Error Analysis and Frequency in the Writing Section of the STANAG 6001 English Examination Among Military Students: A Corpus-Based Study of Proficiency Level Variations

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Abstract: This study examines error types and their frequencies in the writing section of the STANAG 6001 English examination among military students, with a focus on variations across proficiency levels. The STANAG 6001 is a high-stakes examination used to assess the language proficiency of military personnel, playing a crucial role in their career advancement and operational effectiveness. The analysis employs a corpus-based methodology to identify prevalent error types, examine their distribution, and quantify their frequencies. A total of 240 written responses from military students at proficiency levels 1, 1+, and 2 were analyzed, with errors classified into orthographical, grammatical, and lexical categories. The results indicate notable differences in the frequency and categories of errors across proficiency levels. These variations highlight the specific linguistic challenges encountered by students at various developmental stages. The results correspond with the proficiency descriptors for each level, particularly the necessity for accurate verb usage in narration and description at level 2, while also indicating that certain recurring errors are tolerated within the range of acceptable performance at this level. This research has significant implications for classroom instruction and curriculum design, suggesting the need for targeted teaching strategies to address the specific error patterns that hinder progression between levels.

Introduction

The growing importance of English language proficiency in military contexts highlights the need for effective language training programs and language assessment. The NATO Standardization Agreement 6001 (STANAG 6001) offers a structured approach to assessing language proficiency across the four skills: listening, speaking, reading, and writing (BILC, n. d.). STANAG 6001 defines 6 proficiency levels, ranging from Level 0 (no proficiency) to Level 5 (highly-articulate native speaker), which are used to standardize language training and assessment for NATO operations and international staffing requirements (BILC, n. d.). These standardized levels are essential for ensuring that military personnel possess the necessary linguistic competencies to communicate effectively in multinational and operational settings (Green & Wall, 2005; Monaghan, 2012).

Despite the widespread use of the STANAG 6001 English examination as a standard for assessing language proficiency among military personnel, there remains limited research focused on specific areas of difficulty, such as error types, their distribution, and the frequencies observed across the different proficiency levels. While the examination is an essential tool in gauging the linguistic competencies required for military communication, there is a notable gap in the literature regarding the detailed analysis of errors made by examinees. No study to date has systematically quantified, categorized, or contrasted the errors that occur at varying proficiency levels of the STANAG 6001, particularly focusing on a specific group of examinees such as military university students. This lack of comprehensive error analysis hampers efforts to understand the unique linguistic challenges faced by this population, limiting insights into how their language skills evolve across proficiency levels. Such a study could provide valuable information on error patterns, informing both language instruction strategies, meaningful targeted feedback and test development in the context of STANAG 6001.

The present study adopts a corpus-based approach to investigate the types, distribution, and frequency of errors in the written component of the STANAG 6001 English examination among military students at the University of Defense in Brno, Czech Republic. The corpus linguistics tool used is TeiTok to allow for statistical analyses of the data. The primary focus is on Level 2 proficiency, which holds particular significance, as it is the most commonly attained level among these students. Attaining Level 2 is a mandatory requirement for all students at the University of Defense in order to successfully complete their studies, making this research especially relevant for understanding the linguistic challenges that impact academic and professional success within this unique educational context.

To comprehensively examine error patterns in the written component of the STANAG 6001 English examination, this study is guided by the following research questions:

- Research Question 1: What are the most prevalent error types found in the written component of the STANAG 6001 English examination among military students?
- Research Question 2: What are the implications of specific errors types and their corresponding frequencies as exhibited by military students at each proficiency level in their written responses?

Understanding the most prevalent error types (Research Question 1) enables the development of targeted instructional strategies that can address the specific challenges faced by military students. Investigating the specific errors and their frequencies across proficiency levels (Research Question 2) provides a more nuanced analysis of linguistic difficulties, allowing for meaningful comparison and

contrast between different proficiency groups. Exploring the variations in error types across proficiency levels offers valuable insights into the progression of language proficiency, shedding light on how errors evolve as students advance. This analysis can also provide critical information regarding the standardized assessment framework of the STANAG 6001 examination for levels 1, 1+, and 2, which play a key role in the academic success of military students at the University of Defense.

Theoretical Framework

In the context of second language acquisition (SLA) and error analysis (EA) (Richards, 2014; Richards & Schmidt, 2013; Ferris, 2011; James, 2013), a critical distinction is made between errors and mistakes, which plays a central role in understanding learner language. According to Corder (1967), errors occur due to a lack of knowledge of the language rules and are often systematic, reflecting gaps in the learner's linguistic competence. In contrast, mistakes are non-systematic deviations from the correct form, often resulting from lapses in performance, such as slips of the tongue, fatigue, or momentary confusion. Mistakes are not indicative of the learner's overall competence but rather of temporary processing issues (James, 2013). While errors are a key focus in language learning research, mistakes are typically less significant, as they do not indicate a deeper problem with language acquisition (Corder, 1967; Ferris 2011).

In light of the above argumentation, this study adopts the concept of errors as its primary focus, as they provide the most valuable insights into learners' underlying linguistic competence and developmental stages in the context of writing. Errors, as opposed to mistakes, represent more systematic deviations that reveal the learners' gaps in knowledge and highlight recurring patterns that can be analyzed to inform both pedagogical strategies and applied research (Ellis, 1997; James, 2013). By concentrating on errors, this study aligns with previous research in SLA, which emphasizes that the identification and analysis of errors offer deeper insights into the learning process, thus contributing more significantly to understanding language acquisition challenges (Corder, 1967). Accordingly, this research aims to explore how these errors manifest across different proficiency levels in the STANAG 6001 English examination, as they serve as a reliable indicator of language assessment in alignment with the STANAG 6001 language levels descriptors.

