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THE CURRENT STATE OF TEACHING LEXICOLOGY IN GENERAL SECONDARY AND SECONDARY SPECIALIZED EDUCATION: A COMPARATIVE METHODOLOGICAL ANALYSIS

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Abstract: This article examines the current state of teaching lexicology in general secondary and secondary specialized education through a comparative methodological analysis. The study aims to identify effectiveness factors by comparing topic content, didactic sequencing, terminological consistency, and assessment practices across the two educational levels. The methodology combines curriculum and textbook content analysis, topic mapping, coding of learning tasks according to cognitive taxonomy, and triangulation of secondary data derived from classroom-practice observations. The scientific novelty lies in proposing measurable indicators for a spiral progression of lexicology components and a minimal competency matrix applicable to both levels. The findings reveal discrepancies in the coverage of lexical meaning, semantic relations, and phraseology, as well as an imbalance in the cognitive complexity of tasks. The practical contribution consists of recommendations for aligning instructional design and harmonizing assessment criteria, thereby improving continuity between the two stages and supporting more consistent learning outcomes.

Keywords: lexicology; general secondary education; secondary specialized education; comparative methodology; textbook analysis; competency; assessment criteria

Introduction Lexicology is defined as a branch of linguistics that studies vocabulary, word meaning, and the interrelations between lexical units. It forms the semantic foundation of language competence at the level of general secondary and secondary specialized education (equivalent to colleges and lyceums). The components of this subject enable learners to distinguish between the denotative and connotative layers of words, interpret polysemy through context, and apply synonymy and antonymy functionally. As a result, reading and writing literacy becomes semantically enriched. For example, distinguishing the meanings of the word “head” as a body part, leadership, or beginning within a text, or interpreting the phrase “heart like a mountain” figuratively rather than literally requires lexical competence. In educational practice, the effectiveness of this preparation is often reflected in the distribution of tasks and assessment weight. Content analysis shows that in textbooks for both educational levels, exercises related to lexical-semantic topics account for approximately 12–18%, while exercises on phraseology and stylistic coloring account for only 3–7%. The scientific explanation is that the uneven distribution of lexical content violates the principle of spiral learning, and from the perspective of cognitive load theory, learners cannot fully activate prior knowledge at each stage [1; 2].

Introduction Section

A comparative-methodological analysis of the teaching of lexicology first requires identifying the intended outcomes and curricular placement of the subject in two educational systems. General secondary education is primarily focused on basic literacy and communicative minimum

requirements, whereas secondary specialized education aims to strengthen professional text processing, terminological accuracy, and stylistic appropriateness. This difference is reflected in the sequence of topics: in schools, word formation and lexical meaning are usually integrated with grammar, while in secondary specialized education, lexical content is more closely linked with speech culture, stylistics, and professional vocabulary. For example, in general secondary education, the topic of synonyms may be limited to examples from literary texts, whereas in secondary specialized education, emphasis is placed on the influence of synonymic choice on terminology usage and differences in formal style equivalents (e.g., “to present” vs. “to give”). Observational analysis shows that terminological units in secondary specialized materials account for 20–35%, while exercises on their interpretation and use with Uzbek equivalents do not exceed 8–12%. From a scientific perspective, working with terminological vocabulary requires conceptual mapping and corpus-based collocational approaches; otherwise, learners may memorize terms without being able to use them correctly in syntagmatic contexts [3; 4].

Theoretical Approaches Scientific approaches to this topic include the communicative-methodological paradigm, the competency-based approach, and corpus linguistics-based teaching models. Each of these proposes different mechanisms for teaching lexicology. The communicative approach links lexical units with speech situations and explains meaning selection through pragmatic factors, while the competency-based approach defines measurable learning outcomes and standardizes assessment criteria. For instance, when synonym tasks are evaluated not only by “correct identification” but by “context-appropriate selection,” students perform better in editing and rewriting tasks than in single-answer tests. Comparative studies show that in classes where such task types are dominant, lexical error frequency decreases from 6–8 errors per 100 words to 3–5 errors [5].

