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DEVELOPING MASTER'S DEGREE STUDENTS' NARRATIVE SKILLS IN THE CONTEXT OF FOREIGN LANGUAGE INTERCULTURAL COMMUNICATION

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The article addresses the issue of developing narrative skills of Master's degree students as an essential component of foreign language intercultural communication. The relevance of the study is determined by the intensification of Ukraine's intercultural contacts under contemporary sociocultural and wartime conditions, which place new demands on the professional training of future foreign language teachers. The authors substantiate the assumption that effective intercultural dialogue cannot be achieved without well-developed narrative skills, as these skills enable speakers to interpret events, convey personal experience, emotions and value orientations while taking into account the sociocultural specificity of communication partners.

The article synthesizes national and international scholarly approaches to defining the concept of narrative and identifies its key characteristics, functions and structural components. The authors present the results of a pedagogical study conducted within the course Teaching Language and Culture at Zhytomyr Ivan Franko State University. The research was implemented in five stages (preparatory, introductory, professionally oriented, operational-practical, and creative) and involved the use of authentic video narratives, analytical tasks, role-play activities, group work, and direct intercultural interaction with native speakers.

The empirical findings demonstrate a positive dynamics in the development of students' narrative skills. The results of a post-training questionnaire survey confirmed that students became aware of the narrative as a cultural phenomenon and clearly distinguished it from other types of oral productive speech and feel more confident producing their personal narratives in intercultural communication. The authors outline prospects for further research, which include the selection of authentic materials and the development of a methodology for forming narrative skills of senior secondary school students.

Key words: narrative skills; intercultural communication; foreign language education; narrator; oral narrative; linguo-sociocultural competence; authentic materials.

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РОЗВИТОК НАРАТИВНИХ НАВИЧОК СТУДЕНТІВ МАГІСТРАТУРИ В КОНТЕКСТІ МІЖКУЛЬТУРНОЇ КОМУНІКАЦІЇ ІНОЗЕМНОЮ МОВОЮ

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У статті розглядається проблема формування наративних умінь здобувачів вищої освіти другого рівня як важливого складника іншомовної міжкультурної комунікації. Актуальність дослідження зумовлена інтенсифікацією міжкультурних контактів України в сучасних соціокультурних та воєнних умовах, що висуває нові вимоги до професійної підготовки майбутніх учителів іноземної мови. Авторами обґрунтовується положення про те, що ефективний міжкультурний діалог неможливий без сформованих наративних умінь, які забезпечують здатність мовця інтерпретувати події, передавати власний досвід, емоції та ціннісні орієнтації з урахуванням соціокультурної специфіки партнерів по спілкуванню.

У статті узагальнено підходи вітчизняних і зарубіжних науковців до трактування поняття "наратив", визначено його основні характеристики, функції та структурні компоненти на основі моделі усного наративу В. Лабова. Авторами наводяться результати педагогічного дослідження, проведеного в межах курсу "Teaching Language and Culture" в Житомирському державному університеті імені Івана Франка. Дослідження реалізовувалося у п'ять етапів (підготовчий, ознайомчий, професійно-орієнтований, операційно-практичний і творчий) та передбачало використання автентичних відеонаративів, аналітичних завдань, рольових ігор, групових форм роботи й міжкультурної взаємодії з носіями мови.

Емпіричні дані засвідчили позитивну динаміку у сформованості наративних умінь студентів. Результати анкетування, проведеного авторами після навчання, підтвердили усвідомлення студентами специфіки наративу як феномену культури та їх готовність до формування аналогічних умінь у старшокласників. Перспективи подальших досліджень автори статті вбачають в доборі автентичних матеріалів і розробленні методики формування наративних умінь учнів старшої школи.

Ключові слова: наративні вміння; міжкультурна комунікація; іншомовна освіта; усний наратив; наратор; лінгвосоціокультурна компетентність; автентичні матеріали.

