scientific conferences

VI international scientific conference
Lisbon. Portugal
28-29.04.2026

Scientific conferences

EXPLORING THE UNKNOWN: SCIENCE, IMAGINATION, DISCOVERY

Proceedings of the VI International Scientific and Practical Conference

28-29 April 2026

LISBON. PORTUGAL

2026

UDC 001.1

BBC 1

VI International Scientific and Practical Conference «Exploring the unknown: science, imagination, discovery», April 28-29, 2026, Lisbon. Portugal. 156 p.

ISBN 978-91-65424-70-8

DOI https://doi.org/10.5281/zenodo.20039718

Publisher: «SC. Scientific conferences»

Main organization: artmedia24

Editor: Hans Muller

Layout: Ellen Schwimmer

The sample of the citation for publication is Gugnin Aleksandr, Lisnievska Yuliia ANTI-ADVERTISING IN THE HOTEL BUSINESS // VI International Scientific and Practical Conference «Exploring the unknown: science, imagination, discovery», April 28-29, 2026, Lisbon. Portugal. Pp.9-11, URL: https://sconferences.com

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COMMERCIAL FISH PRODUCTION AND COMMERCIAL AQUACULTURE IN KAZAKHSTAN

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Abstract

This article examines the current state and development prospects of commercial fish production and capture fisheries in Kazakhstan. The relevance of the topic is determined by the significant role of fish products in a healthy diet structure and ensuring the country's food security. The author presents a classification of the main methods of fish harvesting and farming: capture fisheries, pond and cage aquaculture, and the industrial method using Recirculating Aquaculture Systems (RAS). The potential of Kazakhstan's major fishery water bodies (the Caspian and Aral Seas, Lakes Balkhash, Zaisan, Alakol, and the Kapshagai Reservoir) is characterized. An analysis of the industry's current state is conducted, including the regional distribution of fish farms and state support measures provided for by the Fishery Development Program for 2021–2030. Based on a comparative analysis with leading foreign countries (China, Norway, Indonesia, etc.) and neighboring states (Uzbekistan, Kyrgyzstan), the features of the relationship between capture fisheries and aquaculture production are identified. Special attention is paid to the high nutritional and biological value of fish products, confirmed by references to international studies. The conclusions highlight Kazakhstan's significant but underutilized water and export potential, as well as the positive dynamics of the industry's growth (increase in catch, processing, and export volumes) due to the implemented state support measures. The necessity of increasing domestic production volumes to improve the population's nutritional structure and strengthen the country's food independence is emphasized.

Keywords: Aquaculture in Kazakhstan, industrial fishing, aquaculture exports, government support measures, cage fish farming

Introduction.

Aquaculture products play a vital role in the human diet. This is due to both the morphological characteristics and chemical composition of fish and other aquatic species. The diet of many island nations and countries with access to the open seas is based on the consumption of fish products; furthermore, for some countries, fishing is a key economic sector.

There are four types of fish harvesting:

- *Commercial fishing*
- *Pond farming*
- *Cage farming*
- *RAS – recirculating aquaculture systems.*

Commercial fishing is possible in open seas and oceans, as well as in closed water bodies, where the catch of aquatic organisms is regulated by quotas and other regulations. Kazakhstan has five large bodies of water suitable for commercial fishing: the Caspian and Aral Seas, Lakes Balkhash, Zhaisan (Zaisan), and Alakol, and the Kapshagay Reservoir. Fishing in these reservoirs is carried out on an industrial scale by a fishing fleet using nets of the appropriate size.

Pond fish farming is actively developing in the country thanks to the Fish Farming Development Program (2021–2030) (Resolution No. 208 of the Government of the Republic of Kazakhstan dated April 5, 2021 [1]). The Turkestan, Almaty, East Kazakhstan, and Zhambyl regions are the leaders in this area *of activity in the country. For fish farming, the Scientific and Production Center for Fisheries LLC has developed a "fish calculator" that calculates operating costs for each pond fish species, pond volumes, and expected revenues.*

Recirculating aquaculture systems (RCAS) are a highly efficient method of industrial fish farming under controlled conditions. This farming method is characterized by compact production space, high intensity, rapid return on investment, minimized environmental impact, water conservation, and high fish stocking density. The production cycle lasts approximately 240 days from the introduction of fry and/or fingerlings (depending on the species). These systems are also used for quarantine measures when stocking Kazakhstan's water bodies with commercial and/or invasive fish species.

