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A STRUCTURAL MODEL OF TEACHING ENGLISH BASED ON LONGREAD

Annotation: This paper examines the application of educational models grounded in established pedagogical methods that reflect key aspects of the teaching and learning process. Many of these models are widely used in educational practice. One such approach is the structural pedagogical model, which identifies the core components of a pedagogical phenomenon and the relationships among them. A structural model of English language teaching based on longreads has been developed, which represents a set of elements or components necessary for the existence and functioning of an object or event in the process of teaching English, and also shows the relationships between them.

Keywords: journalism, longread, multimedia elements, model.

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Andijon davlat pedagogika instituti doktoranti

INGLIZ TILINI "LONGREAD" (LONGRID) ASOSIDA O'QITISHNING TARKIBIY (STRUKTURAVIY) MODEL

Annotatsiya. Ushbu maqolada umume'tirof etilgan pedagogik usullarga asoslangan va ta'lim jarayonining umumiy jihatlarini aks ettiruvchi ta'lim modellarini qo'llashning bir qancha jihatlari ko'rib chiqilgan. Ushbu modellarning ba'zilari ta'lim amaliyotida keng qo'llaniladi. Ulardan biri bu pedagogik obyekt yoki hodisaning elementlari yoki tarkibiy qismlarini va ular o'rtasidagi munosabatlarni aks ettiruvchi strukturaviy pedagogik modeldir. Ingliz tilini o'qitishning longread asosidagi strukturaviy modeli ishlab chiqilgan bo'lib, u ingliz tilini o'qitish jarayonida obyekt yoki hodisaning mavjudligi va ishlashi uchun zarur bo'lgan elementlar yoki komponentlar to'plamini hamda ular o'rtasidagi munosabatlarni ifodalaydi.

Kalit so'zlar: jurnalistika, longread, multimedia elementlari, model.

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СТРУКТУРНАЯ МОДЕЛЬ ОБУЧЕНИЯ АНГЛИЙСКОМУ ЯЗЫКУ НА ОСНОВЕ ЛОНГРИДА

Аннотация. В данной работе рассмотрены некоторые аспекты применения образовательных моделей, которые построенные на основе общепризнанных педагогических методов и отражают общие аспекты образовательного процесса. Отдельные из них широко применяются в практике образовательного процесса. Одним из таких моделей является структурная педагогическая модель, которая отражает элементы или компоненты педагогического объекта или явления и взаимосвязи между ними. Разработана структурная модель обучения английскому языку на основе лонгрид, которая представляет собой совокупность элементов или компонентов, необходимых для существования и функционирования объекта или события в процессе обучения английскому языку, а также показывает взаимосвязи между ними.

Ключевые слова: журналистика, лонгрид, мультимедийные элементы, модель.

Introduction

Modeling is widely employed in contemporary pedagogy to address both theoretical and practical challenges and serves as one of the principal tools for studying pedagogical phenomena. The extensive use of modern pedagogical models in university-level education contributes significantly to enhancing the effectiveness of the teaching and learning process [1, 2]. According to A. N. Dakhin, an educational model is defined as "a logically consistent system of interrelated elements, including educational goals, content, pedagogical technology design, educational process management technologies, curricula, and programs" [3].

Pedagogical modeling enables the creation of abstract or visual representations, often in the form of conceptual schemes that describe and analyze specific aspects of the educational process. Through modeling, the educational process can be optimized, leading to improved learning outcomes and instructional efficiency. This approach represents a comprehensive method that encompasses the design, investigation, and development of educational technologies. Moreover, the active integration of information and communication technologies in modern pedagogy has led to the emergence of new types of pedagogical models. For instance, multimedia didactic models, where instructional tools such as computers, simulation software, and comprehensive educational and methodological support play a central role, have been shown to enhance the effectiveness of training highly qualified specialists [4, 5].