Introduction of the issue. The 21st century has been marked by the growth of technical, scientific, and cultural cooperation among countries, which requires their representatives to communicate across various spheres of social life. The intensive development of Ukraine's international contacts under the conditions of ongoing military events in the country, communication with the global community, attitudes toward and evaluation of these events, as well as Ukrainians' participation in various online and offline conferences, meetings, interviews, negotiations, rallies, flashmobs, and educational activities, are all driven by the necessity of engaging in intercultural communication aimed at achieving mutual understanding with representatives of diverse cultures.

Based on numerous observations, analysis, generalizations, and our own empirical experience, we have come to the conclusion that achieving the goals of effective intercultural dialogue requires more than traditionally accepted foreign

language proficiency, such as grammatical knowledge, a certain lexical stock, or knowledge of synonyms and antonyms. Interaction between partners in intercultural communication requires not only linguistic knowledge and skills but also familiarity with cognitive models and patterns of verbal and nonverbal communicative behavior, which are correlated with the knowledge and norms accepted in other cultures. In other words, mastery of intercultural communicative skills is essential.

Moreover, when communicating with representatives of different countries, Ukrainians do not merely transmit personal experiences but also describe events taking place in their country, expressing emotions, feelings, and personal worries. Their narratives are not reproductions of something read or heard; rather, they appeal to listeners with the hope of mutual understanding. This highlights the importance of developing narrative skills that underline the production of oral discourse, which in

turn determines new requirements for the quality of professional training of linguistically educated specialists, including future foreign language teachers, and necessitates a rethinking of certain aspects of their professional foreign language training.

We believe that mastering narrative skills, understanding the mechanisms of their formation, and acquiring linguistically significant content relevant to intercultural communication within higher education institutions (HEIs) contribute to shaping a new generation of foreign language teachers as language personalities capable of developing similar skills in their future students.

Our own experience of intercultural communication confirms that its participants employ various types and techniques of event description, which in academic literature are referred to by the term "narrative" (from Latin *narrare* – "to tell") [8] and are considered a dominant unit of foreign language speech communication instruction.

Outline of unresolved issues brought up in the article. In the new foreign language curricula for general secondary education institutions in Ukraine, this type of skill is not singled out separately but is included as part of productive speech competence. However, under the current conditions in Ukraine, it is appropriate to argue for the necessity of forming specific narrative skills in future foreign language teachers, viewing narrative as a phenomenon of foreign language culture and a carrier of national and cultural specificity that identifies the speaker as a representative of a particular linguo-sociocultural community. This significantly contributes to establishing mutual understanding between communicators, shaping an appropriate image, and imparting semantic direction to utterances, thereby influencing the listener.

Thus, while studying at a language-focused HEI, future teachers should learn to construct their own narrative utterances, taking into account the partner's culture in intercultural communication, adequately perceive the

sociocultural specificity of their interlocutor's utterances, grammatically interpret the proposed narrative, and respond to it appropriately.

Aim of the research. The aim of this article is to demonstrate the significance and possibilities of developing narrative skills in future foreign language teachers as an important component of intercultural communication within the context of a language-focused higher education institution.

Analysis of recent research and publications. In national and international scholarly and methodological literature, a considerable number of studies address various aspects of developing intercultural communication skills (N.V. Borysko, V.O. Kalinin, S.Yu. Nikolaieva, O.S. Selivanova, O.M. Baikova, O.B. Tarnopolskyi, N.K. Skliarenko, among others). Analysis of research conducted by Ukrainian methodologists on teaching oral foreign language production reveals that most focus on various aspects of developing oral English productive competence (V.V. Chernysh, O.Ye. Ustymenko, L.I. Morska, V.V. Skalkin, V.H. Sazhko, V.H. Redko, etc.). At the same time, the concept of narrative skills has not yet gained sufficient recognition in the methodological practice of foreign language teaching in Ukraine, although the notion of "narrative" is now widely used beyond the educational context.