The benefits of consuming fish products have been widely discussed. For example, Sana Noreen of the Institute of Dietetics and Nutrition at the University of Lahore (Pakistan) and her international colleagues write that fish is an important source of high-quality protein, essential fatty acids (especially omega-3 fatty acids), vitamins, and minerals, making it vital for maintaining overall health, supporting brain function, the cardiovascular system, and stimulating growth and development. It also helps prevent chronic diseases such as heart disease, diabetes, and cognitive decline [3].

Surya Prakash Mishra of the Department of Zoology at Ganpat Sahai PG College in India reports that fish protein contains immunoglobulins, which act as a defense mechanism against viral and bacterial infections and prevent protein-calorie malnutrition. Fish lipids contain Cn-3 polyunsaturated fatty acids, such as EPA and DHA, which not only support blood pressure but also help prevent cardiovascular disease [4].

Koshal Kumar, from the Department of Himalayan Aquatic Biodiversity at H.N.B. Garhwal University in India, concludes his study by stating that aquatic products occupy a significant place in the food industry due to their potential to address global issues related to nutrition, food security, and sustainable development. These "blue foods" are rich in numerous micronutrients, making them crucial for a balanced diet and food sources for low-income populations. Furthermore, these aquatic products have the unique potential to stimulate local and global economies through fisheries and aquaculture in various aquatic systems, which can significantly improve global health and ensure the well-being of both current and future populations [5].

Cage fish farming is one of the promising areas of aquaculture, involving the cultivation of fish in semi-free, controlled conditions in special cages located in fishery reservoirs. As of 2021, 44 cage fish farms are operating, primarily in the East Kazakhstan, Almaty, and Turkestan regions [2]. China is the global leader in this method of fish farming, followed by Indonesia, India, and Vietnam (Table 1). According to this source, only 9,400 tons of fish were farmed in Kazakhstan in 2022. This data differs from official figures from the Kazakhstan National Statistics Bureau, with the Ministry of Agriculture reporting a figure of 20,000 tons starting in 2021. China has the largest catch and production volume, four times larger than second-place Indonesia. Countries with access to the open seas are expected to be among the leaders.

Table 1 – Per capita catch and production of aquatic organisms by country [6].

Rating	COUNTRIES	Total volume, million tons	Commercial fishing, million tons	Aquaculture production		Population size	Tons per person
				Million tons	Share of total volume, %		
1	CHINA	88.6	13.2	75.4	85.1%	1,412,914,089	0.0627
2	INDONESIA	22.0	7.4	14.6	66.4%	287,886,782	0.0764
3	INDIA	15.7	5.5	10.2	65.0%	1,476,725,576	0.0106
4	VIETNAM	8.8	3.6	5.2	59.1%	102,177,431	0.0861
5	PERU	5.54	5.4	0.141	2.5%	34,922,148	0.1587
6	RUSSIA	5.348	5.00	0.348	6.5%	143,394,458	0.0373
7	BANGLADESH	4.700	2.00	2.700	57.4%	177,818,044	0.0264
8	USA	4.779	4.30	0.479	10.0%	349,035,494	0.0137
9	NORWAY	4.200	2.60	1.600	38.1%	5,652,989	0.7430
10	CHILE	4.200	2.70	1.500	35.7%	19,945,850	0.2106
11	PHILIPPINES	4.100	1.80	2.300	56.1%	117,724,471	0.0348
12	JAPAN	3.943	3.00	0.943	23.9%	122,427,731	0.0322
13	SOUTH KOREA	3.700	1.30	2.400	64.9%	51,600,388	0.0717
14	MYANMAR	3.100	1.90	1.200	38.7%	55,184,819	0.0562
15	THAILAND	2.400	1.40	1.000	41.7%	71,559,614	0.0335
68	UZBEKISTAN	0.185	0.055	0.130	70.3%	37,724,223	0.0049
115	**KAZAKHSTAN**	0.052	0.043	0.009	18.0%	20,286,084	0.00257
136	KYRGYZSTAN	0.020	0.0003	0.020	98.5%	7,400,465	0.00274

Norway has the highest annual per capita production rate, with 0.743 tons, of which commercial fishing accounts for 2.6 million tons and aquaculture production for 1.6 million tons, an optimal ratio. In China, aquaculture production exceeds commercial fishing by six times, demonstrating the relative independence of gross fish and other seafood consumption from potential negative impacts of commercial fishing. Chinese fish farming practices are flexible. After extensive use of cage fisheries in coastal waters, which led to ecosystem destruction, they have adjusted and improved their cage fish farming technology in coastal waters.