Unlike educational models, which encompass the educational process in its entirety, a learning model refers more specifically to an approach for organizing interactions between the subjects of the educational process, namely, the teacher and the student. Any learning model represents an idealized system that reflects a real pedagogical situation; therefore, any modification or enhancement of this system results in the emergence of a new model distinct from the previous one. Consequently, from a theoretical perspective, an extensive variety of learning models exists, many of which differ only in minor aspects.

A number of scholars, including Sagimin S.F., Casey A., Pisarenko V.I., Maloshonok N.G., Avtandilyan E.A., and Ananishnev V.M., have proposed and examined diverse learning and educational models [6–11]. Among the most widely recognized are:

- **passive and active learning models**, based on subject–object relationships in which the teacher functions as the primary subject of the educational process and students act as objects;
- **interactive learning models**, grounded in subject–subject relationships, where both teacher and student are active and equal participants in the educational process;
- **the developmental learning model**, derived from the theory of developmental education;
- **the problem-based learning model**, in which problem-based learning serves as the principal instructional method;
- **the game-based learning model**, employing didactic games as the main instructional tool;
- **the cybernetic model of education**, based on a cybernetic approach to organizing and regulating the educational process;

student-centered and educationally oriented models, which emphasize learners' individual needs, autonomy, and active engagement.

Among the learning models discussed above, the **passive learning model** is grounded in a subject–object relationship between the teacher and the students. In this model, the teacher acts as the primary subject of the educational process, while students collectively function as objects of instruction. The flow of information is predominantly one-way—from teacher to students—with limited opportunities for feedback, interaction, or active student participation during the lesson.

The **active learning model** is also based on a subject–object relationship; however, it differs fundamentally from the passive model in its focus on the individual learner rather than the class as a whole. In this model, each student becomes the object of targeted pedagogical influence. The teacher actively engages with students on an individual basis, seeking to enhance their involvement in the learning process. Instruction is differentiated: tasks are assigned according to each student's level of knowledge, skills, and practical abilities, and the teacher continuously monitors and supports their progress. As a result, students with a strong academic background are challenged through more complex tasks that foster further development, while students with weaker preparation receive appropriately scaffolded activities that help them achieve the expected learning outcomes. This individualized approach promotes balanced progress across the classroom and helps reduce learning gaps among students.

The **interactive learning model** is conceptually different from the passive and active models in that it is grounded in a subject–subject relationship between the teacher and students. Within this framework, both parties act as full participants in the educational process, and pedagogical interaction is multidirectional: learning activities are initiated and shaped not only by the teacher but also by the students. As a result, learners are actively involved in planning, organizing, and evaluating their own learning activities. They are encouraged to make informed choices regarding instructional methods, learning tools, and resources that align with the objectives of a given topic. In this model, the role of the teacher shifts from that of a primary source of knowledge to that of a facilitator, mentor, and guide who supports students' independent and collaborative learning. The teacher primarily functions as an organizer and coordinator of students' educational activities, creating conditions for meaningful interaction and self-directed learning. At the same time, implementing the interactive learning model requires a high level of pedagogical competence and sustained effort from the teacher, particularly in designing differentiated learning pathways for students with diverse levels of

knowledge and cognitive abilities. To achieve these aims, teachers actively employ a range of instructional and technical tools, including information and communication technologies, electronic educational resources, and Internet-based platforms.

Materials and Methods

This paper examines key aspects of the application of educational models aimed at enhancing the effectiveness of the educational process in higher education institutions. Among the models widely used in educational practice, particular attention is given to the structural pedagogical model, which identifies the components of a pedagogical object or phenomenon and clarifies the relationships among them.

Through an experimental study, the levels of English language proficiency and practical communicative skills of third- and fourth-year undergraduate students majoring in Internet Journalism, International Journalism, Public Relations, and Printed Press were investigated. The participants were students of the Faculty of Foreign Languages at the University of Journalism and Mass Communications of the Republic of Uzbekistan. The instructional intervention was based on the use of longreads in English language classes. The longreads developed for the study combined textual content with diverse multimedia elements and were designed using authentic materials from "The Guardian" newspaper.