Analysis of several international sources [3-10] reveals a significant diversity of approaches to defining this concept, which underscores its multidimensional nature.

Barbara Herrnstein Smith defines narratives very simply as "someone telling someone else about something that happened" [6: 228]. French scholar Gérard Genette interprets narrative as "oral or written discourse that recounts an event or a series of events, a verbal equivalent of non-verbal phenomena" [4: 132]. American linguist Shlomith Rimmon-Kenan views narrative as "the sequential representation of fictional events" [9: 2]. William Labov, known for

his work on narrative studies, described narratives as "the style of speech we use in everyday communication with family and friends" [7]. The ideas of these scholars laid the foundation for further research by other international researchers, including J.A. Robinson, G. Waletzky, S. Rimmon-Kenan, and others.

Analysis and reflection on these studies enable us to consider **narrative** as a first-person account of events that occurred either to the narrator or to someone else, as the narrator's personal way of perceiving and interpreting reality, including events, actions, and utterances. Moreover, while narrating, the narrator not only reproduces a sequence of events but also interprets them, expressing personal attitudes and evaluations. This can be viewed as a form of self-cognition,

self-expression, and self-identification. Consequently, oral narrative can be regarded as one of the most widespread forms of verbal interpersonal communication occurring at various levels and in diverse communicative situations.

Results and discussion. To achieve the aim set in this article, we found it relevant to conduct a study on developing narrative skills of future foreign language teachers as a potential component of intercultural communication, based on the course *Teaching Language and Culture* at the Institute of Foreign Philology of Zhytomyr Ivan Franko State University. The study was conducted with first-year Master's degree students during the ninth semester and was implemented in five stages, presented in *Fig. 1*.



Fig. 1. Stages of developing narrative skills of future foreign language teachers in the context of foreign language intercultural communication

The research materials consisted of authentic oral narratives by world political leaders who visited Ukraine during the wartime period, presented as video broadcasts on Ukrainian television networks.

At **the first – preparatory – stage**, prior to the experiment, students were asked to watch a video commentary by Boris Johnson delivered in Bucha, which

constituted an oral narrative, and to respond in writing to five questions:

1: What is the main message of Boris Johnson's narrative?

2: What sociocultural characteristics typical of the English culture did the narrator use? Why?

3: What role did linguistic means (phonetic, grammar, lexis) used in the narrative play?

4: *What verbal and nonverbal communicative behavior patterns helped the narrator to influence the audience?*

5: *How did the personal characteristics of the narrator affect his oral narrative?*

During the same session, students were invited to participate in a narrative game by imagining what they could respond to Boris Johnson's speech in the form of their own oral narrative, 100-120 words in length. Their responses were recorded for further analysis and to enable future teachers to independently identify linguo-sociocultural differences between English and Ukrainian narratives, their influence on intercultural communication, accurate identification of the main message, and factors affecting mutual understanding.

The results of the first stage also contributed to students' motivation:

- to master narrative skills, as before the experiment 85% of students believed they possessed sufficient productive competence, equating these concepts;

- to understand narrative as a cultural phenomenon, since responses to the second, third, and fourth questions revealed a low level of skill development: only 20% identified sociocultural features of English narrative, 12% interpreted linguistic means, and 15% noted verbal and non-verbal communicative behaviour patterns;

- to develop personal qualities influencing intercultural communication partners.

After that, we asked the students to listen to recordings of other oral narratives and respond to the same five questions. Our aim was to teach students to independently identify the existing differences between the two cultures that influence participants in intercultural communication. In 100% of cases, future teachers noted differences between their own and Boris Johnson's use of verbal and non-verbal communicative behaviour patterns, and also observed that speakers' personal qualities—emotionality, confidence in the content of the narrative, and the selection of linguistic means—make a narrative more persuasive.

At **the second – introductory – stage**, students were asked to independently familiarize themselves with the recommended literature, compile a list of narrative characteristics, and determine its main functions.