Shuang-Lin Dong of the Key Laboratory of Mariculture, Ministry of Education, College of Fisheries, Ocean University of China and colleagues concluded that by adjusting the annual growth rates of six out of nine aquaculture systems, energy consumption, nitrogen emissions, land use, and freshwater consumption per unit of mass gain could be reduced by 1.70%, 6.89%, 7.12%, and 8.86%, respectively, by 2050 compared with business-as-usual levels. Due to changes in China's energy supply structure, total CO_2 emissions from aquaculture would increase by only 5.7% by 2050 compared with 2021 levels. After achieving carbon neutrality, the primary focus should be on reducing nutrient emissions [7].

The ratio of aquaculture production to commercial fishing clearly demonstrates the vulnerability of import dependence on fish products and, conversely, the independence and control of food-grade aquatic production on a national scale, which ensures food security.

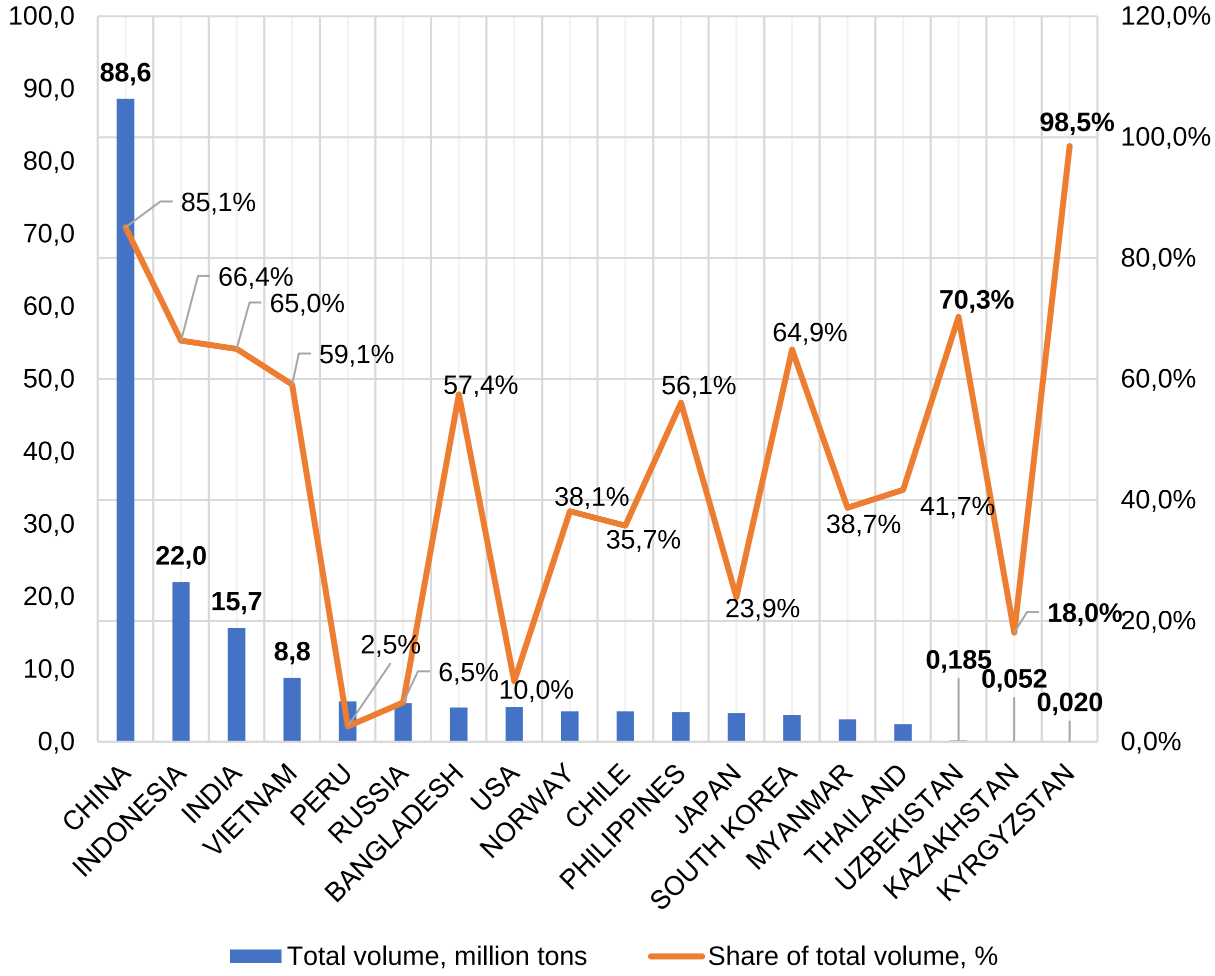

Figure 1 – Aquaculture Production Ratio to Total Volume [6]

The information in Figure 1 demonstrates the vulnerability of countries with low domestic commercial fish production shares, depending on the influence of external factors such as storm surges, intense competition in international waters, fishing quotas, and others. At the same time, countries with access to the open seas and a high share of domestic aquaculture production primarily use cage farming.