The distinction between errors and mistakes is also crucial for educators as it guides approaches to feedback and correction. As outlined by Corder (1967), teachers should focus on addressing errors, as they reveal underlying issues in a learner's understanding, whereas mistakes may not need direct correction unless they hinder communication. Additionally, self-correction has been shown to

be an effective method for learners to internalize the correct forms, particularly when errors occur due to unfamiliarity with a language structure (Freiermuth, 1997). Immediate correction of mistakes, especially minor ones, can disrupt the learner's communicative flow and may negatively impact their confidence or motivation.

Errors are commonly classified into several categories based on their origins and characteristics. One of the most prominent frameworks is the distinction between interlingual and intralingual errors. Interlingual errors stem from the interference of the learner's first language (L1), where features of the L1 are transferred incorrectly to the second language (L2). For example, a learner might use L1 word order or syntax when constructing sentences in the L2. Intralingual errors, on the other hand, arise from the complexities and overgeneralizations of the L2 itself, such as overapplying grammatical rules or simplifying linguistic forms (James, 2013; Freiermuth, 1997).

Further classifications include errors related to omission, addition, misordering, and misformation. These categories describe how learners may omit necessary linguistic elements, add unnecessary ones, incorrectly order words, or use incorrect forms, respectively. These types of errors can reveal the developmental stages a learner is going through, as well as the complexity of the linguistic features being acquired (James, 2013, p. 37). Understanding these error types allows educators to tailor their instruction and feedback to the learner's specific needs, focusing on patterns of error that most impede language acquisition and communication.

James's (ibid.) categorization of errors into the above-mentioned types provides a structured framework for analyzing language learners' errors, which is also applied in the present study. By classifying errors into these distinct types, researchers can systematically track and quantify error patterns across large datasets, facilitating the identification of recurring issues in language acquisition. This approach allows for targeted corpus analysis, helping to isolate specific language features or structures that present difficulties for learners from a given cohort. It also enables comparative studies across different learner groups, offering insights into how various linguistic features are acquired or misused at different proficiency levels.

The categorization of errors into omission, addition, selection, and ordering provides valuable insights into the language learning process. While it offers clarity and a structured approach to error analysis, it is essential to recognize its limitations. A comprehensive understanding of learner errors should integrate this categorization with a broader analysis that considers context, communicative intent, and the interconnected nature of language use. Balancing these perspectives can enhance both teaching practices and research in applied linguistics.

Literature Review of Corpus-Based Error Analysis of EFL Writing

Research on error analysis in English as a Foreign Language (EFL) writing has extensively employed corpus-based methodologies to uncover patterns in learner errors and suggest pedagogical improvements. Various studies have focused on different educational contexts and error types, using diverse analytical tools and frameworks.

A study by by Divsar and Heydari (2017) presented a corpus-based analysis of errors in IELTS essay writing among EFL learners, focusing on identifying the most common types of errors to enhance instructional practices. Utilizing a learner corpus of 70 IELTS essays, the study categorized errors into 13 distinct types, revealing that word choice and verb form errors are the most prevalent. The study advocated for further exploration of error sources and their relation to learners' proficiency levels, highlighting the potential of learner corpora in improving second language writing skills.

Jichun (2015) conducted a study on Chinese non-English major students, utilizing a corpus-based approach to identify common writing errors. The study focused on grammatical, lexical, and syntactic errors, revealing persistent challenges in achieving grammatical accuracy despite learners' extensive vocabulary knowledge. The use of computer-aided tools for error tagging provided detailed insights into error patterns, suggesting targeted instructional strategies for improvement.

Another study by Boroomand & Abusaeedi (2013) examined the errors in Iranian EFL learners' writing, categorizing them into omission, addition, misformation, and misordering. The research found that grammatical errors were the most prevalent and suggested that addressing these errors through targeted instruction could significantly enhance students' writing skills.

The research by Sugiharto (2013) on Indonesian junior high students also adopted a corpus-based approach, focusing on common errors in grammatical structures and vocabulary. The study employed statistical tools to analyze the frequency and distribution of errors, emphasizing the importance of detailed error analysis to inform effective teaching strategies.

Similarly, the study on Chinese EFL learners' errors by Zhang (2013) used a hierarchical error tagging system to categorize and analyze errors. This research highlighted the high frequency of grammatical errors, verb phrase errors, and lexical errors, underscoring the need for targeted instruction to address specific linguistic challenges. The study's use of corpus analysis tools enabled a comprehensive understanding of error patterns and their pedagogical implications.

A research study by Aqil et al. (2022) investigated the types and frequencies of errors made by secondary school L2 learners in Pakistan during essay writing. The study employed a mixed-methods approach, combining quantitative data analysis using corpus software (AntConc) and qualitative analysis based on Corder's error analysis model (as cited in Aqil et al., 2022). The results indicate that spelling errors are the most frequent, followed by grammatical, punctuation, and discourse errors. The study highlights the need for better instructional strategies to address these errors, emphasizing the importance of error analysis in improving language teaching for L2 learners.

A corpus-based study by Shirban and Lai (2021) examined the types and frequencies of errors made by Taiwanese university students in English essay writing. Using a modified error taxonomy, the study utilized a longitudinal approach, analyzing essays written by students over 12 semesters. The most common error type was misformation, including mistakes in tenses, prepositions, and subject-verb agreement, followed by omission, addition, and others, such as spelling and word choice. The study highlights the impact of L1 interference and suggests pedagogical strategies to reduce these errors and improve writing proficiency in EFL learners.

Another important contribution comes from Lee's (2011) study, which presented an automated method for generating realistic grammatical errors. This approach can significantly enhance computer-assisted language learning (CALL) systems by providing context-dependent corrective feedback and educational materials. The use of quantitative and qualitative methods in this study underscored the value of integrating technology in language error analysis and instruction.