Based on the analysis of the experimental results, a structural model for teaching English through the longread information delivery format was developed. This model represents an integrated system of interrelated components that ensure the effective organization and implementation of the learning process for students in journalism- and communication-related majors.

Results and Discussion

Currently, the higher education system employs a wide range of pedagogical models that reflect various aspects of the educational process [12–15]. These models are continuously refined on the basis of modern and advanced pedagogical technologies, and new models are regularly developed. However, many of them encounter limitations in terms of their large-scale implementation. For instance, a teacher-researcher may design a learning model to test a specific scientific hypothesis within a particular discipline. While such an experimental model may prove effective for research purposes, it is often not transferable to the general educational process due to contextual, organizational, or methodological constraints.

In educational practice, pedagogical models serve multiple functions: they facilitate the representation of innovative pedagogical experience, support the study of pedagogical phenomena, and contribute to the development and validation of pedagogical ideas. If pedagogical research is understood as focusing on both pedagogical objects or phenomena and the processes associated with them, it becomes reasonable to consider models that enable the examination of both structural characteristics and functional dynamics. Moreover, it can be assumed that integrated models are possible—those that simultaneously reflect a pedagogical phenomenon and the mechanisms of its functioning within the educational process.

Based on the objectives of pedagogical research and the specific characteristics of pedagogical phenomena, three main types of models can be distinguished in pedagogical modeling [11]. The first is **the functional pedagogical model**, which reflects the sequence of instructional actions and operations that lead to the achievement of defined learning outcomes. The second is **the essential (conceptual) pedagogical model**, which consists of a system of interrelated blocks whose content informatively represents the key conceptual characteristics of the phenomenon under study—from methodological foundations and theoretical approaches to the technological features of its implementation. This type of model reveals the underlying ideas and principles that determine the nature of a pedagogical object or phenomenon. The third type is **the structural pedagogical model**, which focuses on identifying the elements or components of a pedagogical object or phenomenon and clarifying the relationships between them. Its primary purpose is to analyze structural characteristics and ensure the possibility of reproducing the model under new educational conditions.

Structural models are intended for the design, analysis, and representation of the components of a pedagogical phenomenon or process. Their main function is to identify and systematize the key elements that constitute a pedagogical system and to describe the interconnections among them. Such models may be applied to the study of both pedagogical phenomena and instructional processes. For instance, a structural model of a foreign language teaching system enables a clear representation of its core components and their interaction. If a teacher develops and experimentally validates a new instructional method that demonstrates positive learning outcomes, it becomes necessary to formally describe and present this method for dissemination within the professional community. In this context, structural modeling plays a critical role, as it provides a clear and systematic representation of the method's conceptual foundations and the logical sequence of instructional actions, thereby facilitating its broader adoption and evaluation.

To elucidate the essence of a newly developed teaching method, it is essential to describe the components involved in its implementation. A structural model serves this purpose effectively by representing all the components and the relationships between them. As noted by Professor E.A. Solodova, “A structural model represents the object being studied as a specific structure, most often a system. It consists of distinct elements interconnected through various positive and negative feedback loops, possessing emergent properties—attributes not inherent in any individual element” [16]. Constructing such a model requires identifying the elements that constitute the object and establishing the relationships between them.

The primary purpose of a structural model is to describe the components that comprise the phenomenon under study and to facilitate the implementation of the associated process. For instance, a structural model of a pedagogical system for teaching foreign languages outlines the essential components required for effective implementation, specifying the participants, materials, and resources necessary to organize the process. Developing a structural pedagogical model typically involves three key steps:

1. Defining the elemental or component composition of the pedagogical object or phenomenon. When focusing on finer details, these are termed elements; when addressing broader aspects, they are referred to as components, which may further include sub-elements or sub-components within the model.
2. Establishing connections and hierarchies among the elements and components to illustrate their interrelationships and functional dependencies.
3. Considering the visual representation and design of the model, ensuring that the spatial arrangement and presentation accurately reflect the relationships between elements and components.