Kazakhstan's 115th place and overall score in this ranking are below the margin of error, which is not reflected in the histogram. Uzbekistan produces and catches 3.5 times more fish than Kazakhstan, ranking 68th, despite having no large inland waters. Its share of domestic aquaculture production (70.3%) is second only to the world leader Kyrgyzstan (98.5%) and China (85.1%). A direct comparison of gross production and catch in Kazakhstan, Uzbekistan, and Kyrgyzstan is inappropriate, as the fishing industries in these countries are at different stages and lack consistent parameters.

The data for 2022 for Kazakhstan presented in Table 1 and Figure 1 do not reflect the true picture. Serik Sermagambetov, Chairman of the Fisheries Committee of the Ministry of Agriculture of the Republic of Kazakhstan, reports that Kazakhstan's fishing industry has confidently entered a trajectory of sustainable growth: catch, processing, export, and aquaculture volumes are demonstrating positive dynamics, and government support is strengthening the sector's investment attractiveness. The fish market volume for the first 11 months of 2025 amounted to 76,800 tonnes, 10% higher than the same period last year (69,600 tonnes). During the same period, 38,500 tonnes of fish were caught, also 10% higher than last year. 12.2 thousand tons of fish were grown, an increase of 4% [8].

Conclusions.

WHO recommends consuming at least 16 kg of fish per person annually, but in Kazakhstan this figure is less than 4 kg. In neighboring Russia and China, consumption is 20-40 kg per person, respectively [9]. This, along with significant export potential, is an element of structural change/revival of the Kazakh diet.

With significant aquatic potential for production and commercial fishing, Kazakhstan has the opportunity to increase catch and production volumes by an order of magnitude and become a regional leader in the processed food industry market, including in the domestic market. Moreover, domestic *products have been popular in non-CIS countries for many years, and specialized fish processing facilities are actively developing in the country.*

Government support measures stimulate the industry not only in terms of commercial fish sales but also in its industrial processing into products with higher added value.

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Economic sciences

THEORY AND CONTRADICTIONS OF THE METHOD OF INTERNATIONAL TREATY INTERPRETATION

Agalarova Aynurakhanim Mirimran

Abstract

This article explores the theoretical and methodological inconsistencies in current doctrine of the interpretation of international treaties. It focuses on the normative framework of the interpretive principles enshrined in Articles 31-33 of the 1969 Vienna Convention on the Law of Treaties (VCLT). The author deals in turn with the three traditional interpretive methods - textual, intentionalist, and teleological - revealing the hierarchical problems among them reflected in the Convention, and then moves to the temporal aspect of interpretation in the form of a tension between evolutionary and static methods. Particular focus is placed on the place of subsequent State practice in Article 31(3)(b) VCLT, the use and relevance of travaux préparatoires, and the fragmentation of international law as a systemic problem for uniform interpretive principles. The research builds on seminal works of Gardiner, Linderfalk, Fitzmaurice, Klabbers, and Koskenniemi, and the case law of the International Court of Justice, the WTO Appellate Body and the European Court of Human Rights.

Keywords: interpretation of treaties; Vienna Convention on the Law of Treaties; Article 31 VCLT; teleological method; evolutionary interpretation; travaux préparatoires; fragmentation of international law; subsequent practice; intentionalism; good faith.

I. INTRODUCTION

Interpretation of international treaties remains one of the most vexing areas of the international law doctrine. Although the rules of interpretation are codified in Articles 31-33 of the Vienna Convention on the Law of Treaties of 1969 (hereafter VCLT or Convention), there is still no clear consensus in the academic literature on the nature, hierarchy and interaction of the various methods of interpretation. The interpretative process is still a battleground of theories that give rise to what has been aptly called a "meta-debate" - a debate on how to apply the rule of interpretation (Maisley ,2024).

The nature of treaty interpretation as science or an art remains unresolved. In considering this conundrum in his 2015 article "Is Treaty Interpretation an Art or a Science?", Ulf Linderfalk suggests that international law in the realm of interpretation is a form of "relational decision-making", where the textual, contextual and purposive interpretations are inextricably intertwined (Linderfalk, 2015).This proposition mirrors the dilemma faced by international courts, which must decide between respect for the text of the treaty and ensuring the treaty"s effective functioning in a changing world.

