

UDC 37.026.9:811.111

IRSTI 14.35.09

<https://doi.org/10.48371/PEDS.2026.81.2.029>

**DIFFERENTIATED APPROACH IN ENGLISH LANGUAGE
TEACHING THROUGH NUMERAL-BASED PHRASEOLOGICAL
UNITS: A LEARNING ANALYTICS PERSPECTIVE**

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Abstract. This paper examines numeral-based phraseological units in Kazakh, English and Russian literary texts from linguistic, cognitive and pedagogical perspectives. The study aims to identify the semantic, cultural and interpretative features of numeral-based phraseological units and to explore their pedagogical potential within the framework of differentiated instruction in English language teaching (ELT). The study employs the methods of system and comparative analysis, synthesis, deduction, classification and analysis of scientific publications. The study provides a classification of numeral-based phraseological units across the three languages based on three parameters: semantic transparency, cultural load and interpretative complexity. The findings demonstrate that phraseological units differ significantly in their symbolic meanings, cultural specificity and interpretative complexity across the three languages. Kazakh phraseology reflects cultural and ancestral symbolism, English phraseology is characterized by communicative pragmatism and semantic transparency, while Russian phraseology demonstrates metaphorical expressiveness and emotional coloring. The scientific significance of the research lies in its interdisciplinary and comparative approach to the analysis of numerical symbolism within the framework of differentiated ELT. The practical value of the study consists in the possibility of adapting phraseological material to learners' language proficiency and intercultural competence, thereby improving vocabulary development, interpretative skills and intercultural communication during classroom activities. The proposed classification framework may serve as a methodological basis for developing culturally adaptive and differentiated teaching materials within a learning analytics approach to multilingual ELT environments.

Keywords: numeral-based phraseological units, numerical symbolism, cognitive readiness, intercultural communication, differentiated instruction, English language teaching (ELT), intercultural competence, language proficiency, learning analytics

Introduction

In linguistics there are various opportunities to develop vocabulary. In particular, vocabulary development is closely connected with the study of phraseological units, since expressions and idioms represent an essential part of linguistic and cultural competence. According to Yusufjanova (2021),

phraseological units reflect national-cultural specificity and present considerable interpretative and translational challenges due to their figurative meanings, semantic complexity and contextual dependence [1]. In multilingual educational context, the analysis of phraseological units contributes not only to the development of lexical competence, but to intercultural awareness and personalized language teaching as well.

Although, words are generally considered as the main carriers of meaning, the semantic interpretation of many lexical units depends on their contextual and phraseological combinations. Therefore, units of meaning are often determined not by individual words, but by fixed expressions and phraseological structures. In linguistic studies, phraseological units are commonly classified according to structural-semantic, grammatical and functional-stylistic characteristics [2]. Idioms are often divided into figurative idioms with direct and figurative meanings, and pure idioms, highly fixed and opaque word combinations that are used only in the figurative sense [3].

Despite the growing interest in linguistic and pedagogical research in the field of phraseological instruction, there remains a research gap in the development of methodology that addresses how phraseological units categorized by their semantic complexity can be integrated into differentiated instruction within learner-centered ELT environments. Previous studies have examined such issue from linguistic, cultural or translation perspectives, while their pedagogical potential for differentiated instruction remains insufficiently explored. This study aims to analyze numeral-based phraseological units in Kazakh, English and Russian literary discourse from linguistic, cognitive and pedagogical perspectives and to develop a pedagogically oriented framework for differentiated instruction in ELT. According to Leppan et al. (2018), differentiated instruction refers to a learner-centered approach that “tailors pedagogy towards the diverse learners’ needs sharing similar characteristics” [4, p.18]. At the same time, the authors argue that “existing learning analytics models focus predominantly on technical data collection and analysis rather than pedagogical validation and learner-centered instructional goals” [4, p. 39]. Thus, this limitation emphasizes the need for instructional framework aligning learner diversity with differentiated content, learning objectives and classroom activities.

The present research focuses on the classification of phraseological units according to semantic transparency, cultural load and interpretative complexity, as well as on the role of numerical symbolism in supporting differentiated approach and adaptive material selection in ELT. From a pedagogical perspective, the study aims to explore the potential of numeral-based phraseological units for differentiated approach in ELT, as well as for adaptive instruction and learning analytics. Consequently, the proposed framework should be regarded as a theoretical model that offers practical directions for instructional design while requiring further empirical research through classroom observation, experimental teaching, learner assessment and surveys.

The results obtained have significant practical implications for this approach, since the systematization of phraseological units with numerals by

language, frequency, semantic transparency and degree of idiomaticity allows the teaching material to be adapted to diverse levels of language proficiency among students. The use of this approach in classroom practice contributes to the conscious formation of vocabulary, the development of students' interpretative and intercultural competencies, and supports the implementation of the principles of adaptive instruction in ELT through the variable selection and analytical processing of phraseological material.

