timer on the screen indicated how much time was left. If participants reached the 90% criterion before 65 minutes had passed, they continued to the test phase. Otherwise, they went on to the test phase after 65 minutes.

At the beginning of the test phase, participants were informed via computer that the trials would be similar to those in the learning phase but that the computer would not provide feedback about accuracy. In the first part of the test, participants were presented with the 24 phrases shown in Table 1 from their respective language in random order. These included the eighteen phrases they had studied (Studied-Old) and the six related phrases that had been withheld during study (Studied-New). For the second part of the test, participants were informed via computer that they would be presented with new phrases from the language, that because these phrases were new to them they would be provided with a hint, and that they should provide the best answer they could, even if they were unsure of their response. For example, for the novel word *broom*, the hint appeared as *Hint: to broom = bram foo*. The test item appeared on the next line – e.g., *from broom = bram ____?* Participants were tested on the 32 marked and unmarked phrases in Table 2, presented in random order.

Results

There were six dependent variables: Total Learning Time, Learning Trial Accuracy, Studied-Old Accuracy, Studied-New Accuracy, Novel-Unmarked Accuracy, and Novel-Marked Accuracy. Each dependent variable was analyzed separately in a 2 (Noun Marking: Unmarked, Marked) X 2 (Blocking: No Blocking, Noun-Blocking) ANOVA, which mirrored the four between-subjects conditions in the experiment.

For Total Learning Time there was a significant effect for Blocking [$F(1, 56) = 9.50, p = .003, MSE = 270.43$], and a significant Blocking X Noun Marking interaction [$F(1, 56) = 4.63, p = .036, MSE = 270.43$]. The main effect of Noun Marking was not significant [$F(1, 56) = .003, ns$]. Addressing the significant interaction, the means in Table 3 show that participants in the Noun-Blocking condition with Unmarked Nouns (32.88 min.) learned significantly faster than participants in the No-Blocking condition with Unmarked Nouns (55.11 min.). There was no difference due to blocking with marked nouns. In the analysis of Learning Trial Accuracy, there was only one significant effect: Blocking [$F(1, 56) = 81.54, p < .001, MSE = .012$]. The effects for Noun Marking [$F(1, 56) = .389, ns$] and Blocking X Noun Marking [$F(1, 56) = .856, ns$] were not significant. (See Table 3). In summary, there was a significant benefit to participants when learning phrases in a noun-blocked fashion (i.e., they could not advance to the next noun without achieving 100% accuracy on the postpositions for the current noun). There were no significant effects for noun marking (i.e., using inflection-like noun endings, *-aik* and *-oo*, to signal gender-like linguistic categories).

Table 3

Mean total (SD) learning time and accuracy for learning trials

	Total Learning Time (minutes)		Learning Trial Accuracy	
	Blocking Type		No Blocking	Noun-Blocking
Noun Marking	No Blocking	Noun Blocking	No Blocking	Noun-Blocking
Unmarked	55.11 (12.42)	32.88 (15.99)	.44 (.15)	.73 (.05)
Marked	45.74 (18.11)	41.79 (18.54)	.45 (.14)	.68 (.06)

An analysis of accuracy for Studied-Old phrases showed only one significant effect: Blocking [$F(1,56) = 7.46, p = .008, MSE = .033$]. The effects for Noun Marking [$F(1, 56) = .871, ns$] and the Blocking X Noun Marking interaction

[$F(1,56) = .927$, ns] were not significant. (See Table 4). The analysis of accuracy for Studied-New phrases showed a similar pattern of effects: Blocking [$F(1,56) = 8.14$, $p = .006$, $MSE = .078$], Noun Marking [$F(1,56) = 2.15$, ns], and the Blocking X Noun Marking interaction [$F(1,56) = 1.01$, ns]. In summary, participants were significantly more accurate on Studied-Old and Studied-New phrases in the Noun-Blocking conditions. Noun Marking did not result in a learning advantage.