The relevance of these questions is determined by a number of factors. First, there are now a significantly larger number of international treaties in operation, which have created overlapping and competing regimes and norms. Second, different international adjudicatory bodies - the International Court of Justice (ICJ), the Appellate Body of the World Trade Organisation (WTO), the European Court of Human Rights (ECtHR) and international investment arbitration tribunals - have established their own interpretive practices, which often clash. Third, the International Law Commission (ILC) in its 2006 study on the Fragmentation of International Law found that different interpretive practices are a source of uncertainty in international law (Koskenniemi, 2006).

This article aims at offering a comprehensive analysis of the theoretical basis underlying interpretive methodology, and of its key contradictions. The author successively considers the three traditional approaches to treaty interpretation, debates their ranking in the VCLT hierarchy, the temporal dimension of interpretation and the fragmentation of interpretive standards. The article uses both doctrinal and case law analysis.

II. NORMATIVE FRAMEWORK: ARTICLES 31-33 VCLT

2.1. General Characteristics

Three articles of the 1969 Vienna Convention on the Law of Treaties, which came into force on 27 January 1980, codified rules of interpretation. Article 31 sets out the "General Rule of Interpretation" that a treaty shall be interpreted "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose". Article 32 applies to "Supplementary Means of Interpretation" (mainly preparatory work (travaux préparatoires) and the *circumstances of the treaty"s conclusion). Article 33 governs the interpretation of treaties in two or more languages.*

As Richard Gardiner notes, the Article 31 process of interpretation is a "process of progressive encirclement": the interpreter starts with the ordinary meaning of the words used in the treaty, considers the context, and progressively narrows in on the correct interpretation in light of the object and purpose of the treaty(Gardiner, 2010). Importantly, the Convention does not elevate one of the three elements of Article 31(1).

Since the Convention"s adoption, its rules of interpretation have been recognised as a codification of customary international law, endorsed by the practice of the International Court of Justice - particularly in the Territorial Dispute (Libya/Chad, 1994) and Kasikili/Sedudu Island (Botswana/Namibia, 1999) cases.

2.2. The Hierarchy of Articles 31 and 32

A key issue in dispute is the relationship between the primary and supplementary means of interpretation set out in Articles 31 and 32. The textual hierarchy in the Convention means that a reference to the travaux préparatoires is conditional upon confirmation of a meaning under Article 31, or avoidance of ambiguity or a manifestly absurd or unreasonable result.

However, in practice international courts follow a different approach. As Linderfalk notes in his article "Is the Hierarchical Structure of Articles 31 and 32 of the Vienna Convention Real or Not?", despite the formal hierarchy, in practice international courts not only use preparatory works where the outcome of the Article 31 interpretation creates an ambiguity, but even where it does not, as a collateral and not a subsidiary means.

III. THE THREE TRADITIONAL APPROACHES TO TREATY INTERPRETATION

3.1. The Textual Approach

The textual - or "linguistic" - approach postulates that the meaning of a treaty is exclusively established by its text. As Malgosia Fitzmaurice points out, this - also known as the "ordinary meaning" - approach is premised on the notion that the words of the treaty reflect the true intentions of the parties: the text is therefore the starting point and, ideally, the only source of interpretation.

The textual approach is justified by the stance of the ILC taken during the drafting of the VCLT: the words of the treaty are presumed to be the authentic expression of the parties" shared intention and interpretation should start and, if possible, stop at the level of the text. This approach ensures predictability and certainty because it limits the discretion of the interpreter.

However, the textual approach has significant shortcomings. Treaty words are seldom clear, and the choice of an "ordinary meaning" is always contextual. As Sir Gerald Fitzmaurice noted as far back as 1951, "purely textual" interpretation is a mirage: all interpretation of a text is already contextual and conventional.

3.2. The Intentionalist Approach

The intentionalist model prioritises the reconstruction of the intentions of the treaty parties at the time of treaty adoption. This approach views the text of a treaty as an imperfect expression of the State will and allows for wide resort to preparatory materials, diplomatic correspondence and other evidence of the negotiating process.

The concept of party intention is hinted at in Article 31 VCLT: parties can agree on a particular meaning of a term (Article 31(4)) and subsequent practice and agreement are considered in determining what constitutes the "authentic" meaning of a treaty. But as rightly pointed out by Gardiner, the notion of "party intention" often represents an illusion in relation to multilateral treaties to which scores of States with different legal systems are parties.

This is especially true with respect to travaux préparatoires. According to the traditional doctrine (reproduced in Gardiner"s article): "Statements of individual parties during the negotiations are themselves of small value in the absence of evidence that they were assented to by the other parties" (Gardiner, 2010). Despite this warning, it is clear that international judicial practice demonstrates a general (and often excessive) reliance on these documents.