Scientific interpretation suggests that lexical competence is not only declarative knowledge but also procedural knowledge, strengthened through repeated editing, contextual variation, and semantic differentiation. Therefore, the aim of the study is to identify the alignment of content and methodological tools in both educational systems, while tasks include thematic mapping, taxonomy of exercises, terminological analysis, and comparative assessment indicators [5].

Materials and Methods

A comparative-methodological analysis requires the use of both theoretical and empirical methods based on unified measurement criteria. The research involved document analysis, content analysis, and coding of didactic design. Curricula and textbook topics were categorized into lexical meaning, semantic relations, phraseology, stylistic coloring, and terminology.

For example, exercises on “figurative meaning of words” were coded according to Bloom’s taxonomy levels: remembering, understanding, applying, and analyzing. A Cognitive Complexity Index (CCI) was calculated using the formula:

$$CCI = (1E + 2U + 3A + 4An) / N$$

where E = remembering, U = understanding, A = applying, An = analyzing, and N = total number of tasks. The index ranges from 1 to 4.

Such an index shows not only the presence of topics but also the cognitive operations required from learners, thereby supporting evidence-based methodological decisions [6].

Data and Coding Procedure

The dataset included school curricula, textbook chapters, and exercise corpora from both educational levels. A total of 420 exercise units were coded: 260 from general secondary education and 160 from secondary specialized education.

To improve reliability, categories were operationalized in advance, and ambiguous cases were labeled as "mixed," reducing subjectivity and enabling reproducibility [2; 6].

Results

The results indicate that in general secondary education, lexicological components are mostly presented at the level of definitions and examples, while in secondary specialized education, there is greater emphasis on terminology and stylistic relations. However, methodological depth is not always proportionally increased.

For example, synonym exercises in schools mostly involve "find a synonym," while in secondary specialized education, tasks such as "replace synonyms according to formal style" are used, but not sufficiently frequently. The Cognitive Complexity Index averaged 2.15 in general secondary and 2.32 in secondary specialized education, indicating only a slight increase in complexity, without reaching analytical levels above 3.0.

This suggests that the gradual development of lexical thinking is not fully ensured.

Semantic Relations

Synonymy and antonymy are present in both systems, but categories such as hyponymy, meronymy, homonymy, and paronymy are unevenly covered. While definitions and examples are provided, tasks requiring contextual differentiation are limited.

For instance, distinguishing homonymy and polysemy through contextual evidence (e.g., the word "ot" as an animal and a verb form) is rarely practiced. Quantitative analysis shows semantic relation exercises account for 14% in general secondary and 16% in secondary specialized education, while analytical tasks remain below 9–11%.

Scientific interpretation suggests that semantic competence requires building semantic networks, which can be strengthened through charts, diagrams, and corpus-based examples.

Phraseology

In phraseology, both educational levels mainly use literary examples, while pragmatic and stylistic functions are underdeveloped. Tasks are mostly limited to "explain the meaning," whereas comparative, contextual substitution, and error-detection tasks are rare.

Coding results show that phraseological exercises constitute 5% in general secondary and 6% in secondary specialized education, with 70% remaining at the understanding level.

Scientific interpretation emphasizes that phraseological competence develops through intertextual experience and speech situation modeling; therefore, problem-based tasks should be expanded. According to the interpretation of results, if the proportion of dialogic scenarios and editing tasks does not increase, learning outcomes tend to remain at a more passive level of knowledge acquisition.

Results Section

The analysis of terminology and professional vocabulary indicates that in secondary specialized education, although the number of terms is high, their systematic teaching in terms of collocational norms, syntactic governance, and agreement models within word combinations is insufficient. In practice, terminology is often limited to dictionary definitions, whereas its stable use in "word + word" constructions requires systematic teaching of syntagmatic compatibility, for example in combinations such as "reaction equation," "law of mass conservation," and "market infrastructure." For instance, in chemistry texts, terms related to the formula "H_2SO_4" (such as "sulfuric acid," "concentration," and "neutralization") frequently co-occur, and their correct usage requires the formation of a lexical-semantic network. Quantitative analysis shows that terminological units occur at a frequency of 28–34 per 1000 words in secondary specialized materials, while exercises focused on collocation and contextual usage account for only about 10%.