Diaz-Negrillo's (2006) research on Spanish university students employed a corpus-based study to analyze error associations in English writing. This study stressed the importance of understanding error distribution and association to improve language instruction. The findings suggested that a detailed analysis of error patterns could inform more effective teaching strategies tailored to learners' specific needs.

Hayati's study (2019) investigates the written errors of second-semester English major students at an Indonesian University. Through an analysis of 114 written responses, the study found that the most frequent errors were in the use of to be/auxiliary verbs. The research highlights that many errors stem from interlingual interference, leading to systematic deviations in English. It emphasizes the importance of error analysis as a tool for understanding learners' difficulties.

Finally, the study by Doolan (2013) compared error patterns in a corpus of Generation 1.5, L1, and L2 community college student writing. The research found that Generation 1.5 writers made more errors in verb usage, prepositional phrases,

and word forms compared to L1 writers. This study highlighted the need for differentiated instructional approaches to address the unique challenges faced by diverse learner groups.

Building on the methodologies and findings of these studies, this research aims to fill a unique niche by focusing on the written component of the internationally standardized NATO STANAG 6001 examination among military university students. This corpus-based study utilizes the TeiTok software for error tagging and analysis, providing a detailed examination of error types and frequencies across the three proficiency levels (1, 1+, and 2). Additionally, the use of the VersaText tool enables detailed statistical analysis, offering insights into word frequency, part-of-speech distribution, and concordance lines for better understanding error patterns and their progression across proficiency levels. The combined use of these tools ensures a comprehensive analysis of linguistic challenges in this specific learner population, allowing for more targeted instructional strategies.

Methods

This study employs a corpus-based approach to analyze error types, their distribution and frequency in the written component of the STANAG 6001 English examination. A mixed-methods design was used to combine quantitative error frequency analysis with qualitative examination of error types (Creswell & Creswell, 2017; Johnson & Christensen, 2019). The corpus tool used in the present study was TeiTok (Text Encoding Initiative for Tokenization).
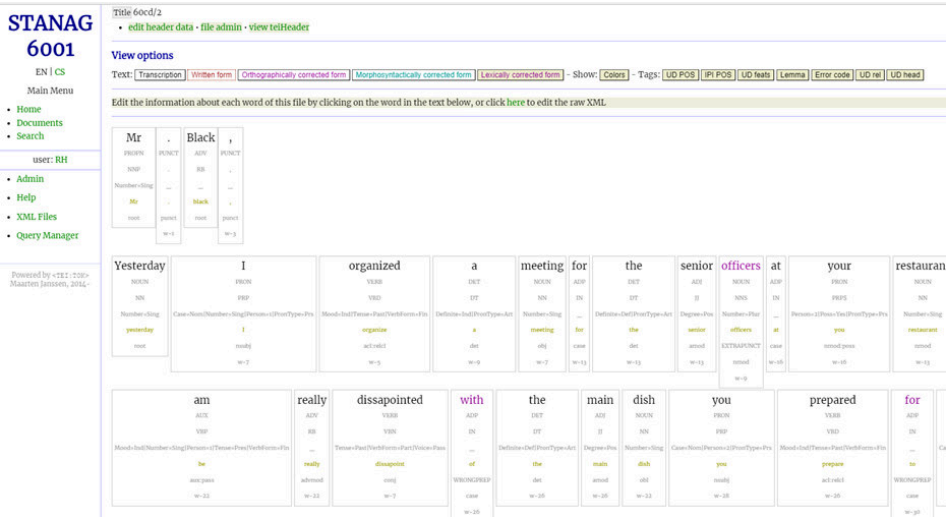

Fig. 1: *TeiTok environment with an annotated and coded sample of one written response*

TeiTok is an advanced text annotation and corpus management tool designed to support linguists and language researchers in the detailed analysis of textual data. Its user-friendly interface enables researchers to upload texts, annotate them with relevant linguistic tags, and manage large corpora efficiently. The tool's integration with XML technology ensures that annotations are both human-readable and machine-processable, facilitating sophisticated searches and data retrieval for linguistic research. An example of a TeiTok environment is shown above in Picture 1.

Tab. 1 below demonstrates the distribution of participants and written responses by proficiency level and gender among military students from the University of Defense who took the STANAG 6001 English examination between 2020 and 2024. A total of 120 students were randomly selected, ensuring an equal distribution and representativeness (Egbert et al., 2022) of gender and proficiency levels. The participants included 20 male and 20 female students at each of the proficiency levels 1, 1+, and 2. Each student completed two writing tasks as part of the writing component of the STANAG 6001 level 1–2, resulting in a total of 240 written responses and forming the STANAG 6001 Corpus. This balanced approach provided a comprehensive dataset for analyzing error frequency and patterns across different proficiency levels with equal gender distribution. All the students participating in this study were anonymized to ensure compliance with ethical research standards, and each participant signed a consent form agreeing to allow their STANAG results to be used for research purposes.