3.3. The Teleological Approach

The teleological approach emphasises the object and purpose of the treaty. Its origins can be traced back to the Harvard Draft Convention on the Law of Treaties of 1935 and its systematisation by Sir Gerald Fitzmaurice in his 1951 classification of methods of interpretation, both of which preceded the codification of the VCLT.

This approach has been most fully elaborated in the jurisprudence of the European Court of Human Rights (which has elaborated the doctrine of the "living instrument"). The European Convention of

Human Rights is to be interpreted in light of the circumstances of the time of application, rather than the time of adoption. This method assumes that teleological considerations are dynamic: they change along with the values and norms of the international society.

Some commentators, such as Jan Klabbers, caution against the risks of "virtuous interpretation": the teleological method allows for the substitution of the intent of the treaty"s State parties with the discretion of an international court, giving rise to a meaning of treaty rules that was not envisaged at the time of their adoption (Klabbers,2010). This debate between a "conservative" concern for sovereign will and a "progressive" effective development of treaty law is one of the defining disputes of the modern era.

IV. THE TEMPORAL DIMENSION: INTERPRETATION IN TIME

4.1. Framing the Problem

The question as to which law and which language should be applied in the process of interpretation - that in force at the time of the treaty"s conclusion or at the time of the treaty"s application - is what Linderfalk refers to as the "temporal dimension of interpretation". This has two features: first, the question of which rules of interpretation to apply; and second, the question of whether, under the applicable rules of interpretation, the interpreter should apply the contemporary language and international law or those that existed at the time the treaty was concluded.

The doctrine of intertemporal law, as developed by Arbitrator Huber in the Island of Palmas award (1928), suggests that a juridical fact should be viewed in the light of the law in force at the time. If applied to treaties, this would mean that the meaning of words should be determined as they were understood at the time the treaty was concluded - the "static" or "contemporaneous" method.

4.2. Evolutionary Interpretation

The opposite proposition of "evolutionary" or "dynamic" interpretation is entrenched in theory and practice. The doctrine"s theoretical underpinning rests on the assumption that treaty parties, when using open-textured ("generic") concepts, are assumed to have intended those concepts to be filled with the content at the time of interpretation.

The ICJ, in its Navigational and Related Rights case (Costa Rica v. Nicaragua, 2009), stated the test: where a treaty term is "generic" and the parties intended to confer an evolutionary meaning on it, the interpreter is entitled to take subsequent developments in international law and practice into account. Where, however, the term has been given a precise meaning, the interpreter must stick to that.

Eirik Bjorge, in his monograph The Evolutionary Interpretation of Treaties (OUP, 2014), claims that evolutionary interpretation is not a break from VCLT principles but rather their application: Article 31(3)(c) explicitly prescribes that account be taken of "any relevant rules of international law applicable in the relations between the parties", which leaves a door open for the integration of later developments.

Controversy continues, however, over the limits of evolutionary interpretation. Linderfalk (2008), in "Doing the Right Thing for the Right Reason", argues that the decision between evolutionary and static methods must be made in accordance with the "presumed intention" of the treaty parties rather than on the basis of abstract notions of justice or effectiveness.This is a demand that in practice brings the evolutionary method very close to the intentionalist one, in that the interpreter must pay close attention to the history and context of the treaty negotiations.

V. INTERPRETATION OF TREATIES THROUGH SUBSEQUENT STATE PRACTICE

The VCLT"s Article 31(3)(b) provides that account shall be taken of "any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation". This rule, theoretically, allows the evolution of treaty obligations without amending the treaty.

The ICJ in Kasikili/Sedudu Island (1999) clarified the conditions for the practice: it must be intentional (that is, connected to the party"s intention that its practice reflected an interpretation of the treaty) and consistent, with a certain level of frequency. It is worth noting that in that case the Court found that the practice at issue did not establish any agreement between the parties on interpretation.

Literature discusses the link between "subsequent practice" in the sense of Article 31(3)(b), resulting in a modification of treaty obligations in interpretation, and modification. As Fitzmaurice and Merkouris (2013) note, this is a conceptually unstable line: the effect of consistent contrary practice over time may be to change the original meaning of the treaty, but this will not be recognised as a modification of the treaty. This inconsistency has important ramifications for the stability of international legal obligations.

This was the subject of the ILC"s work on "Subsequent Agreements and Subsequent Practice in Relation to the Interpretation of Treaties", which resulted in a series of draft conclusions that aim to *clarify the circumstances and consequences of subsequent practice (an exercise that is itself symptomatic of the confusion surrounding this interpretive tool).*

VI. FRAGMENTATION OF INTERNATIONAL LAW AND THE UNIFORMITY OF INTERPRETATION

The fragmentation of international law is a major threat to interpretive methodology - the emergence of a range of specialised treaty regimes (world trade law, investment protection law, human rights, international environmental law), each with its own interpretive norms and practices.