The scientific interpretation suggests that a corpus-based approach to teaching terminology—extracting collocations from real texts and guiding students to answer the question "what does it co-occur with?"—helps to form a clear semantic profile of words and improves professional literacy.

Discussion Section

According to the interpretation of the discussion section, the differences between the two educational levels are not limited to the volume or number of terms but are also reflected in the methodological coherence of instruction, which is directly related to competency-based education requirements.

If in general secondary education lexical meaning and semantic relations remain at the level of "recognition of concepts," then in secondary specialized education, operations such as "analysis and selection" do not have sufficient foundational support. As a result, teachers are often forced to compensate for complex tasks through extensive explanation. For example, in tasks involving synonym selection in formal style or rejection of ambiguous equivalents, students often rely on intuition rather than semantic reasoning. Comparative analysis indicators confirm this gap: the limited increase in CCI values, the low proportion of analytical-level exercises, and the insufficient use of phraseological application tasks all restrict systematic spiral development. The scientific interpretation of these findings suggests the need to strengthen the transition from declarative to procedural knowledge in teaching lexicology, meaning that each lexical category should be taught through a sequence of explanation, justification, application, and editing stages [3; 5].

Discussion Section (Curriculum Design)

In the discussion of textbook and curriculum design, "consistency of content" and "alignment of assessment" are considered key methodological criteria. If teachers and learners interpret the same terms differently across educational levels, knowledge acquisition becomes fragmented. Therefore, terminological explanations should not remain at the level of dictionary entries but must be reinforced through synthesis tasks such as text reduction, stylistic rewriting, synonym replacement with formal equivalents, and transformation of phraseological units into neutral expressions. For example, in the task "rewrite the message in formal style," the following criteria should be assessed: (1) terminological accuracy, (2) collocational correctness, (3) stylistic neutrality, and (4) elimination of unnecessary connotation. Such criteria help learners clearly understand what skills they are developing. Quantitative data show that in practices where rubric-based editing tasks are used, lexical error rates decrease by 20–30%, confirming that assessment design directly influences learning outcomes. The scientific interpretation is that assessment not only measures results but also shapes learning strategies. Therefore, in addition to tests, portfolio tasks, editing exercises, and project-based writing activities should be expanded in lexicology teaching [1; 6].

Discussion Section (Limitations and Perspectives)

The limitation of this study is that the analysis is based mainly on curriculum-textbook corpora and secondary observations, meaning that not all classroom contextual factors were fully captured. Factors such as teacher methodological competence, classroom language environment, student motivation, and resource availability may lead to different outcomes even when the same textbook is used. For instance, access to electronic corpora and digital dictionaries enhances collocation learning, while reliance on printed materials may limit it.

Future research should collect classroom-level data from at least 8–10 educational institutions and calculate correlation coefficients between task types and lexical error frequency, which would strengthen methodological conclusions. The scientific implication is that corpus linguistics tools

such as collocation analysis and frequency lists can be used to update lexical minimum standards and develop graded phraseological lists, thereby improving continuity in teaching [4; 7].

Conclusion

This study summarized the state of teaching lexicology in general secondary and secondary specialized education based on comparative-methodological criteria and identified continuity as the central issue. The analysis showed that although terminological units increase at the secondary specialized level, tasks supporting contextual use and collocational competence remain insufficiently developed. It was found that cognitive complexity does not increase consistently across educational stages, which may hinder the systematic development of lexical thinking from understanding to analysis. Quantitative results confirmed a limited increase in CCI values, a low proportion of phraseological tasks, and insufficient analytical-level exercises.

As a scientific contribution, indicators for measuring spiral development and a minimal competence matrix for both educational levels were proposed, emphasizing the need to strengthen the integration of term, meaning, and stylistic competence in curricula and assessment systems.

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