Tab. 1: *Distribution of Participants and Written Responses by Proficiency Level and Gender*

STANAG 6001 Proficiency Level	Gender	Number of Students	Number of Tasks Per Student	Total Responses
Level 1	Male	20	2	40
	Female	20	2	40
Level 1+	Male	20	2	40
	Female	20	2	40
Level 2	Male	20	2	40
	Female	20	2	40
Total		**120**		**240**

Data were collected from the written component of the STANAG 6001 English exam, comprising responses written by the students taking the exam for level 1–2 (i.e. with the results of either 1, 1+, or 2). Each written response includes 2 tasks: the first task is a short message or note, the recommended number of words being 70 for the completion of the task. The second task can be a report, complaint, or invitation, with the recommended number of words being 150 for the successful completion of the task. Task instructions contain specific steps that the written responses should contain, e.g. writing a report about an incident will

typically have the following steps: what happened, where and when it happened, a detailed description of the incident, recommendations for preventing such incidents in the future. The rationale behind these instructions is to obtain a sample of students' writing that would demonstrate the students' ability to write about past and future events in accordance with the STANAG 6001 descriptors for Level 2 (BILC, n. d.). Each written response was transferred into TeiTok, annotated and coded for orthographical, morphosyntactical and lexical errors. The SCOPE and SUBSTANCE framework (Dobrić, 2023) was used in the annotation process of the STANAG 6001 Corpus, which provided a systematic approach to identifying and categorizing errors in our corpus. Firstly, the presence of an error was identified and marked, i.e. textual features were assessed that deviated from accepted language norms. Secondly, a SCOPE and a SUBSTANCE were assigned to the identified error, the former referring to the linguistic extent of the error (e.g. word, phrase, clause, sentence, etc.), the latter indicating the specific nature of the error (i.e. classifying error types into various types such as suffix error, punctuation error, etc.) (Dobrić, 2023).

Results

Research Question 1: What are the most prevalent error types found in the written component of the STANAG 6001 English examination among military students?

The total number of errors was determined to be 4,386, found in 240 tasks in the written component of the STANAG 6001 examination completed by 120 military students taking the examination between 2019 to 2024 to achieve either levels 1, 1+ or 2. A statistical analysis revealed significant variations in error frequency and types across the three proficiency levels, with morphosyntactical errors being the most frequent, followed by orthographical errors and lexical errors. The percentage distribution for each error category and further error specification, including examples of each error type taken from the STANAG 6001 corpus, is summarized in Tab. 2 below. Fig. 2 below illustrates the distribution of errors described in Tab. 2.

Both Tab. 2 and Fig. 2 illustrate the distribution of error types, showing that morphosyntactical errors are the most prevalent, accounting for the highest number of errors at 2,138. This is followed by orthographical errors, which total 1,341, and lexical errors, which are the least frequent, with 907 occurrences. The visualization highlights the significant challenge that morphosyntactical accuracy poses to examinees compared to orthographical and lexical components, suggesting areas where additional focus and training might be beneficial to improve overall language proficiency.

Tab. 2: *Categorization and Further Specification of Errors with Examples Taken from the Corpus*

| Error category	Error count and percentage	Specific highlighted error types with examples
Morphosyntactic errors	2138 48.75%	• Articles: e.g. *Our soldiers had* a *competitions.* • Suffixes: e.g. *I am very* interesting *about people.* • Auxiliary verbs: e.g. *We* was *looking after about our friend…* • Pronouns: e.g. *It's close from* me *job…* • To-infinitive: e.g. *…he should not* to *drive to the way…*
Orthographical errors	1341 30.57%	• Spelling: e.g. *I want to* reccommend *you…* • Punctuation: e.g. *I think* , *that we get some sale…*
Lexical errors	907 20.68%	• Prepositions: e.g. *…which is too much* on *my opinion.* • Conjunctions: e.g. *…first problem* what *I had…* • Vocabulary: e.g. *…he* learnt *us many thinks about guns.*
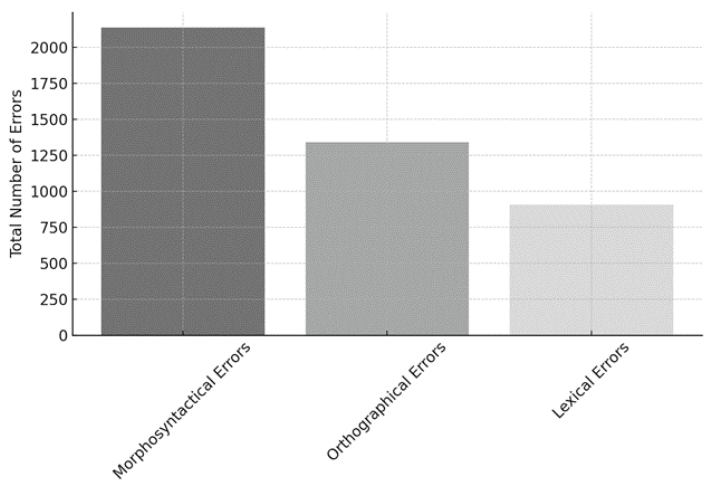
Fig. 2: *Distribution of Errors by Category*

Prepositions and conjunctions were categorized as lexical errors because they play a fundamental role in sentence meaning and coherence, and errors in their usage often result from incorrect lexical choices rather than grammatical structure alone. Prepositions and conjunctions are key to expressing relationships between

words, phrases, and clauses, which makes their misuse a significant issue in conveying accurate meaning (James, 2013).

Tab. 3 and Fig. 3 illustrate the distribution of various error types found in the written component of the STANAG 6001 English Examination. These data reveal interesting insights into the frequency and nature of linguistic challenges faced by STANAG 6001 examinees, providing a foundation for targeted pedagogical strategies.