Let us consider the characteristics of narrative identified and presented by the students, on the basis of which narrative is regarded as one of the principal ways of human communication.

The **main author-defined characteristics** of narrative include:

- **Temporality** as the ability to establish a temporal sequence between events that have occurred. American linguists W. Labov and J. Waletzky, who identified this characteristic, note that the verbal sequence must correspond to the temporal sequence of events [7; 11].

- **Orientation toward the intercultural communication partner.** J. Prince, in *A Dictionary of Narratology*, states that "events are narrated by one, two, or several narrators to one, two, or several addressees" [8].

Let us generalize other characteristics presented in the works of various scholars:

- **Sociality**, understood as the ability of narrative to reflect certain values, behavioral norms, and generally accepted social attitudes inherent in a particular society or culture.

- **Mnemonicity**, defined as the ability to imprint and retain in memory the events that are most important and significant for a given narrative.

- **Persuasiveness**, that is, the ability to influence the listener through the use of appropriate verbal means and by emphasizing key moments of the content.

- **The narrator's personal evaluation of the significance of narrative events**, which involves interpretation of events and commentary on them.

The identified characteristics of narrative determine its **two main functions** outlined by the American linguist W. Labov:

- the *referential function*, which establishes the context of the narrative by

arranging events in the sequence in which they occurred;

- the *evaluative function*, which describes the narrator's communicative intention in the process of narrative production [7].

In addition to knowledge of the functions and characteristics of narrative, future teachers need to become familiar

with its structure in order to consciously and effectively construct their own utterances.

In our study, we adopted the structure of the oral narrative-story developed by William Labov, which represents a sequence of six narrative-building stages, and presented it to the students in the form of the following table.

Table 1

Structure of an Oral Narrative Story (after W. Labov)

Section	Aim
I. Abstract	Gives an overview of the story
II. Orientation	Orients the listener in respect to person, place, time, and behavioral situation (they precede the main story)
III. Complicating	Gives the main story during which the narrative unfolds
IV. Evaluation	The narrator evinces self-awareness, giving a purpose of the story
V. Resolution	Gives the story a sense of completion
VI. Coda	Returns listeners to the present, drawing them back out of the world of the story into the world of the story's end

Retrieved from "Narrative Analysis: Oral Version of Personal Experience" [7].

The task proposed to check students' understanding of the narrative structure, namely, "give any narrative story of your most memorable event using the sections of the narrative structure above", did not cause any difficulties for the students, which allowed us to proceed to **the third, more complex – professionally oriented stage.**

Based on the topics covered in the block "Linguacognitive Competence Development" within the course "Teaching Language and Culture", during which students became well acquainted with such key concepts as *Big "C" and Little "c" Culture, Stereotypes & Prejudices, Cultural Shock, Cultural Blenders, Non-equivalents & background lexis, and verbal and non-verbal communicative behaviour*, students were offered tasks that required not only the above-mentioned sociocultural knowledge but also professional and creative skills, the ability to work in micro-groups, and the ability to interpret acquired knowledge and skills in order to complete the task. E.g., *Group up with your friends to work out your learning narrative skills for intercultural communication on the basis of William Labov's narrative structure.*

While performing this methodological task, future teachers had to determine

which narrative skills of senior secondary school students should be developed so that they could generate their own narratives and take into account the sociocultural characteristics of intercultural communication partners, under conditions in which the narrative acquires additional colouring as a carrier of another cultural specificity.

To familiarize students with the results of individual group work, we employed the "Crossover Groups" technique, after which the entire list of narrative skills necessary and sufficient for successful participation in intercultural communication was presented for comprehensive discussion. The following are examples of narrative skills identified by 92% of students when constructing their own narratives with regard to the sociocultural characteristics of the communication partner:

- mastering models of verbal and non-verbal communicative behaviour characteristic of English-speaking partners (the British, Americans, Canadians, Australians, etc.);
- knowing sociocultural realia (idioms, proverbs, and sayings), non-equivalent and background lexis most common in the interlocutor's foreign language culture, in order to correctly understand him/her and to appropriately

use such language units in intercultural communication.