Consequently, a structural model of a pedagogical object or phenomenon represents a coherent system of elements or components essential for its existence and functioning, while clearly depicting the interconnections that define its structure.

The study involved 45 third- and fourth-year students majoring in internet journalism, international journalism, public relations, and print media. Participants were divided into a control group (22 students) and an experimental group (23 students). The longread text used in the study, which students both read and listened to, was sourced from The Guardian newspaper, a publication particularly suitable for journalism education. This longread served as a pedagogical tool that could be effectively utilized both in classroom settings and for independent study. The content and multimedia elements of the longread article were designed to engage students actively, stimulate cognitive activity, and enhance motivation and interest in learning English within the context of their professional field.

The first task is to discuss the picture in Fig. 1.



Fig. 1. Photograph: Sean Gallup/Getty

Task 1. Look carefully at the picture

- a) Observe all the details such as people, objects, background, colors, and actions.
- b) Describe what you see. Use complete sentences to explain the main elements in the picture. For example, who is in the picture? What are they doing? Where might the scene take place?
- c) Share your opinions and thoughts. Say what you think about the picture. Does it remind you of anything? What feelings does it evoke?

d) Ask and answer questions. Discuss with your partner or group by asking questions about the picture. For example:

- What do you think is happening?
- Why do you think the people are behaving this way?

The second task is to read the article.

Task 2. Reading

"Climate crisis making world's forests shorter and younger, study finds" The Guardian

Climate breakdown and the mass felling of trees has made the world's forests significantly shorter and younger overall an analysis shows. The trend is expected to continue, scientists say, with worrying consequences for the ability of forests to store carbon and mitigate the climate emergency and for the endangered wildlife that depends on rich, ancient forests. The analysis of more than 150 previous studies found the death rate of trees has increased, doubling in North America and significantly increasing in the Amazon, for example. The impact of forest destruction had cut the area of old growth forest by a third since 1900, the researchers said. But rising temperatures caused by global heating also cuts growth and increases tree deaths by limiting photosynthesis and causing stress. Furthermore, high temperatures, drought, high storm winds and pests and disease affect older trees more and are all on the rise. Tom Pugh, a scientist at the University of Birmingham, UK, said: "Our study reviews mounting evidence that climate change is accelerating tree mortality, increasingly pushing the world's forests towards being both younger and shorter. "They have been getting smaller and younger over the last century, primarily because of the effects of human land use change, and disturbances like wildfires and insect outbreaks and droughts. These are things that are increasing in frequency and severity."

There were exceptions, Pugh said, such as forests in high latitudes: "But in a world that's generally hotter, more of the world will be covered by forests that are generally shorter."

The third task is to listen and fill in the gaps with the missing words.

Task 3. Listening

Listen to the text and fill in the gaps.

Climate breakdown and the 1_____ felling of trees has made the world's forests significantly shorter and younger overall an analysis shows. The 2_____ is expected to continue, scientists say, with worrying consequences for the ability of forests to 3_____ carbon and mitigate the climate emergency and for the endangered wildlife that depends on rich, 4_____ forests. The analysis of more than 150 previous studies found the death rate of trees has increased, doubling in North America and 5_____ increasing in the Amazon, for example. The impact of forest 6_____ had cut the area of old growth forest by a third since 1900, the researchers said. But rising temperatures caused by global heating also cuts growth and increases 7_____ deaths by limiting photosynthesis and causing stress. Furthermore, high temperatures, drought, high storm winds and pests and 8_____ affect older trees more and are all on the rise. Tom Pugh, a scientist at the University of Birmingham, UK, said: "Our study reviews mounting evidence that climate change is accelerating tree mortality, increasingly pushing the world's forests towards being both younger and shorter. "They have been getting smaller and younger over the last 9_____, primarily because of the effects of human land use change, and disturbances like wildfires and insect outbreaks and droughts. These are things that are increasing in frequency and severity."