Table 4
Mean accuracy (SD) for studied-old and studied-new phrases

	Studied-Old		Studied-New	
	Blocking Type			
Noun Marking	No Blocking	Noun Blocking	No Blocking	Noun Blocking
Unmarked	.65 (.23)	.82 (.15)	.36 (.24)	.63 (.24)
Marked	.74 (.19)	.82 (.14)	.53 (.29)	.67 (.34)

An analysis of accuracy for Novel-Unmarked phrases showed only one significant effect: Blocking [$F(1, 56) = 12.34$, $p < .001$, $MSE = .072$]. The effects for Noun Marking [$F(1, 56) = 1.37$, ns] and the Blocking X Noun Marking interaction [$F(1, 56) = 1.67$, ns] were not significant. (See Table 5). The analysis of accuracy for Novel-Marked phrases showed a similar pattern of effects: Blocking [$F(1, 56) = 10.45$, $p = .002$, $MSE = .074$], Noun Marking [$F(1, 56) = .106$, ns], and the Blocking X Noun Marking interaction [$F(1, 56) = .740$, ns]. In summary, participants were significantly more accurate on Novel-Unmarked and Novel-Marked phrases in the Noun-Blocking conditions. Noun Marking did not result in a learning advantage.

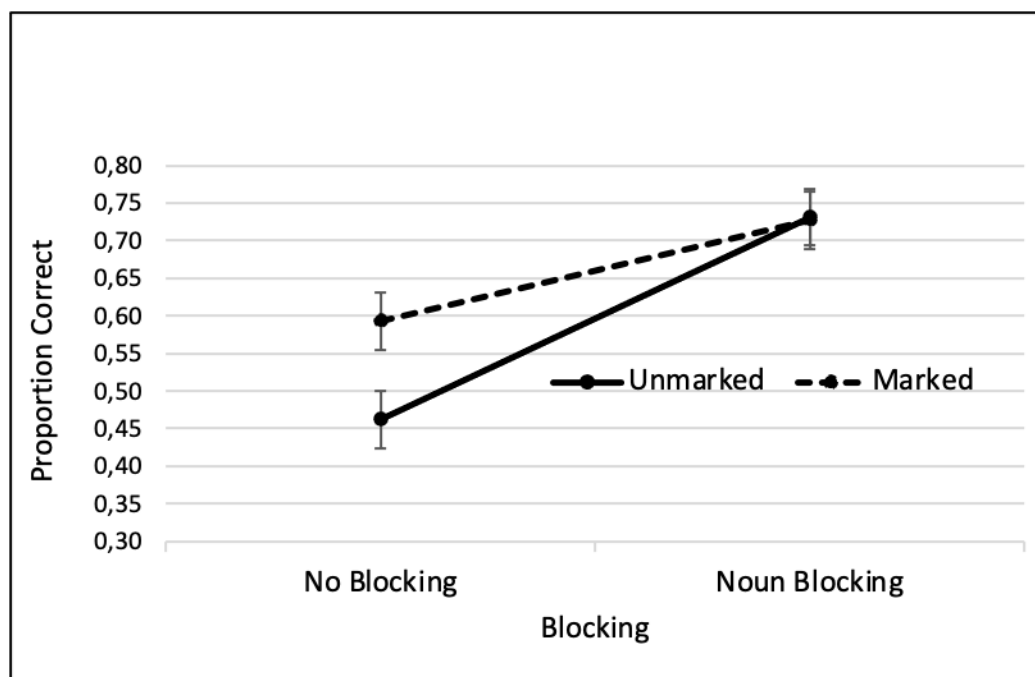
Table 5
Mean accuracy (SD) for novel-unmarked and novel-marked test phrases

	Novel-Unmarked		Novel-Marked	
	Blocking Type			
Noun Marking	No Blocking	Noun Blocking	No Blocking	Noun Blocking
Unmarked	.40 (.28)	.74 (.29)	.44 (.24)	.73 (.31)
Marked	.58 (.21)	.73 (.28)	.53 (.22)	.69 (.31)

Because of the consistency of effects across the analyses of test measures, the mean accuracy across the four test variables (Studied-Old, Studied-New, Novel-Unmarked, and Novel-Marked) was calculated, analyzed, and graphed in order to convey a clear description of the overall outcome.