Tab. 3: *Distribution of Errors Including the Count and Percentage for Each Error Type*

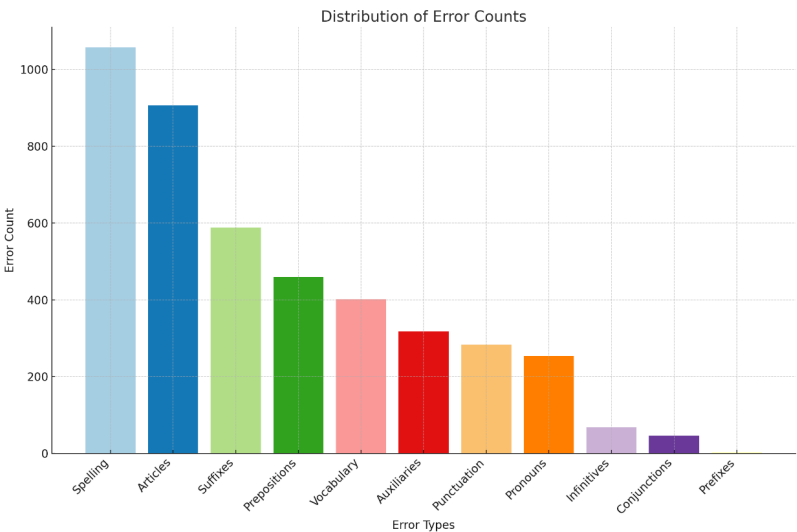| Group	Count	Percent
spelling	1058	24.12
articles	907	20.68
suffixes	588	13.41
prepositions	460	10.49
vocabulary	401	9.14
auxiliaries	318	7.25
punctuation	283	6.14
pronouns	254	5.79
infinitives	68	1.55
conjunctions	46	1.05
prefixes	3	0.07
TOTAL	**4386**	**100**

Fig. 3: *Distribution of Error Counts for Each Type of Error*

The data illustrated highlight the prominence of certain error types among military students undertaking the STANAG 6001 English examination for levels 1–2. Spelling errors emerge as the most frequent, accounting for 24.12% of the total errors, with a count of 1,058. This high incidence suggests a substantial need for focused spelling instruction and practice within the curriculum, as far as pedagogical implications are concerned. On the other hand, it implies that spelling errors may not impede comprehension as significantly as other error types, such as grammatical or syntactical errors, which can distort meaning or disrupt the logical flow of communication. This suggests that while frequent, spelling errors are less critical from a communicative and assessment perspective and therefore might not be regarded as obstacles to successful attainment of STANAG Level 2, provided they do not occur excessively. However, the persistence and frequency of such errors reflect gaps in fundamental language skills and may point to a lack of communicative competence in the examinee.

Article errors are the second most prevalent, constituting 20.68% of the total errors with 907 occurrences. The frequent misuse of articles is indicative of the complexities associated with article usage in English, particularly for learners whose first languages may not use articles in the same way, as is the case with the Czech language. This finding underscores the importance of incorporating comprehensive exercises that address the nuances of article application in various contexts. The same argument can be applied to article errors, as correct usage, or the lack thereof, generally does not significantly impede communication and is not weighted as heavily in the STANAG 6001 assessment as more critical errors that directly affect meaning and coherence. While article misuse can affect fluency, it is often viewed as less detrimental to overall communication than other errors involving grammar or vocabulary, which are prioritized in assessing language proficiency.

Errors related to suffixes (13.41%, 588 occurrences) are statistically significant, highlighting key areas where military students face difficulties, particularly in forming correct tense constructions, plurals, adjectives, adverbs, etc. These types of errors indicate challenges in morphosyntactical awareness, especially regarding the accurate use of grammatical forms that are essential for coherent written communication. For instance, forming the correct future and past tense is critical in narrative tasks required by the STANAG 6001 examination, where examinees are expected to demonstrate competence in conveying events and actions in different time frames. Correct tense usage, especially in past and future narration, is fundamental to effective communication at STANAG Level 2, where examinees must be able to describe past experiences and future plans with clarity. The persistence of such errors suggests that learners may lack the necessary tools to articulate these concepts, thus impairing their ability to meet the exam's language level

descriptors, which emphasize the importance of correct temporal sequencing and morphosyntactic precision.

Errors related to prepositions (10.49%, 460 occurrences) and vocabulary (9.14%, 401 occurrences) are also statistically significant because they highlight examinees' limited lexical awareness and their inability to express precise meaning in their written responses. Prepositions play a critical role in conveying relationships between concepts and objects, and incorrect usage can lead to ambiguity or misinterpretation. This is especially problematic for learners who must demonstrate clear and accurate communication, as required by the STANAG 6001 descriptors. Misuse of prepositions often stems from the influence of the learner's native language, where prepositional usage may differ substantially, leading to systematic errors that affect the flow and coherence of the text.

Similarly, errors in vocabulary selection reflect gaps in the learners' lexical repertoire, limiting their ability to choose words that convey nuance and specificity. For military students taking the STANAG 6001 exam, the ability to select precise vocabulary is essential for completing tasks such as describing events or giving instructions, as required by the assessment. The frequent occurrence of these errors suggests that learners may lack the lexical range necessary for effective STANAG 6001 Level 2 written communication.

Other errors, though less frequent, remain crucial within the STANAG 6001 assessment framework, including those related to auxiliaries (7.25%, 318 occurrences), punctuation (6.14%, 283 occurrences), and pronouns (5.79%, 254 occurrences). These errors reflect persistent challenges in mastering essential aspects of grammar and punctuation that are fundamental for producing coherent and accurate written communication. Auxiliary verbs are critical in forming questions, negatives, and various tenses, and errors in their usage can significantly affect sentence meaning and clarity. For example, incorrect auxiliary use can disrupt tense formation, which are particularly important for expressing future and past narration – key functions expected in both everyday communication and specific military contexts as outlined by the STANAG 6001 descriptors.

On the other hand, errors in punctuation generally do not seem to significantly disrupt the logical flow and structure of a written response, especially at STANAG Level 2, where the focus is on functional communication rather than strict grammatical accuracy. Punctuation mistakes may lead to minor issues in sentence clarity, but they rarely impair the overall ability to convey concrete language functions. In the context of the STANAG 6001 examination, which prioritizes communicative effectiveness over linguistic perfection, punctuation errors are typically regarded as less critical compared to errors in grammar or vocabulary that directly affect meaning or comprehension. Finally, pronoun errors are indicative of challenges learners face in mastering the appropriate use of subject, object,

possessive, and demonstrative pronouns, which are fundamental for clear and coherent sentence construction. These errors can lead to ambiguity or confusion in written responses, especially when pronouns do not clearly reference their antecedents, resulting in unclear communication.