There were exceptions, Pugh said, such as forests in high 10_____: "But in a world that's generally hotter, more of the world will be covered by forests that are generally shorter."

The fourth task is analyzing the article.

Task 4. Article discussion

Answer the following questions based on the text:

- a) What has made the world's forests shorter and younger?
- b) How has the death rate of trees changed in North America and the Amazon?
- c) Why do high temperatures increase tree deaths?
- d) What has happened to old growth forests since 1900?
- e) Who said that climate change is accelerating tree mortality?

(The answers a) Climate breakdown and the mass felling of trees.

b) It has doubled in North America and significantly increased in the Amazon.

c) Because they limit photosynthesis and cause stress to trees.

d) Their area has been cut by a third.

e) Tom Pugh, a scientist at the University of Birmingham, UK.)

The fifth task is speaking.

Task 5. Speaking

In 5 minutes be ready to make a topic following the questions:

What is climate change and what causes it?

How does climate change affect our planet and daily life?

Why is it important to take action against climate change now?

What can governments and organizations do to reduce global warming?

What can each of us do in our daily lives to help protect the environment?

The sixth task is in writing

Task 6. Write a Review about the article

Write a short review (about 100–150 words) based on the article **“Climate crisis making world’s forests shorter and younger, study finds” The Guardian.**

Your review should include:

Title of the article and author’s name (if given).

Main idea of the article (What is it about?).

Key points or arguments presented by the author.

Your opinion about the article (Do you agree or disagree? Why?).

Conclusion – summarize your thoughts briefly.

Language tips:

Use linking words like firstly, however, in my opinion, to conclude.

Write in formal or semi-formal English. Avoid copying sentences directly from the article – use your own words.

The results indicated that the knowledge and practical skills of students in the experimental group, who engaged with English language instruction through Longreads, were significantly higher than those of students in the control group, who participated in traditionally structured classes (Table 1). Specifically, students in the experimental group demonstrated a deeper understanding of the course material and greater proficiency in applying their skills in context. These findings suggest that the integration of Longreads as an instructional tool in English language teaching, particularly for students majoring in online journalism, international journalism, public relations, and print media, enhances both engagement and learning outcomes, confirming the effectiveness of this pedagogical approach.

Table 1

Results of the study to determine the English language proficiency level of future journalists studying using Longread materials

Detection experience (Control group - 22 students, experimental group - 23 students) Groups	Groups	Mastery level							
		High		Satisfying		Medium		Low	
		Number of students	%	Number of students	%	Number of students	%	Number of students	%
	Control	2	9,1	7	31,8	9	40,9	4	18,2
	Experimental	5	21,7	12	52,2	5	21,7	1	4,4

Figure 2 illustrates the distribution of English language proficiency levels among students in the control and experimental groups, comparing traditional instruction with Longread-based learning. The data indicate that the proportion of students achieving "high" and "sufficient" proficiency was substantially greater in the experimental group than in the control group. Specifically, 33.3% of students in the experimental group attained a "high" level of proficiency, compared to only 9.1% in the control group. Likewise, 52.2% of students in the experimental group demonstrated "sufficient" proficiency, whereas this figure was 31.8% in the control group.

Conversely, the proportion of students with "intermediate" and "low" proficiency was notably higher in the control group. In the control group, 40.9% of students were classified as "intermediate," compared to 21.7% in the experimental

group. Additionally, 18.2% of students in the control group exhibited "low" proficiency, whereas only 4.4% of students in the experimental group fell into this category.

These results indicate that English language instruction organized using Longreads was more effective than traditional teaching methods, particularly in enhancing the engagement and learning outcomes of students majoring in online journalism, international journalism, public relations, and print media.