Figure 1

Overall Mean Test Accuracy by Blocking and Noun Marking



Note. Data points show the mean of four variables: Studied-Old, Studied-New, Novel-Unmarked, and Novel-Marked. Error bars show standard error.

Figure 1 shows that in the noun blocking conditions, noun marking did not have an effect. However, in conditions of no noun blocking, the marked-noun condition trended toward higher accuracy than the unmarked-noun condition. However, the apparent difference between unmarked and marked nouns in the no-blocking condition was not statistically significant in any of the preceding analyses.

Discussion

Addressing the first research question, *Can participants induce the underlying gender-like categories when the translation of English nouns into the artificial language is not required*, the results showed significant effects for Studied-Old phrases and significant generalization effects for Studied-New, Novel-Unmarked, and Novel-Marked phrases. Therefore, the findings indicated that

participants do not need to learn noun translations in order to induce the underlying gender-like noun categories.

The second research question asked *Do participants attend to both noun marking and morphological cues when learning phrases in an artificial language?* The statistical analyses showed significant effects only for blocking. Blocking required participants to choose the correct locative postposition for each of the phrases for a given noun during learning, before proceeding to the next noun. Therefore, attention to the syntactic paradigm associated with locatives produced robust learning effects. The effect of blocking was strong regardless of whether nouns were marked or unmarked.

The third research question asked *Do noun marking and morphological cues interact or operate independently?* An examination of Tables 3, 4, and 5 showed that in the No-Blocking conditions, Marked Nouns showed higher accuracy than Unmarked Nouns. An examination of the No-Blocking effects in Figure 1 shows the same effect. The consistency of the advantage of marked vs unmarked nouns in evoking the correct locative postposition suggests that noun marking may have had an effect, however, the effect may have been reduced because participants did not need to translate the English nouns, nor orally speak the nouns or input the nouns, as part of their responses in this experiment.

There are several limitations in the present study. Given that this university is an Hispanic-serving institution and that many of the participants were first-generation college students (based on our representative demographics), it will be important in future studies to administer a language-use inventory to assess participants' native language and their knowledge of a second language and home use of a second language. Because we do not know which participants were mono-lingual English speakers and which were multi-lingual, it is not clear how to generalize these results to specific populations. Finally, morphological and noun cues were perfectly reliable markers of their respective gender-like categories. Natural languages, however, have exceptions to rule-like relationships between cues and categories. This aspect of natural languages was not tested in the present experiment. Finally, requiring participants to more actively process the nouns in the experiment, by requiring them to speak or input their complete responses to the computer, may amplify their attention to noun marking and provide a better metric for the relative contributions of noun marking and blocking in category induction.

Conclusions

The results of the present experiment are consistent with prior research showing the effects of orthographic noun cues on non-native (Taraban &

Roark, 1996) and native speakers (Taraban & Kempe, 1999) acquiring and processing linguistic gender categories. Other research has shown the effects of noun cues and morphological cues on the acquisition of case marking by German and Russian L2 learners (Kempe & MacWhinney, 1998). The rationale for these experiments is based on the Competition Model (Bates & MacWhinney (1982; MacWhinney, 2022; MacWhinney & O’Grady, 2015), whose underlying principles assert that knowledge of linguistic categories can be acquired through learning and processing linguistic cues associated with language operations. The role of attention to cues (Taraban, 2004) is affirmed in the present experiment. Some researchers have taken a strong position on the role of cues associated with the nouns themselves in linguistic category induction (Braine, 1987). Brooks et al. (1993), for instance, concluded that “without some similarity relation (phonological or semantic) among a subset of class members, word classes are difficult, if not impossible, to learn” (p. 92). The results here and elsewhere (Taraban, 2004; 2008; 2018) show that noun blocking, without noun marking, is sufficient for linguistic category induction. The present results suggest several questions for future research that have not yet been addressed. One question is whether children acquiring richly inflected languages, like Polish and Ukrainian benefit from noun marking and blocking to the same extent as non-native language learners and adult second-language learners. Another question is whether native Polish and Ukrainian adult language learners would show the same pattern of effects as shown here with English-speaking participants.

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