Errors in the use of infinitives (1.55%, 68 occurrences), conjunctions (1.05%, 46 occurrences), and prefixes (0.07%, 3 occurrences) are the least common among the error types observed in the written component of the STANAG 6001 exam. These lower frequencies suggest that, while important for precise language use, these particular areas may present fewer challenges for learners especially at STANAG 6001 Level 2.

Research Question 2: What are the implications of specific errors types and their corresponding frequencies as exhibited by military students at each proficiency level in their written responses?

Tab. 4 and accompanying Fig. 4 below provide an in-depth analysis of the error types encountered by military students at different proficiency levels (Level 1, Level 1+, and Level 2) in the STANAG 6001 English examination. By examining the frequency and distribution of these errors, we can gain valuable insights into the linguistic challenges faced by learners at varying stages of a proficiency level in the context of the STANAG examination.

Tab. 4: *Comparison of Error Types and their Frequencies across the three Proficiency Levels*

LEVEL 1			LEVEL 1+			LEVEL 2		
Group	Count	Percent	Group	Count	Percent	Group	Count	Percent
spelling	433	40.92	spelling	413	39.04	spelling	212	20.04
articles	374	41.23	articles	266	29.33	articles	267	29.44
suffixes	304	51.7	suffixes	197	33.5	suffixes	87	14.8
prepositions	221	48.04	prepositions	156	33.91	prepositions	83	18.04
vocabulary	178	44.39	vocabulary	145	36.16	vocabulary	78	19.45
auxiliaries	158	59.69	auxiliaries	113	35.53	auxiliaries	47	14.78
punctuation	138	48.76	punctuation	70	26.52	punctuation	75	24.73
pronouns	137	53.94	pronouns	76	29.9	pronouns	41	16.14
infinitives	37	54.41	infinitives	23	33.82	infinitives	8	11.76
conjunctions	25	54.35	conjunctions	13	28.26	conjunctions	8	17.39
prefixes	0	0.00	prefixes	1	33.33	prefixes	2	66.67
TOTAL	2005		TOTAL	1473		TOTAL	908	

From the provided data and their visualizations comparing error counts and percentages, several key insights can be derived regarding differences in error types and their frequencies across the three STANAG 6001 levels.
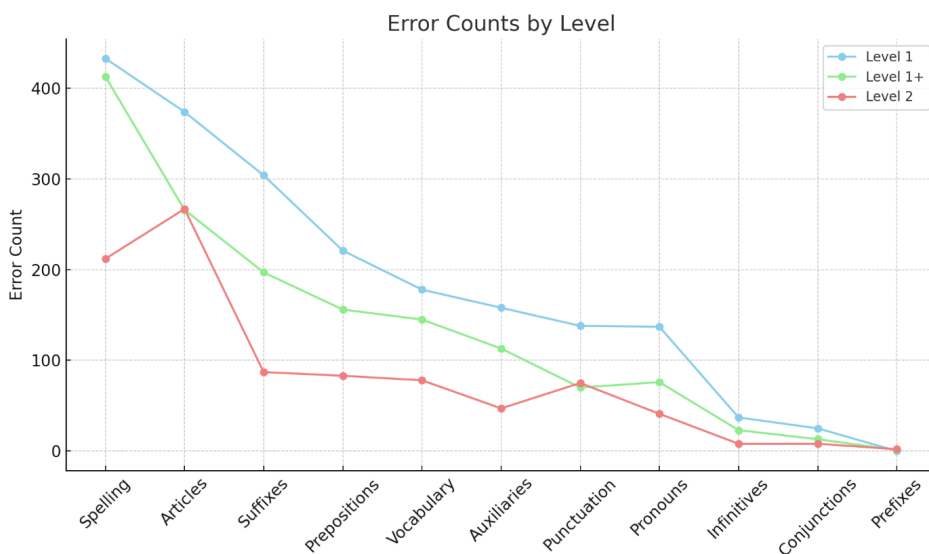
Fig. 4: *Error Counts by Level*

In Level 1, students exhibit a high frequency of errors across various linguistic categories, with particularly notable challenges in auxiliaries, pronouns, and suffixes. Auxiliary-related mistakes are prevalent, comprising 59.69% of the total errors. This suggests that learners at this stage struggle significantly with verb forms and the appropriate use of auxiliary constructions, such as "be", "do", and "have". These errors likely indicate a lack of mastery over tense formation and the combination of auxiliary verbs with main verbs, a crucial aspect of English grammar that impacts both sentence structure and meaning, leading to an assessment of level 1 due to these errors.

Errors in the use of pronouns account for 53.94%, pointing to persistent difficulties in managing personal, possessive, and demonstrative pronouns. Such high error rates in this area suggest that learners face challenges with pronoun agreement, case usage (subjective, objective, and possessive forms), and clarity in referencing, all of which are fundamental to cohesive and coherent communication in English. Pronoun usage errors are particularly problematic as they can obscure the meaning of a sentence and disrupt the logical flow of ideas, which is critical in both written and spoken communication.

Similarly, suffix-related errors account for 51.7% of the total mistakes, reflecting a substantial challenge in mastering word formation. This includes the proper use of derivational and inflectional suffixes across verbs, nouns, adjectives, and adverbs.

For instance, learners may struggle with forming correct verb tenses (e.g., adding "-ed" for past tense), pluralizing nouns (e.g., adding "-s" or "-es"), and using adjectives and adverbs correctly (e.g., distinguishing between "-ly" forms for adverbs and adjective suffixes like "-able" or "-ive"). These errors suggest that students at this level have not yet internalized the rules governing how words change form to express different grammatical functions or nuances of meaning.