The scientific novelty of the present study lies in the integration of linguistic analysis and ELT methodology through a differentiated instructional framework based on three key parameters: semantic transparency (the degree to which meaning can be derived from its constituent elements), cultural load (the extent of cultural knowledge reflected in the unit) and interpretative complexity (the level of cognitive processing required for comprehension). While previous studies have focused on general methods of phraseological instruction, the present research is based on an interdisciplinary (linguistics and pedagogy) approach and offers an instructional model for classifying phraseological units of numerical code in literary texts across three languages (Kazakh, Russian, and English) by several characteristics for learner-centered and differentiated instructional practices in ELT: proficiency level, learning objectives and learning activities. Moreover, this framework contributes to the methodological development of differentiated ELT and supports the integration of learning analytics into pedagogical decision-making processes.

Furthermore, the study demonstrates the correlation between numerical symbolism and differentiated approach, emphasizing the teachers' role in adapting the learning material according to the learner's proficiency levels. The results also contribute to the emerging field of data-driven ELT, suggesting the potential integration of phraseological datasets into learning analytics systems for informed decision-making.

Materials and Methods

The present study employs a theoretical and comparative approach to the analysis of numeral-based phraseological units in multilingual (Kazakh, English and Russian) literary discourse from linguistic, cognitive and pedagogical perspectives. The research focuses on semantic, cultural and interpretative characteristics of numeral-based phraseological units and examines their pedagogical potential within the framework of differentiated approach in ELT. The methodological framework of the study combines elements of cognitive linguistics, phraseology, intercultural communication and differentiated instruction. The main methods in this study were system and comparative analyses; also in the process of writing this work the following cognition methods were used: method of classification, method of synthesis and analysis of scientific publications.

System analysis was used to examine phraseological units as interconnected linguistic and cultural structures reflecting symbolic and cognitive patterns within different language systems. In order to distinguish the general and opposite in

the objects of study for the subsequent classification and typology the method of comparison was used. With its help, a number of characteristic features were identified that were used to compare the notional interpretation of numerical elements as parts of phraseological units in the Kazakh, Russian and English language groups. The synthesis method helps scientists to assemble the facts and ideas separated by analysis into a whole, thus restoring the integrity of the object under study. The study of literary sources allowed to draw conclusions about specific historical prerequisites of formation of phraseological units and idioms as well as to identify the similarities and differences in the semantic function, symbolic meanings and interpretative complexity.

By means of the classification method, the information obtained in the course of the study was systematized and organized into groups. The received groups of the phraseological units with numerals, systematized according to the meaning are presented in Tables 1-3. The phraseological units included in Tables 1-3 were selected according to the following criteria: (1) the presence of a numeral-based structures; (2) frequency of use in literary texts; (3) cultural and semantic relevance; (4) pedagogical value for differentiated instruction in ELT.

Each table represents one of the three linguistic groups examined in the study. The study also includes a theoretical analysis of recent scientific publications. Researchers and scholars in the field of linguistics, literary studies, cultural studies and history often think and study issues related to the process of development of phraseological units, the influence of phraseology on fiction, their history and prospects for future research. In recent years, scholars have studied the problems and methods of improving the development and support of modern innovative methods of studying questions of linguistics. Moreover, the analysis of literary texts therefore enables a deeper examination of numerical symbolism and culturally specific conceptual models reflected in phraseological systems across different languages.

The analysis includes three parameters proposed in the study: semantic transparency, cultural load and interpretative complexity. From a pedagogical perspective, the study applies the principles of differentiated instruction and learning analytics to the classification and adaptive selection of phraseological materials. The proposed framework allows phraseological units to be grouped according to learners' proficiency levels, interpretative abilities and intercultural competence. The proficiency levels are based on increasing complexity dimensions: (1) phraseological units characterized by high semantic transparency and low cultural load – for A2-B1 levels; (2) phraseological units characterized by moderate cultural load and interpretative complexity - for B1-B2 levels; (3) phraseological units with high cultural load and low semantic transparency characterized by intercultural analysis and critical interpretation – for B2-C1 levels.

In this context, learning analytics is viewed as data-informed process for monitoring and interpreting learner performance indicators (for example, vocabulary recognition accuracy, contextual interpretation scores, intercultural analysis outcomes, and reflective tasks' rates) in order to support evidence-

based pedagogical decisions. In addition, learning assignments were prepared according to differentiated instruction principles and aligned with learners' cognitive readiness.

Results and Discussion

Phraseology as a branch of linguistics has two closely related definitions, the set of which indicates the vastness of the involvement of phraseology in the historical and cultural world discourse. The definitions are as follows: phraseology is a branch of linguistics which studies the phraseological system of a language in its modern state and historical development; phraseology is a set of phraseology in a particular language. Any linguistic unit has not only a communicative function, but is also a means of expression for the nation, ethnos, history of the people, the way of conveying everyday life, national and cultural values. The phraseological resources of each language reflect socio-historical events, moral and spiritual-cultural norms, mental and psychological states, religious beliefs, national traditions and customs of peoples. Numbers, as an integral part of language and an important element of human communication, also often become part of phraseological units in different languages. In the following Table 1-3 you can see different approaches to the meaning and use of phraseological units with numerals in different languages.