In addition, 36% of students identified such skills as awareness of the intercultural communication situation for preparing their own narrative and the ability to determine narrators' personal values and viewpoints.

Furthermore, 12% of students emphasized the skills of identifying the educational level of communication partners based on their intonational and pronunciation patterns, vocabulary use, and grammatical structures.

To ensure the referential function of the narrative and the consistency of its production, on the one hand, and to identify missing narrative skills, on the other hand, future teachers were offered an additional methodological task—to correlate the identified skills with the six episodes of the narrative structure and, if necessary, to supplement the list with missing skills.

The work was organized in the *Whole Group Interaction* mode, with the methodologist-experimenter playing a dominant role. For example, in the first episode, Abstract, to clarify the question "What is the essence of my narrative?", the majority agreed that the single skill identified by future teachers—taking the communicative situation into account—was insufficient. As a result of the discussion, **two additional narrative skills** were added:

- *determining the main function of the narrative (What do I want to convey through my story? To persuade? To surprise? To inform?, etc.);*
- *determining the core content of the narrative.*

The final issue at this stage was a collective discussion in small groups on criteria for selecting materials to develop students' narrative skills using different types of support: visual, auditory, and audiovisual. Upon completion of the discussion, **the following criteria** were selected:

- *authenticity;*
- *contextual and situational relevance of content;*

- *the presence of linguistic and sociocultural components of the English language and the culture of British or American society;*

- *communicative and role-based narrative etiquette;*

- *structural organization of the narrative.*

Based on the selected criteria, future teachers received individual exploratory tasks to select and present materials for developing narrative skills in senior secondary school students as a component of intercultural communication.

The next two stages were related to the development of narrative skills in the future teachers themselves, since the teaching profession is realized not only in methodological and pedagogical dimensions but also, as previously noted, in shaping the foreign language teacher as a language expert. Our teaching experience confirmed the theses formulated above: having mastered this type of skill during practical classes of the "Teaching Language and Culture" course at the higher education institution, students did not experience difficulties during their independent teaching practice.

Moreover, 84% of students who studied abroad in different countries were able to directly implement their narrative skills in intercultural communication with native speakers.

Therefore, **the fourth, operational-practical stage** aimed at developing students' skills in constructing their own oral narratives as a phenomenon of intercultural communication, based on authentic video materials featuring native speakers. Such video materials were deliberately selected to enable students to perceive not only verbal models of communicative behavior but also non-verbal ones, which often add greater meaning and depth to verbal patterns and also characterize the narrator's personality.

At this stage, students performed receptive, reproductive, communicative, and socioculturally oriented tasks aimed at identifying the linguo-sociocultural

potential of the proposed narrative, determining the degree of its manifestation, revealing the cognitive specificity of the English language and culture, observing rules of language etiquette and their compliance with the universal theory of politeness, establishing the reasons for deviations from accepted etiquette norms, as well as recognizing and interpreting sociocultural realia, etc.

For example: *Watch President Donald Trump's speech before American journalists and:*

- *Make a list of phrasal verbs and idioms used by the narrator. Comment on their role in the President's narrative.*

- *Say what verbal and non-verbal communicative behaviour patterns made his narrative convincing.*

- *Describe Donald Trump's reactions to different journalists' questions. Was it always the same? etc.*

The final, fifth—creative—stage aimed at developing students' independent narrative skills, during which they were given complete freedom both in choosing the content of the narrative (*what to say?*) and in selecting the means of its construction (*how to say it?*).

At this stage, two techniques were employed. One of them was a role-based narrative game that we had developed in several variants, one of which the students had already encountered.