The ILC Study Group chaired by Martti Koskenniemi, in its 2006 report (UN Doc. A/CN.4/L.682) concluded that the expansion of specialised treaty regimes creates a risk of normative conflict and competition. The key provision for securing systemic integration is Article 31(3)(c) VCLT, which mandates that consideration be given in interpreting treaties to "any relevant rules of international law applicable in the relations between the parties"

The ILC report referred to Article 31(3)(c) as the "master-key" to systemic integration in international law. But its application is fraught with a number of questions: what norms are "relevant" to the interpretation; do they need to be in force between all treaty parties or only the disputing parties; and how is a conflict between the "external" norms and the interpreted treaty resolved?

Julian Arato"s 2010 article "Subsequent Practice and Evolutive Interpretation" shows that international courts have different approaches to resolving these issues: the WTO Appellate Body is a strict textualist; the ECtHR is a teleological evolutivist; and the ICJ is a moderate synthetic. This variation erodes certainty in the international law; and gives rise to "meta-debates" about the interpretation of the rules of interpretation.

The fragmentation problem is also connected with the problem of hierarchy between norms: jus cogens, obligations erga omnes, and Article 103 of the UN Charter constitute a privileged category of international law that prevails in the case of conflict. Their role in interpretation in relation to ordinary treaty rules, however, is still under-developed.

VII. PRINCIPAL METHODOLOGICAL CONTRADICTIONS

The analysis above allows the identification of four main contradictions that remain unresolved in the current doctrinal and normative framework.

The first relates to the process of interpretation. Is it the application of pre-existently given rules (a normative approach) or a discretionary judgment made to appear, retrospectively, like a legal argument (a realist approach)? The articles in the Fordham International Law Journal describe the stance of "traditional approaches" as positing that any disagreement on interpretation is a "rationally resolvable" matter, an argument challenged by others noting the structurally conditioned nature of disagreement on interpretation.

The second contradiction is temporal: the static (contemporaneous) versus the evolutionary approach. As discussed above, neither method is always "right" and the decision to apply one or the other depends on the nature of the term interpreted, the nature of the treaty, and the intention of the parties. However, practice reveals that, often, courts make this choice tacitly, without reasoning, which undermines the transparency of interpretation.

The third paradox relates to the practical order of interpretation. The normative subsidiarity of the travaux préparatoires does not exclude their de facto employment as a first argument in many court cases. This discrepancy between the normative and practical hierarchies suggests either a weakness of the rule or its subversion by the practice of courts.

The fourth inconsistency is institutional: the diversity of interpreting institutions creates multiple precedents. Without a hierarchy among international courts, the convergence of interpretive standards seems to be structurally compromised - a situation that may be systemic not transitional.

VIII. CONCLUSION

The framework of international treaty interpretation is a complex and contradictory framework, in which the codified rules of the VCLT interact with other theoretical approaches as well as the practices of judicial bodies. While Articles 31-33 of the Convention constitute a universally accepted normative framework, the questions of the true hierarchy of interpretive methods, the boundaries of evolutionary interpretation and the place of subsequent State practice are currently the subject of intense debate.

The speedy evolution of international law - the emergence of new sub-regimes, the increase in the number of international courts, and the broadening of the scope of "relevant rules" in the sense of Article 31(3)(c) VCLT - accentuates the methodological tensions. In this context, the development of the interpretive methodology does not require the mere privileging of one of the three classical methods of interpretation but the development of more nuanced standards for their combination in relation to different types of treaties and interpretive scenarios.

A potential avenue for future research is the comparison of the interpretive approaches of the major international judicial bodies with the aim to detect similarities and permanent differences in order to provide normative criteria that will enable more transparent and predictable interpretations of international law in the event of structural systemic fragmentation.

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Historical sciences

STUDY OF THE CULTURAL AND RELIGIOUS TRADITIONS OF THE GOLDEN HORDE BY HISTORIANS IN THE PERIOD OF INDEPENDENT KAZAKHSTAN

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АЛТЫН ОРДА МЕМЛЕКЕТІНІҢ МӘДЕНИ, ДІНИ ДӘСТҮРЛЕРІН ТӘУЕЛСІЗ ҚАЗАҚСТАН КЕЗЕҢІНДЕГІ ТАРИХШЫЛАРЫНЫҢ ЗЕРДЕЛЕУІ

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Abstract
This article provides a comprehensive analysis of the study of cultural and religious traditions of the Golden Horde state within the historiography of independent Kazakhstan. It examines theoretical and methodological approaches, interpretative models, and the main trajectories of contemporary scholarly discourse. Particular attention is given to the institutionalization of Islam, the phenomenon of cultural syncretism, and the interaction between nomadic and sedentary civilizations within the Golden Horde context. The study concludes that recent historiographical developments play a crucial role in reinterpreting medieval heritage and shaping a renewed national historical identity.