Table 1 illustrates Kazakh numeral-based phraseological units according to their semantic relevance, cultural value and their active usage in fiction.

Table 1. Phraseological units of the Kazakh language using quantitative constructions

Phraseological unit	Meaning	Example of use in fiction or literary text
Бір есептен, бір жағынан	On the one hand	Бір есептен бұл ойының іс болып қалуы да қисынды (С.Шәкібаев, Үлкен Түркістан). Бектен бір есептен Елдес сылтауын да жөн көрді. Жас адамға көп демалыс қажет бола бермесе керек (А.Байтанаев, Қансонар). Тезегін қымтап, ... қазық қағып үйін бастырып, әйелдер шулап, бір жағынан балалар жылап, ауыл әбігершілікке ұшырады (С.Әбішев, Аспан сыры). Бір жағынан апамды жеңге тұтып еркелесе, екінші жағынан мен ұқпайтын тағы бірдеңені жұмбақтай сөйлеп, екіленіп отыр (М.Дүзенов, Ақәже).
Бес саусақтай	Different as five fingers	Бессаусақтай болайық. Ынтымақ ерге ылайық Жаңа өмір өстіп құрайық (Ө.Тұрманжанов, Менің кітаб.).
Жеті ата	Seven generations	Алаштан азап көп көрдім, Өлген соң батыр қапыда. Әлді болған адам жоқ, Өзім түгіл жұрағат, Жеті атадан затымда (О. Шипин). Жеті атасын білмеген обал дейді, Арғы атамды деп айтам Әрмия-ды (Шал ақын, Өленд.). Жеткізіп жеті атаңа билігінді Жаратқан тағдыр артық әуел бастан (Базар жырау, Шығ.). Құрысын, құрғыр өмір, бейнеттің жеті атасын көрді ғой, бұл жұдырықтай бас (Ғ.Мүсірепов, Танд. шығ.).
Тоғыз қырлы адам	Multi-talented person	

Жүз құбылды	Changeable person	Әлденеше өзгерді. Жүріс-тұрысына, бет құбылысына, қол сермесіне көз ілеспейді, бір минутта жүз құбылады (Ж.Аймауытов, Шығ.). Жаз жетіп, қарлар кетті, сулар ағып, Күн де тұр жарқ-жұрқ етіп нұрын жағып. Құлпырып, жүз құбылып жердің жүзі, Қуанбас жан-жануар бұған нағып (С.Торайғыров, Таңд. шығ.). Шырт түкіріп, шынтақтап, Жүз құбылып, қылтақтап. Сұлуынай, шіркіннің Дегізбекші жұрт мақтап (Ш.Құдайбердиев, Шығ.).
Жүзі жылы	Good-natured	Иванның келіншегі мархабатты жан еді: жүзі жылы, тілі тәтті (Д.Әбілев, Шығ.). Ол тілі майда, жүзі жылы, сақал-мұрты жоқ, көсе жігіт екен (С.Шәріпов, Таңд.).

Source: Sozdikqor [5].

The analysis of Table 1 indicates that Kazakh language is rich in numerical-based phraseological expressions due to the traditional worldview, social relations and moral value. Almost all Kazakh expressions are context-dependent and require cultural and cognitive interpretation for a better understanding of their meaning. Numerals such as seven (“жеті”) demonstrate a high degree of ethnocultural markedness, reflecting genealogical consciousness and collective identity formation. For instance, in the phraseological unit «жеті ата», this numerical component functions as a cultural code depicting a conceptual model of ethnic memory rather than arithmetic meaning. Therefore, the numerical code functions as carrier of a national and cultural information, i.e. provides empirical support for the cognitive linguistic premise that language, thought and cultural experience are closely linked. Moreover, it is defined that most Kazakh phraseological units are essential for developing intercultural competence in language teaching due to their cultural load and low semantic transparency.

For this purpose, personalized approach can become an effective method for advanced learners as they demand not only linguistic competence but also intercultural awareness. This instructional design allows teachers to adapt their learning materials to the students’ needs and intercultural competences, thus ensuring both comprehension and cognitive demand. From the perspective of learning analytics, the proposed classification of numeral-based phraseological units according to semantic transparency, cultural load and interpretative complexity may function as an analytical framework for differentiated ELT. These parameters can support data-informed instructional decisions by enabling teachers to adapt phraseological materials to learners’ proficiency levels, interpretative abilities and intercultural competence. In multilingual educational environments, such classification may also contribute to adaptive content sequencing and personalized vocabulary development, thereby increasing the effectiveness of learner-centered instruction. In particular, phraseological units characterized by high cultural load and low semantic transparency demonstrate greater interpretative complexity and therefore require scaffolding strategies within differentiated ELT. Moreover, the proposed framework may therefore

support adaptive and differentiated ELT practices through pedagogically informed material selection. Table 2 demonstrates English numeral-based phraseological units characterized by relatively high semantic transparency and practical communication value.