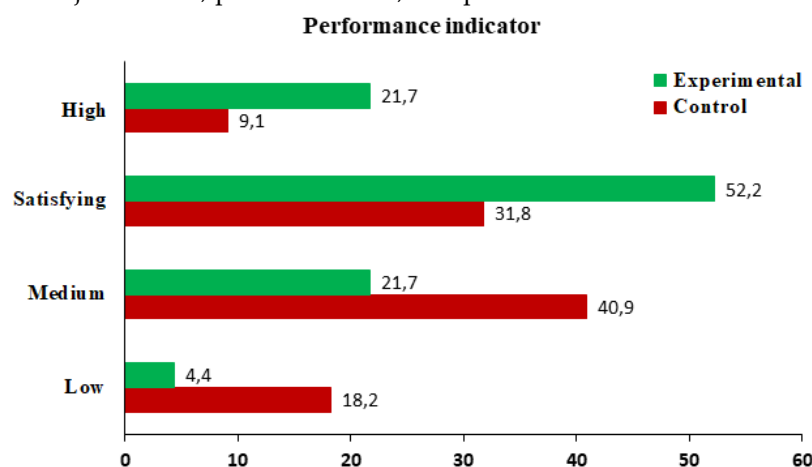


Figure 2. Performance of students in the control and experimental groups in lessons organized around long reading texts.

These results underscore the effectiveness of an integrated approach to teaching English in contemporary higher education, particularly when using materials sourced from English-language periodicals. Longread texts, when supplemented with audio and video components, provide rich vocabulary exposure and multimodal input, which significantly enhances student engagement and motivation. This approach encourages students to study English in conjunction with other professional subjects, fostering a deeper and more critical understanding of the material. Moreover, the use of such materials facilitates the comprehensive development of students' knowledge and skills. Integrated learning activities organized around longread articles enable students to consolidate the professionally relevant competencies and qualifications acquired during their studies, applying them cohesively in practical and academic contexts.

Figure 3 illustrates a structural model of English language teaching based on Longreads, developed through the present study. The model identifies the key objectives and critical aspects that both teachers and students must consider when selecting, preparing, and utilizing Longread articles in English lessons, as well as the interrelationships among these elements. Implementing this model requires teachers to demonstrate advanced professional competencies, including the ability to select appropriate topics, conduct thorough research using multiple sources, and prepare well-structured textual materials. Additionally, teachers are responsible for integrating relevant multimedia elements into the Longread materials, ensuring that the combination of text, audio, and visual content enhances comprehension and engagement. Throughout this process, careful attention to the logical connections and coherence between the various components is essential to maximize the effectiveness of Longread-based instruction.