Variant 1. Watch a video fragment of an interview with the American ambassador held by a Ukrainian journalist. Imagine you are in the journalist's shoes and are interviewing the American ambassador. How would you manage it?

Variant 2. You are invited to participate in a conference for novice teachers in Great Britain. Prepare for the narrative "Emotional relief for children in wartime".

Variant 3. Watch online the summit of the first ladies and gentlemen held in Ukraine and organized by the First Lady of Ukraine, Olena Zelenska. Select one of the participants and develop a narrative as a possible reaction.

The second technique that aroused the greatest interest among students was intercultural communication, featuring invited representatives from English-speaking cultures. We also applied **different modes of integration:**

- one native speaker – a group of students;
- a group of representatives of different cultures – a group of students;

- the *swapping technique* – informal intercultural communication with various native speakers.

Such intercultural communication with native speakers reveals the specific features of the English language's functioning and ensures students' immersion in another linguo-cultural environment, which contributes to their familiarization with the paradigm of value orientations of English-speaking cultures.

Upon completion of the fifth stage, a questionnaire survey was conducted among future English teachers to determine the importance of narrative skills in intercultural communication. When asked whether oral monologic utterances differ from narratives as cultural phenomena, all respondents gave affirmative answers, providing a list of distinguishing features.

Responses to the question concerning the difficulties students encountered

during the formation of narrative skills were varied (see Fig. 2):

- 46% did not experience significant difficulties;
- 24% reported difficulties in perceiving certain linguistic realia;
- 16% experienced difficulties due to interference from their native language;
- 14% encountered difficulties in understanding certain verbal communicative behaviour patterns of their communication partners.

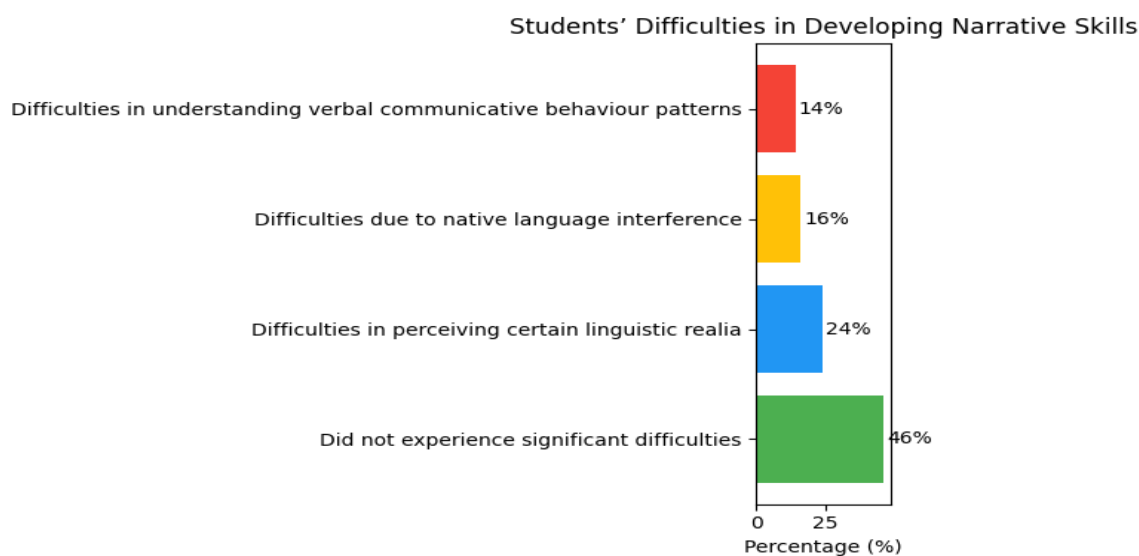


Fig. 2. Students' difficulties in developing narrative skills

Overall, the respondents positively assessed their achievements and stated their readiness to develop similar skills in senior secondary school students.