Table 2. Phraseological units of the English language using quantitative constructions

Phraseological unit	Meaning	Example of use in fiction or literary text
Go from zero to hero	Get success	Yesterday he grabbed what was left, and if England save the follow-on he will go to India as a hero – a hero from zero (Fay, S., Independent).
All in one breath	Speak or act quickly	She said it all in one breath, so I couldn't even catch what company her job interview is with.
Put in your two cents	Intervene in conversation	He always insists on putting in his two cents whether we want his opinion or not!
Two's company, three's a crowd	Third wheel	Thanks for inviting me to hang out with you and Lucy, but I don't want to get in the way. As they say, two is company, three is a crowd.
To the four winds	On all four sides	Our family has been scattered to the four winds now that all of our kids are in college in different states.
To give five	Greetings	Hey, we won! Give me five!
In seventh heaven	Happiness	Ann was really in seventh heaven when she got a car of her own. I'd be in seventh heaven if I had a million dollars.
Have nine lives	Be lucky in dangerous situations	I can't believe he survived after his bungee cord snapped! He must have nine lives or something.
Nine times out of ten	Almost always	Nine times out of ten people will choose coffee rather than tea.

Source: *The Free Dictionary* [6].

In comparison with English phraseology of Table 2, numerals are mostly used in conversational contexts for pragmatic reasons and their meanings are often less culturally bound (e.g., “give me five”, “two’s company, three’s a crowd”). The study shows that many of these phraseological units express evaluation, emphasis, or interaction management in different discourses. From the cognitive-linguistic perspective, this may indicate that numerical components in English phraseology appear to be less culturally and symbolically meaningful than in the Kazakh language. Consequently, teachers can effectively apply them in differentiated instruction for lower and intermediate proficiency levels, providing learners with immediately applicable and communicatively relevant language material. From the perspective of learning analytics, English numeral-based phraseological units relatively high semantic transparency may serve as accessible teaching model for assessing students’ vocabulary growth and communicative competence. Their lower interpretative complexity allows teachers to sequence phraseological content progressively and adapt learning tasks according to students’ proficiency level in differentiated ELT environments.

Table 3 presents Russian phraseological units with numeral components characterized by their figurative expressiveness and emotional coloring.

Table 3. Phraseological units of the Russian language using quantitative constructions

Phraseological unit	Meaning	Example of use in fiction or literary text
Ноль без палочки, полный ноль	A person who is considered by another or others to be of no value, incapable	Знаешь, Светланочка, он до того весёлый, что весь дом отдыха его обожает, а затейник наш – просто ноль без палочки перед ним, даже злится из-за этого на Васю (А. Рекемчук. Время летних отпусков).
Первый встречный	Any person without discrimination	Первый встречный показался – и отец, и все забыто, и бежит кверху, перечесывается – хвостом виляет, и сама на себя не похожа. Рада бросить отца! (Л. Толстой. Война и мир. 3, 5.)
Два сапога пара	To suit one another, to deserve each other	Жили мы с дядей Кондратием почитай тринадцать лет, жили: два сапога – одна пара! как следует по-соседски жили. (Д. Григорович. Рыбаки. 2, 15).
Плакать в три ручья	To cry	Часто в ночь одинокую Девка часу не спала, А как жала рожь высокую, Слёзы в три ручья лила! (Н. Некрасов. Коробейники).
За тридевять земель	To go or to drive far way	Когда Володе исполнилось полтора года, мы с Геннадием разошлись. Он уехал за тридевять земель, на Дальний Восток. (А. Алексин, Третий в пятом ряду).
На все четыре стороны	Let go	Певцов отпустил мерзавца на все четыре стороны, но отправил следить за ним двоих жандармских филёров, одетых в партикулярное платье. (Л. Юзефович, Костюм Арлекина).
Быть на седьмом небе	Bliss, joy, happiness	Стасик радовался, когда дядя Ваня прокатил его <...> по городу. А когда он однажды взял с собой мальчика в дальний рейс, в Буковину, тот был на седьмом небе. (А. Авдеенко, Дунайские ночи).
Девятый вал	Imminent danger	Пора: перо покоя просит; Я девять песен написал; На берег радостный выносит Мою ладью девятый вал. (А.С. Пушкин. Евгений Онегин. 9. Путешествие Онегина).

Sources: V. Plekhanov [7]; S. Sadigova [8]; Academic [9].

From Table 3 we observe that Russian phraseological units are represented in various idiomatic expressions and often reflect both cultural and linguistic characteristics in Russian discourses. While some expressions are relatively accessible (“два сапога пара”), others rely heavily on metaphorical exaggeration and historical-cultural context-dependent semantics (“за тридевять земель”, “девятый вал”). From the cognitive-semantic perspective, such phraseological units are defined as complex conceptual metaphors that require a high level of interpretative competence. In the pedagogical aspect, this allows teachers to apply them as a material for developing analytical reading, cultural interpretation, and critical thinking in learners. In other words, the Russian numerical phraseology can be viewed as a valuable resource for differentiated instruction, as it allows

teachers to select materials with varying degrees of difficulty and figurative complexity depending on learners' proficiency levels.