In Level 1+, while overall error rates have decreased compared to Level 1, certain categories such as spelling, vocabulary, auxiliaries, and prepositions continue to pose significant challenges. Spelling errors, for instance, account for 39.04% of the total spelling errors, indicating that learners at this stage still struggle with the correct orthography of words. These spelling mistakes likely stem from confusion between phonetic and visual patterns in English and from the interference with the Czech language.

Vocabulary errors constitute 36.16% of the total, suggesting ongoing difficulties with word choice and contextual understanding. This high frequency of vocabulary-related errors indicates that learners may struggle to select appropriate words in specific contexts or to accurately use more advanced or nuanced vocabulary. Additionally, students at this stage might exhibit gaps in their lexical range, often relying on simpler or more familiar words when more precise or complex language is required. The incorrect use of vocabulary can severely impact the clarity and sophistication of communication, making it difficult for learners to fully express their ideas for Level 2.

Auxiliary-related errors account for 35.53% of the total, showing that difficulties with verb forms and auxiliary usage persist, though the frequency has decreased from Level 1. As in Level 1, these errors often involve incorrect tense formation, misuse of modal verbs, and confusion between the auxiliary verbs "do", "be", and "have". While learners at this level may have begun to grasp basic tense structures, the presence of auxiliary-related errors suggests that they still struggle with more complex verb constructions, such as forming questions, negatives, and progressive forms of the tenses, which rely heavily on the correct use of auxiliaries.

Overall, while students at Level 1+ demonstrate progress in reducing their error rates, persistent difficulties with spelling, vocabulary, auxiliaries, and other linguistic features indicate that these areas still require targeted attention. The ongoing challenges with correctly forming past and future tenses, as well as frequent instances of missing or incorrect vocabulary usage, suggest that learners have not yet fully mastered key aspects of language accuracy. These issues significantly impact their ability to communicate effectively, which is why their written performance continues to align with Level 1+ proficiency. Despite improvements in certain areas, the presence of these errors justifies the assessment at this level,

as they highlight the need for continued instruction and practice to achieve higher proficiency.

In Level 2, students demonstrate significant improvement across most error categories, but persistent challenges with articles and punctuation remain. While errors in the use of articles and punctuation are still evident, they do not appear to substantially impact the assessment at this level. Article-related errors continue to account for 29.44% of the errors, indicating that learners may struggle with the correct usage of definite and indefinite articles. Similarly, punctuation errors, which account for 24.73% of total errors, suggest some ongoing difficulties in the correct application of punctuation marks, especially in more complex sentence structures. However, these issues are not severe enough to hinder overall communication, and thus do not detract from a Level 2 assessment.

On the other hand, errors related to suffixes and auxiliaries are notably infrequent at this stage, reflecting learners' growing proficiency in using these elements correctly. With suffix-related errors reduced to just 14.8%, and auxiliary errors down to 14.78%, students at Level 2 demonstrate a strong ability to correctly form past and future tenses, as well as to use appropriate verb conjugations and auxiliaries. This proficiency enables them to narrate events across different time frames accurately, suggesting that they have gained a solid grasp of the grammatical structures necessary for more complex communication. The low frequency of suffix and auxiliary errors reinforces the overall assessment of Level 2, indicating that learners at this stage are capable of expressing themselves with increasing accuracy and complexity.

Conclusion

This study employed a corpus-based approach to investigate the frequency and types of errors in the writing section of the STANAG 6001 English examination among military students at the University of Defense. The primary aim was to conduct an error analysis across three proficiency levels (Level 1, Level 1+, and Level 2) in order to identify error patterns and variations. Using corpus linguistics methods, the data from the written responses of 120 participants, evenly distributed by gender and proficiency level, were analyzed. The corpus was compiled and processed through TeiTok, a corpus tool for the annotation and exploration of linguistic data. This approach enabled a detailed analysis of the distribution and frequency of error types across the three proficiency levels, providing insights into how the STANAG 6001 level descriptors reflect and inform the assessment criteria for each proficiency level.

The theoretical framework of error analysis and learner corpus research underpinned the methodology, guiding the classification and interpretation of errors.

Error analysis, a key aspect of second language acquisition research, focuses on identifying, categorizing, and analyzing the systematic deviations from standard language use made by learners. In this study, errors were categorized into key linguistic domains, including spelling, articles, suffixes, prepositions, vocabulary, auxiliaries, punctuation, pronouns, infinitives, and conjunctions, along with prefixes, with statistically insignificant frequencies across all levels. James's (2013, p. 37) classifications was employed, further dividing the above categories into errors of omission, addition, and misformation, where appropriate (e.g. missing articles, extra articles, and wrong articles, respectively).

The results revealed clear variations in error frequency across the proficiency levels, demonstrating that as learners advance in their English language proficiency, the number and types of errors they produce shift. At Level 1, participants exhibited a high frequency of errors across almost all categories, with particular difficulties in auxiliaries, pronouns and suffixes, which are essential for forming correct past and future tense constructions. Errors in these areas prevent learners from accurately narrating events in the past or projecting them into the future, which is a critical component of language use at Level 2 according to the STANAG 6001 descriptors.

While students at Level 1+ demonstrate improvement over Level 1, they continue to struggle with suffixes and auxiliaries, alongside other important error types that affect their ability to describe people, things, and events and narrate past and future events. The persistent difficulty with verb morphology and auxiliary usage at this level indicates that learners have not fully mastered the grammatical structures required for clear and accurate communication in different tenses.

Students at Level 2 demonstrate the ability to correctly use past and future tense constructions, which is a critical requirement according to the STANAG 6001 Level 2 descriptors. While they still exhibit frequent errors with articles and punctuation, these errors do not substantially impact their ability to narrate events across different time frames.