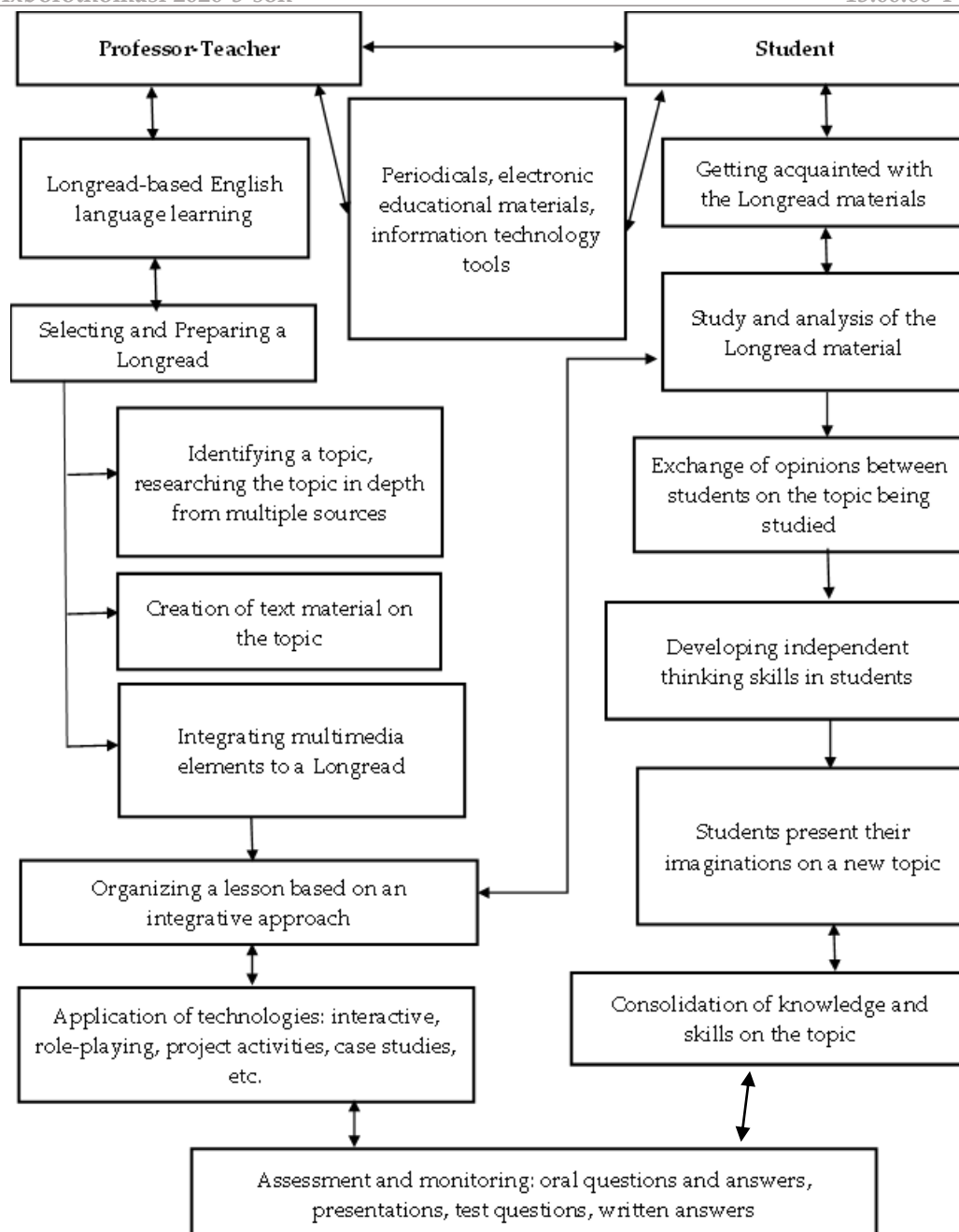


Figure 3. Structural model of Longread-based English language teaching

Conclusion

In conclusion, it should be noted that targeted English language instruction plays a crucial role in the development of professionally relevant language skills and facilitates students' rapid adaptation to the professional environment. An integrative approach to learning promotes self-awareness, critical thinking, and independent learning skills. For students preparing for careers in journalism, specialized English language training is essential for working effectively with information sources, periodicals, and digital learning materials, as well as for expressing ideas clearly and accurately in English. The use of Longread articles from international periodicals has proven particularly effective, providing opportunities to enhance oral communication, professional vocabulary, subject-specific terminology, and overall communicative competence. A structural model of a pedagogical object or phenomenon represents the set of elements or components necessary for its existence and functioning, while clearly illustrating the interrelationships among these elements. Building on this framework, our study developed a structural model of English language teaching based on Longreads, which defines the essential components and their relationships, thereby supporting the implementation of an integrative and professionally oriented approach to teaching English to journalism students.