Within a learning analytics framework, Russian numeral-based phraseological units may be used to evaluate learner's interpretative and intercultural competence due to their high metaphorical and cognitive complexity. Such phraseological material may support adaptive scaffolding strategies and differentiated task design aimed at developing analytical reading and critical thinking skills in multilingual ELT contexts.

The comparative analysis demonstrates that the same numerals in various languages can be differently interpreted based on conceptual and cultural models. Such differences reflect specific cognitive and cultural patterns embedded within each language system. While the Kazakh number «жети» is deeply rooted in ancestral memory and sacred continuity, its Russian and English counterparts («быть на седьмом небе», «to be in seventh heaven») are primarily associated with emotional and symbolic experiences. Furthermore, in English discourse, the numerical component often performs a more pragmatic or colloquial role within idiomatic expressions. This pattern indicates that numerical symbolism in phraseology is viewed as a culturally determined cognitive system. A closer examination of tables demonstrates both cross-linguistic similarities and cultural frameworks regarding use of numerical phraseological units. Therefore, the study of phraseological units with numerals requires a cognitive-discursive approach as well as a lexical-semantic one. Thus, the tables provide evidence that numerical symbolism can be viewed as both a linguistic device and a culturally embedded cognitive model, teachers can effectively differentiate ELT instruction, tailoring practical assignments to diverse proficiency levels to foster both vocabulary growth and interpretive competence.

To address the methodological dimension of differentiated instruction, the present study offers a pedagogically-oriented framework that demonstrates the differentiated ELT model for numeral-based phraseological units. The table below demonstrates the practical implementation model allowing tutors to align assignments according to indicated parameters of the study, thus suggesting what learning activities with specific learning objectives can be used for better understanding the numeral-based phraseological units. This classification may enable teachers to scaffold learning processes and develop learners' skills through progressively complex phraseological tasks in multilingual learning environments.

Table 4. Differentiated ELT model for numeral-based phraseological units

Level	Characteristics	Examples	Classroom activities	Learning objectives
A2-B1	High semantic transparency, low cultural load	Give me five. Nine times out of ten.	Matching. Filling the gaps. Role-play dialogues. Flashcards.	Develop vocabulary recognition and basic communicative competence
B1-B2	Moderate cultural load, moderate interpretative complexity	Two's company, three's a crowd. To the four winds. In seventh heaven.	Sentence completion. Context interpretation / discussion. Comparative analysis. Role-play dialogues.	Improve contextual understanding and phraseological usage in communication

B2-C1	High cultural load, high interpretative complexity, high symbolic density, low semantic transparency.	Жеті ата. Девятый вал. За тридцать земель	Discourse analysis. Writing essays. Project-based learning / presentation. Case study. Corpus-based research	Develop critical thinking, intercultural awareness and interpretation skills
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Thus, Table 4 represents an instructional strategy for differentiation that allows teachers to select learning materials with numeral-based phraseological units and apply them in classroom activities. This framework ensures that the complexity of numeral-based phraseological units corresponds to learning objectives. For instance, at the A2-B1 level, learners may be introduced to semantically transparent phraseological units such as *give me five or nine times out of ten*. At this stage, students develop their vocabulary and basic communicative skills by guided practice such as matching the words or word combinations, filling the gaps, using flashcards or simple dialogues.

At the B1-B2 level, classroom activities are extended due to the context oriented characteristics, reflected in moderate cultural load and interpretative complexity of the phraseological units such as *two's company, three's a crowd, to the four winds or in seventh heaven*. At this stage, students can improve contextual understanding of phraseological units in authentic communicative contexts as well as improve their writing skills through more analytical and context-based activities. For instance, sentence completion exercises boost reading comprehension, whereas context interpretation tasks develop pragmatic competence and inferential thinking. Comparative analysis enables students to examine similarities and differences between phraseological units across languages for developing interpretative and cross-cultural competences. Finally, role-play dialogues and discussion can be actively used for developing fluency, as idiomatic expressions allow students to enhance communicative competence and cultural awareness.

At the B2-C1 level, learners may examine phraseological units of high interpretative complexity and symbolic density, but low semantic transparency such as *жеті ата, девятый вал or за тридцать земель* in discourse analysis for developing both writing and speaking skills as well as intercultural and interpretative competence. As these idiomatic expressions require cognitive interpretation, students can develop their critical thinking and intercultural awareness by writing essays or presentations on discussing cultural values or comparing symbolic meanings. For Kopeev et al. (2024), the effective instruction requires the adaptation of learning materials to learners' cognitive readiness [10]. Moreover, learning activities may include corpus based research, case-study or project-based learning, therefore encouraging students for improving cultural interpretation, research skills and interpretative competence, thus enabling differentiated strategies in ELT.