These findings contribute to the growing body of research in corpus linguistics (Paquot & Gries, 2020; Egbert et al., 2022), learner corpus research (Callies & Götz, 2015; Götz 2022), and data-driven learning (Poole, 2018; Lenko-Szymanska & Boulton, 2015) particularly in the military context, where learners are required to develop functional English language skills for both formal and operational purposes. The variation in error frequency across proficiency levels suggests that targeted pedagogical interventions could focus on addressing specific persistent error types important for achieving STANAG 6001 Level 2.

Furthermore, the use of TeiTok for corpus annotation and analysis proved to be an effective method for processing and categorizing linguistic data, providing a de-

tailed and systematic means of tracking error patterns across proficiency levels. The insights gained from this study can be applied to curriculum design and instructional practices, particularly in military educational settings.

Research Implications, Limitations, and Recommendations

The findings have several implications for language instruction, particularly in a military educational context. Firstly, the high incidence of errors in the use of auxiliaries and suffixes among lower proficiency learners suggests that targeted instruction in these areas could significantly enhance linguistic competence. Instructional strategies should include explicit teaching of rules for the formation of past, present, and future tenses with context-based drills to improve correct tense recognition.

Furthermore, the persistent errors in the use of articles and punctuation, though not considered critical in terms of communicative effectiveness for STANAG 6001 Level 2, can still be viewed as valuable opportunities for further refinement of students' language proficiency. Addressing these issues would not only enhance grammatical accuracy but also contribute to the overall precision of their written expression, thereby supporting more advanced language development.

Despite its comprehensive analysis, this study has several limitations. The sample size, although substantial, may not fully represent the diverse population of military students undertaking the STANAG 6001 examination. Moreover, the study focuses solely on written errors, thereby excluding potential insights from oral proficiency assessments. Another limitation is the lack of consideration for individual learner differences, such as prior language exposure and educational background, which could influence error patterns.

Despite its utility, error categorization in corpus linguistics and learner corpora can oversimplify the complexities of language learning. A strict focus on error types may neglect the nuances of learner intent or communicative competence, leading to an overemphasis on grammatical correctness rather than functional language use. Moreover, categorizing errors in isolation often ignores the context in which they occur, potentially overlooking the interconnectedness of multiple errors within a single utterance. This can lead to an incomplete or fragmented understanding of a learner's language development. Furthermore, relying heavily on predefined error categories might result in misinterpretations of learner strategies or innovative uses of language, particularly when nonstandard forms are employed to convey meaning in creative ways. The variability of errors across different contexts or tasks can also be lost, limiting the depth of analysis that corpus-based error studies can offer.

Future research should aim to address these limitations by including a larger and more diverse sample of learners to enhance the generalizability of the findings. Additionally, incorporating oral proficiency assessments would provide a more holistic view of learners' language abilities and error patterns. Further studies could also explore the impact of individual differences on error frequency and types, offering more personalized insights into language acquisition processes.

Moreover, longitudinal studies tracking learners' progress over time could provide valuable insights into the developmental trajectory of language proficiency and error reduction. Such studies would help identify specific instructional interventions that are most effective at different stages of language learning.

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Appendix

The following is a table of all the error types dealt with in this study, with example sentences using James's (2013, p. 37) classification framework for error types (i.e. omission, addition, and misformation) where appropriate – errors have been highlighted.

Tab. 5: *All error categories with error counts/percentages and example sentences*

Error category	Error count/ percentage	Example sentence taken from the corpus
spelling	837 / 19.08%	*Hello Martin, I am writting to as you for…*
missing article	714 / 16.28%	*…because I have not __ car…*
missing suffix	357 / 8.14%	*I will be want visit many country …*
wrong word	311 / 7.09%	*…I hope you will repair your mistakes…*
wrong preposition	259 / 5.9 %	*…, which is too much on my opinion.*
capital	221 / 5.04%	*Last week on friday I organized…*
extra punctuation	169 / 3.85%	*I'm writing to inform you , that I'm not able…*
extra suffix	152 / 3.47%	*Were I must cooking meal for people…*
extra article	127 / 2.9 %	*…we were a one week here.*
missing preposition	126 / 2.87%	*I will wait __ you tomorrow…*
wrong auxiliary	124 / 2.83%	*When he come home, he had crying.*
wrong pronoun	124 / 2.83%	*The sofa is important for my …*
missing auxiliary	119 / 2.71%	*Dear Allie, I __ writing you…*
missing pronoun	99 / 2.26%	*Tell me please if __ want to come…*
missing punctuation	94 / 2.14%	*Hey Jane I havent seen you…*
wrong suffix	79 / 1.8 %	*I statred worked in new job…*
extra auxiliary	75 / 1.71%	*…he will be have some problems…*
extra preposition	75 / 1.71%	*Can I invite to you for a lunch…*
wrong article	66 / 1.5 %	*After that we called a police…*
missing to-infinitive	53 / 1.21%	*Mrs. Black starded __ scream…*
missing word	46 / 1.05%	*I would like to __ extra lesson…*
extra word	44 / 1.00%	*There were something about 50 people.*
wrong conjunction	37 / 0.84%	*The problem what we had…*
extra pronoun	31 / 0.71%	*I want you to inform you that…*
wrong punctuation	20 / 0.46%	*…problems at our senior officer 's meeting…*
extra to-infinitive	11 / 0.25%	*…I can not to go to work in London…*
missing conjunction	9 / 0.21%	*Do you know __ it is possible?*
wrong to-infinitive	4 / 0.09%	*…they have to request for Fast respond unit for help them*
wrong prefix	3 / 0.07%	*I was unsatisfied with your service*

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