Conclusions and research perspectives. It can be concluded that oral narrative (including storytelling, description, etc.) functions as a phenomenon within foreign language culture. Therefore, the development of narrative skills should be regarded as a key component of effective intercultural

communication. The formation of these skills to future foreign language teachers within the context of a language-focused higher education institution ensures their readiness to purposefully develop similar skills in their prospective students.

The prospects for further research lie in the selection of authentic materials and the development of a methodology for enhancing narrative skills in senior secondary school students.

REFERENCES (TRANSLATED & TRANSLITERATED)

1. Bihych, O., Borysko, N., Boretska, H., & al. (2013). *Metodyka navchannia inozemnykh mov i kultur: teoriia i praktyka [Methodology of Teaching Foreign Languages and Cultures: Theory and Practice]*: pidruchnyk dlia studentiv klasychnykh, pedahohichnykh i lnhvistychnykh universytetiv. Ed. by S.Yu. Nikolaieva. Kyiv, 590 [in Ukrainian].
2. Bruner, J. (1987). Life as Narrative. *Social Research*, 54(1), 11-32. Retrieved from: <https://www.jstor.org/stable/40970444> [in English].
3. Genette, G. (1980). *Narrative Discourse: An Essay in Method*. Ithaca, NY: Cornell University Press, 161. Retrieved from: 81

<https://www.cornellpress.cornell.edu/book/9780801492594/narrative-discourse/> [in English].

4. Genette, G. (1983). *Narrative Discourse Revisited*. Ithaca, NY: Cornell University Press [in English].

5. Goldstein, D.E. (2001). Unfinished Stories: Problematics of Narrative Competence. *Journal of American Folklore*, 114(453), 137-156. DOI: 10.5406/jamerfolk.114.453.0137 [in English].

6. Herrnstein Smith, B. (1980). Narrative Versions, Narrative Theories. *Critical Inquiry*, 7(1), 213-236. DOI: <https://doi.org/10.1086/448097> [in English]

7. Labov, W., & Waletzky, J. (1997). Oral Versions of Personal Experience: Three Decades of Narrative Analysis. *Journal of Narrative and Life History*, 7, 3-38. Retrieved from: <https://www.researchgate.net/publication/233682229> [in English].

8. Prince, G. (2003). *A Dictionary of Narratology*. Lincoln & London: University of Nebraska Press, 126. Retrieved from: <https://www.nebraskapress.unl.edu/nebraska-paperback/9780803287761/a-dictionary-of-narratology/> [in English].

9. Rimmon-Kenan, S. (2006). Concepts of Narrative. In *Studies across Disciplines in the Humanities and Social Sciences*. Helsinki: Helsinki Collegium for Advanced Studies, 1, 10-19. Retrieved from: https://helda.helsinki.fi/bitstream/handle/10138/25747/001_03_rimmon_kenan.pdf [in English].

10. Robinson, J.A. (1981). Personal Narratives Reconsidered. *Journal of American Folklore*, 94(371), 58-85. Retrieved from: <https://www.jstor.org/stable/i223714> [in English].

11. Selivanova, O.I., & Baikova, O.M. (2008). *Opanovuyuchy anhliysku movu i kul'turu [Mastering English language and culture]. Part 1: Great Britain, United States of America*: textbook for students of higher education institutions. Kyiv: Lenvid, 126 [in Ukrainian].

12. Tarnopolskyi, O. B., & Skliarenko, N. K. (2003). *Standards of communicative behavior in the USA = Lifestyle communicative behavioral patterns in the USA*: a textbook for senior-level students studying English as a major. Kyiv: [publisher not indicated], 207. Retrieved from: https://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=S&I21DBN=EC&P21DBN=EC&S21CNR=20&S21COLORTERMS=1&S21FMT=fullwebr&S21P01=0&S21P02=0&S21P03=A%3D&S21REF=10&S21STN=1&S21STR=Tarnopolsky+O%24&Z21ID=&utm_source=chatgpt.com [in Ukrainian].

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