This framework may assist teachers in selecting instructional materials and design personalized learning pathways in multilingual ELT environments. For instance, to improve communicative competence A2-B1 learners may do lexical tasks of and role-play, while B2-C1 students may learn phraseological units

of moderate cultural load and interpretative complexity through discussions, context interpretation or role-play dialogues. At B2-C1 level, culturally specific and rich idiomatic expression but low in semantic transparency may be instructed through complicated learning activities (corpus-based research, projects, case-study, etc.). As a result, the pedagogical value of the differentiated ELT model for numeral-based phraseological units is realized through learner-centered ELT methodology and the achievement of differentiated learning objectives in multilingual educational contexts. Such differentiation may effectively develop learning skills according to proficiency level of students. Moreover, the proposed framework is aligned with Tomlinson's (2014) principles of differentiated instruction, emphasizing three curricular elements: content, process and product [11]. Accordingly, content includes numeral-based phraseological units with classified parameters, while classroom activities represent the learning process, and learning outcomes (role-play dialogue, oral presentation, comparative essay, intercultural reflection, project report, etc.) serve as product within the proposed framework.

While Tomlinson (2014) emphasizes the adaptation of content, process and product according to learners' educational needs, Leppan's et al. (2018) research focuses on a learning analytics-informed approach to differentiated instruction [11, 4]. However, both studies do not address the pedagogical potential of phraseology as a criterion for differentiated instruction in ELT. Moreover, this approach has the potential to enhance learning analytics by embedding qualitative linguistic and cognitive parameters into adaptive learning systems through the analysis of literary texts. Consequently, literary narratives are defined as data-rich pedagogical resources that ensure student-focused ELT practices. Within the proposed framework, learning analytics may be viewed as a mechanism for interpreting learner performance indicators, such as vocabulary recognition accuracy, contextual interpretation scores, intercultural analysis outcomes, and reflective tasks' rates. Thus, these indicators may provide teachers a basis for pedagogical decision-making regarding planning and designing the lesson (material selection, scaffolding information, classroom activities differentiation.)

Numerical symbolism plays an important role in the formation of phraseological meaning. Since ancient times, Symbolists have given numbers a qualitative sign, unlike mathematicians who only analyze the quantitative properties of numbers and establish relationships between them. Although almost every number is symbolic, the numbers three, seven and nine are particularly important for the cultures considered. It is said that the numbers that play the most important role in rituals and customs, as well as in folklore texts (tales, stories, poems, riddles) are three, seven and nine. For instance, the number three is commonly associated with completeness and harmony, seven symbolizes perfection, spirituality and good fortune, while nine is often connected with wisdom, sacred order and cultural continuity [12]. As demonstrated in Tables 1-3, these symbolic meanings are reflected in numeral-based phraseological units across three languages, contributing to differences in semantic transparency, cultural load and interpretative complexity within differentiated ELT contexts.

Translation of idioms is rather a complicated process, since a direct translation may lead to semantic loss or distortion of meaning. Their interpretation and translation require not only linguistic competence, but also intercultural awareness and understanding of symbolic meanings embedded in different linguistic worldviews. These important factors include sociolinguistic elements, cultural aspects, linguistic and stylistic approach and metalinguistic factors. The study also argues that there are no fixed strategies that can be prescribed to a translator working with idioms; the translator must choose the best strategies when translating idioms. For this reason, a translator is required to have a sufficiently high level of knowledge of idioms and phraseological units, as well as a developed ability to recognize phraseological units, the latent meaning of which he does not know [13]. In this context, numeral-based phraseological units demonstrate varying degrees of interpretative complexity and intercultural specificity, which increases their pedagogical relevance in multilingual ELT environments.

Another study of phraseological units indicates that translators must necessarily work with all the tools at their disposal, which include not only dictionaries, glossaries, and automatic translators, but also accessible corpuses. In this sense, corpus managers can be very useful as they display actual examples of language usage and the meaning of phraseological units in translation. Available corpuses usually represent the lexicons and contexts used by each community of native speakers, so they inevitably reflect language at all times. Furthermore, it is important to take into account that the strategies required to offer translators and interpreters must enable and encourage them to do their work correctly: to have not only significant data, providing information on equivalence in translation, but also translation solutions. In this regard, corpuses represent an exceptional tool for professional translators and interpreters, as they allow a systematic search for equivalence and reflect the decisions taken in the translation process, and provide expert knowledge of professional translator [14]. In adaptive ELT settings, learning analytics may utilize phraseological translation tasks as a metric for student interpretive and cultural proficiency.

In addition, learning analytics provides educators with valuable insights into learners' linguistic performance in e-learning environments, allowing for a more adaptive and learner-centered instructional process. For Volk et al. (2015), learning analytics is a "valuable opportunity to gain specific information for a better understanding of students' learning behavior and to improve their learning success" [15, p. 156]. By analyzing students' interaction with educational materials, teachers may identify phraseological tasks for particular proficiency level and cognitive readiness. Moreover, the repeated engagement with phraseological exercises may contribute to a learning progress, "a repetition usually leads to an improvement of exercise results and increased success rates" [15 p. 171]. Such a learning analytics approach contributes to the development of personalized learning profiles and facilitates the alignment of phraseological content with learners' linguistic competence, cognitive readiness and intercultural communication skills in multilingual ELT contexts.