References

1. Camacho Vásquez, G., Díaz Pareja, E.M., Ortega Tudela, J.M. Pedagogical Models in Teachers' Education on the Use of Technology for English Teaching: A Systematic Review // *Zona Próxima*, 2024. 41. pp. 66-88. doi:10.14482/zp.41.852.963
2. Zimmer, W. K., & Matthews, S. D. (2022). A virtual coaching model of professional development to increase teachers' digital learning competencies // *Teaching and Teacher Education*, 2022. 109(9):103544. doi.org/10.1016/j.tate.2021.103544
3. Daxin A.N. Pedagogicheskoye modelirovaniye: sushnost, effektivnost i... neopredelennost // *Pedagogika*. 2003. № 4. s. 21–26.
4. Monginho, R., Bent, M., Velasquez-Godinez, E., Van Steenberg, R. (2022). Video-based collaborative learning: a pedagogical model and instructional design tool emerging from an international multiple case study. *European Journal of Teacher Education*, 1–25. <https://doi.org/10.1080/02619768.2022.2086859>
5. Chen, W., Tan, J.S.H., & Pi, Z. The spiral model of collaborative knowledge improvement: an exploratory study of a networked collaborative classroom // *Intern. J. Comput.-Support. Collab. Learn.* 2021. 16. pp. 7-35. <https://doi.org/10.1007/s11412-021-09338-6>
6. Sagimin S.F. and Abdulwahab M.N. Models of Education: In-Depth Review // *International Journal of Education and Learning* Vol.4, No.2 (2015), pp.1-8 <http://dx.doi.org/10.14257/ijel.2015.4.2.01>
7. Casey A., & Børke L. Teachers' experiences of enacting pedagogical models and models-based practice: a systematic mixed study review // *Physical Education and Sport Pedagogy*. 2024. pp. 1-17. <https://doi.org/10.1080/17408989.2024.2415325>
8. Maloshonok N.G., Sheglova I.A. Modeli organizatsii obucheniya studentov v universitete: osnovnie predstavleniya, preimushchestva i ogranicheniya // *Universitetskoye upravleniye: praktika i analiz*. 2020. Tom 24. № 2. S. 107-120. DOI 10.15826/umpa.2020.02.017
9. Avtandilyan Ye.A. Formirovaniye sovremennix obrazovatelnix modeley i prinsipi obucheniya v tvorchestve Ya.A. Komenskogo (v kontekste sozdaniya prostranstva doveritelnoy kommunikatsii) // *Professionalnoye obrazovaniye v sovremennom mire*. 2018. T. 8. № 2. S. 1868–1875 DOI: 10.15372/PEMW20180215
10. Ananishnev V. M. Modelirovaniye v sfere obrazovaniya // *Sistemnaya psixologiya i sotsiologiya*. 2010. T. 1, № 2. s. 67-84
11. Pisarenko V.I. Pedagogicheskiye modeli: tipologiya i osobennosti // *Problemi sovremennogo obrazovaniya*. 2024. № 1. S. 58–76. DOI: 10.31862/2218-8711-2024-1-58-76.
12. Songkram, N., & Chootongchai, S. Effects of pedagogy and information technology utilization on innovation creation by SECI model // *Education and Information Technologies*. 2020. 25(5), pp. 4297-4315.
13. Aniol A.V. Modelirovaniye i naglyadnost v obuchenii inostrannomu yaziku studentov neyazikovix vuzov // *Obrazovatelnie resursi i texnologii*. 2016. №3(15). s. 14-25.
14. Abramova M. A. Modelirovaniye kak metod issledovaniya // *Meridian*. 2017. № 4 (7). S. 148–150.
15. Moxova O.L., Barishnikova O.V., Yaroslavskaya I.I., Sachkova Ye.V. Integratsiya adaptivnix obrazovatelnix texnologiy v prepodavaniye angliyskogo yazika v neyazikovix vuzax: eksperimentalnoye issledovaniye effektivnosti // *Management of Education*. 2025. Tom 15. №3-1. s. 158-170.
16. Solodova Ye.A. Novie modeli v sisteme obrazovaniya: Sinergeticheskiy podxod: ucheb. posobiye. M.: Kn. dom «LIBROKOM», 2013. 344 s.