The growing interest in phraseology and its specific cases can be explained partly by the complex processes taking place in this part of the vocabulary, partly by the focus on lexicography, as well as by the growing interest in discourse in general and its relevance to linguistics. From the perspective of language education, the findings have practical relevance for applying differentiated instruction in ELT, since the analysis of numerical symbols and idiomatic expressions allows to vary the educational material depending on students' heterogeneous levels of language proficiency and intercultural competence.

The findings suggest that numerical phraseological units function not only as linguistic structures but also as carriers of cultural and cognitive meaning. While similar numbers recur across Kazakh, English, and Russian languages, their semantic interpretations and pragmatic functions differ significantly. In other words, the results can be interpreted within the framework of cognitive linguistics and applied linguistics, highlighting the interaction between linguistic form, cultural meaning, and pedagogical application.

The research challenges the traditional view about teaching phraseological units as fixed lexical items regardless of the learner level. Instead, the findings indicate that phraseological units differ significantly in terms of cultural and cognitive complexity in three languages, thus aiming at systematic differentiation in ELT.

Moreover, this study argues that semantic transparency and cultural load are more relevant for instructional sequencing, particularly in multilingual and multicultural educational contexts such as Kazakhstan. In addition, non-equivalence in translation and cultural specificity is viewed as a pedagogical resource rather than obstacle, as they foster deeper interpretative and intercultural competence among learners.

Conclusion

Framed by current research, numeral-based phraseological units provide a conceptually rich and contextually relevant basis for tailored English language instruction, as they reflect students' semantic interpretation, intercultural awareness and interpretative complexity. The findings demonstrate that numeral-based phraseological units differ significantly across Kazakh, English and Russian languages in terms of semantic transparency, cultural load and interpretative complexity. These characteristics provide a conceptual basis for differentiated instruction in multilingual environments and may serve as pedagogically oriented framework for teachers selecting phraseological materials and designing classroom activities for learners with different proficiency levels. For instance, the numeral-based phraseological units reflect culturally specific cognitive models and may therefore be classified according to semantic transparency, cultural load and interpretative complexity. Such classification supports differentiated ELT by enabling adaptive scaffolding and the selection of teaching materials appropriate to students' proficiency level and interpretative abilities. Moreover, the systematization and classification of such phraseological units make it possible to adapt the teaching resources in accordance with intercultural competence, which supports the application of the principles of data-driven differentiated

instruction in ELT. This approach makes it possible to adapt learning materials to learners' proficiency levels and cognitive abilities. In addition, the use of this data in learning analytics provides teachers with the opportunity to make informed decisions when selecting texts, assignments, and exercises, thereby supporting the development of vocabulary, critical thinking, and interpretive skills, thus enhancing their intercultural communicative competence.

This methodological contribution of the study lies in the transformation of linguistic findings into practical teaching procedures. The findings may be applied in ELT classrooms through differentiated assignments for developing vocabulary, speaking activities focusing on intercultural discussion, idiom interpretation exercises and corpus-based phraseological analysis to support analytical reading and intercultural interpretation. Finally, numerical phraseological units may also be integrated into adaptive learning systems for selecting educational materials according to learners' proficiency levels and interpretative competence. In this context, learning analytics may support the systematic adaptation of phraseological materials according to learners' needs, enabling teachers to adjust the complexity of instructional content to learners' cognitive and linguistic readiness, thereby implementing personalized and adaptive ELT practices.

Despite the practical and pedagogical significance of the study, several limitations should be acknowledged. First, the research is mainly theoretical and comparative in nature and is based on selected literary examples rather than large-scale corpus analysis. The analysis of literary discourse therefore enables a deeper examination of numerical symbolism, interpretative complexity and culturally specific conceptual models reflected in phraseological units across different languages. Moreover, the proposed framework demonstrates how linguistic findings of numeral-based phraseological units can be effectively used in ELT practices through differentiated instruction by classifying phraseological complexity to proficiency levels, learning objectives and classroom activities. As a result, the differentiated model may assist teachers in designing personalized learning pathways, therefore providing practical guidance for differentiated instruction of the numeral-based phraseological units and enhancing pedagogical decision-making in multilingual ELT environments. Consequently, this approach may support the development of communicative, interpretative, and intercultural competences. This study calls for further research, mainly how the conceptual basis may be implemented with the use of learning analytics in pedagogical decision-making.

Second, the pedagogical implications and learning analytics perspective proposed in the research require further empirical verification in authentic ELT classroom settings. Further research may therefore include corpus-based analysis of numeral-based phraseological units and their translations, as well as experimental studies in Kazakhstani universities to evaluate the effectiveness of differentiated instructional strategies. Moreover, future studies may also focus on the development of a pedagogically oriented differentiated framework based on semantic transparency, cultural load and interpretative complexity for potential integration into learning analytics systems in multilingual ELT environments.

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**САН ЕСІМДЕР БАР ФРАЗЕОЛОГИЯЛЫҚ БІРЛІКТЕР АРҚЫЛЫ
АҒЫЛШЫН ТІЛІН ОҚЫТУДАҒЫ САРАЛАНҒАН ТӘСІЛ: ОҚЫТУ
АНАЛИТИКАСЫ ТҮРҒЫСЫНАН**

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Андатпа. Бұл мақалада қазақ, ағылшын және орыс көркем мәтіндеріндегі сан есімдерге негізделген фразеологиялық бірліктер лингвистикалық, когнитивтік және педагогикалық тұрғыдан қарастырылады. Зерттеудің мақсаты – сан есімдер қатысқан фразеологиялық бірліктердің семантикалық, мәдени және интерпретациялық ерекшеліктерін анықтау, сондай-ақ олардың ағылшын тілін саралап оқыту аясындағы педагогикалық әлеуетін айқындау. Зерттеуде жүйелік және салыстырмалы талдау, синтез, дедукция, жіктеу, сондай-ақ ғылыми жарияланымдарды талдау әдістері қолданылды. Мақалада үш тілдегі сан есімдерге негізделген фразеологиялық бірліктердің семантикалық айқындығы, мәдени жүктемесі және интерпретациялық күрделілігі негізінде жіктелуі ұсынылған. Зерттеу нәтижелері қарастырылған тілдердегі фразеологиялық бірліктердің символикалық мағынасы, мәдени ерекшелігі және интерпретациялық күрделілігі бойынша едәуір айырмашылықтарға ие екенін көрсетеді. Қазақ фразеологиясы мәдени және тектік символиканы бейнелейді, ағылшын фразеологиясы коммуникативтік прагматизммен және семантикалық айқындықпен сипатталады, ал орыс фразеологиясы метафоралық бейнелілігімен және эмоциялық реңкімен ерекшеленеді. Зерттеудің ғылыми маңыздылығы сандық символиканы ағылшын тілін саралап оқыту аясында пәнаралық және салыстырмалы тұрғыдан талдауымен анықталады. Жұмыстың практикалық құндылығы фразеологиялық материалды білім алушылардың тілдік даярлық деңгейі мен мәдениетаралық құзыреттілігіне бейімдеу мүмкіндігімен байланысты, бұл білім беру үдерісінде сөздік қорды, интерпретациялық дағдыларды және мәдениетаралық коммуникацияны дамытуға ықпал етеді. Ұсынылған жіктеу моделі ағылшын тілін оқытудағы көптілді білім беру ортасында оқыту аналитика қолдануымен мәдени-бейімделген және сараланған оқу материалдарын әзірлеудің әдіснамалық негізі бола алады.

Тірек сөздер: сандық фразеологиялық бірліктер, сандық символизм, когнитивтік дайындық, мәдениетаралық коммуникация, сараланған оқыту, ағылшын тілін оқыту, мәдениетаралық құзыреттілік, тілді меңгеру деңгейі, оқыту аналитикасы

ДИФФЕРЕНЦИРОВАННЫЙ ПОДХОД В ОБУЧЕНИИ АНГЛИЙСКОМУ ЯЗЫКУ ПОСРЕДСТВОМ ФРАЗЕОЛОГИЧЕСКИХ ЕДИНИЦ С ЧИСЛИТЕЛЬНЫМИ: ПЕРСПЕКТИВА УЧЕБНОЙ АНАЛИТИКИ

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Аннотация. В данной статье рассматриваются фразеологические единицы с числительными в казахских, английских и русских художественных текстах с лингвистической, когнитивной и педагогической точек зрения. Цель исследования заключается в выявлении семантических, культурных и интерпретационных особенностей фразеологических единиц с числительными, а также в определении их педагогического потенциала в рамках дифференцированного обучения английскому языку. В исследовании используются методы системного и сравнительного анализа, синтеза, дедукции, классификации, а также анализа научных публикаций. В статье предложена классификация фразеологических единиц с числительными в трех языках на основе трех параметров: семантической прозрачности, культурной нагрузки и интерпретационной сложности. Результаты исследования показывают, что фразеологические единицы существенно различаются по символическому значению, культурной специфике и интерпретационной сложности в рассматриваемых языках. Казахская фразеология отражает культурную и родовую символику, английская фразеология характеризуется коммуникативным прагматизмом и семантической прозрачностью, тогда как русская фразеология отличается метафорической выразительностью и эмоциональной окрашенностью. Научная значимость исследования заключается в его междисциплинарном и сравнительном подходе к анализу числовой символики в рамках дифференцированного обучения английскому языку. Практическая ценность работы заключается в возможности адаптации фразеологического материала к уровню языковой подготовки и межкультурной компетенции обучающихся, что способствует развитию словарного запаса, интерпретационных навыков и межкультурной коммуникации в образовательном процессе. Предложенная классификационная модель может служить методологической основой для разработки культурно-адаптивных и дифференцированных учебных материалов с использованием учебной аналитики в многоязычной среде при обучении английскому языку.

Ключевые слова: Фразеологические единицы с числительными, числовая символика, когнитивная готовность, межкультурная

коммуникация, дифференцированное обучение, обучение английскому языку, межкультурная компетенция, уровень владения языком, учебная аналитика

Received / Мақала түсті / Статъя постуила: 09.12.2025

Accepted: / Жариялауға қабылданды / Принята к публикации: 26.06.2026

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