Андатпа
Мақалада Тәуелсіз Қазақстан кезеңіндегі отандық тарихнамада Алтын Орда мемлекетінің мәдени және діни дәстүрлерінің зерделену деңгейі кешенді түрде талданады. Автор қазіргі зерттеулердегі теориялық-әдіснамалық ұстанымдарды, интерпретациялық үлгілерді және ғылыми дискурстағы негізгі бағыттарды саралайды. Сонымен қатар, Алтын Орда кеңістігіндегі ислам дінінің институционалдануы, мәдени синкретизм үдерістері және көшпелі және отырықшы өркениеттердің өзара ықпалдастығы мәселелері қарастырылады. Зерттеу нәтижесінде тәуелсіздік жылдарындағы тарихшылар еңбектерінің ұлттық тарихи сананы жаңғыртудағы және ортағасырлық мұраны қайта пайымдаудағы рөлі айқындалады.

Keywords: *Golden Horde, Ulus of Jochi, Yuan dynasty, Mongol Empire, historiography.*
Кілт сөздер: *Алтын Орда, Жошы ұлысы, Юань әулеті, Моңғол империясы, тарихнама.*

Кіріспе

1991 жылы Қазақстанның мемлекеттік тәуелсіздікке қол жеткізуі Отандық тарих ғылымының дамуындағы сапалы жаңа кезеңді белгіледі. Қазақстандық ғалымдар алдында Кеңес дәуіріндегі идеологиялық шектеулерден арылуға және өткенді ұлттық тұрғыдан қайта қарауға кірісуге мүмкіндік ашылды. Осы қайта қараудың орталық нысандарының бірі Алтын Орда мемлекеті - қазіргі Қазақстанның аумағын алып жатқан және қазақ халқының этникалық, мәдени және діни тарихында орасан зор рөл атқарған ортағасырлық держава болды.

Кеңестік тарихнамада Алтын Орда көбінесе әскери экспансия мен жаулап алу жорықтарының объективі арқылы қарастырылды, ал оның мәдени, рухани және өркениеттік өлшемі көлеңкеде қалды. Тәуелсіздік алғаннан кейін қазақстандық тарихшылар осы мұраны жүйелі түрде зерттеуге кірісті, түбегейлі басқа тұжырымдамалық тәсілдерді қалыптастырды.

Осы мақала тәуелсіздіктің үш онжылдығындағы-1991-2020 жылдар аралығындағы Алтын орданың мәдени және діни дәстүрлері саласындағы қазақстандық ғалымдардың зерттеу қызметінің негізгі бағыттарын қадағалауды мақсат етеді. Зерттеу міндеттеріне мыналар кіреді: негізгі тарихнамалық мектептер мен бағыттарды анықтау; исламдануды, қалалық мәдениетті және орданың рухани өмірін зерттеудің тұжырымдамалық тәсілдерін талдау; ғылыми айналымға енгізілген жаңа көздерді сипаттау.

1. ТАРИХНАМАЛЫҚ КОНТЕКСТ: КЕҢЕСТІК ПАРАДИГМАДАН ҰЛТТЫҚ ПАРАДИГМАҒА ДЕЙІН

Қазақстанда кеңестік тарихнамадан посткеңестік тарихнамаға көшу біржолғы алшақтық болған жоқ-бұл біртіндеп және жиі қарама-қайшы процесс болды. Тәуелсіздіктің алғашқы жылдары (1991-1995) бұрынғы зерттеу дәстүрлерінің айтарлықтай инерциясын сақтай отырып, жаңа әдіснамалық бағдарларды іздеумен сипатталды. Кеңестік академиялық жүйеде тәрбиеленген көптеген ғалымдар әдеттегі Санаттар шеңберінде жұмысын жалғастырды, тек бағаларды түзетеді.

Қазақ тарихындағы Алтын Орданың орнын қайта қарау түбегейлі өзгеріс болды. Егер кеңес тарихшылары оның жаулап алушы держава ретіндегі рөлін жиі атап өткен болса, онда жаңа қазақстандық тарихнама Қазақ хандығының тікелей мемлекеттік предшественниктерінің бірі ретінде Алтын Орда тұжырымдамасын табандылықпен бекітті. Бұл ұстанымды М.Әбусейітова, к. Пищулина және В. Юдин сияқты ірі зерттеушілер ұстанды, олардың кеңестік дәуірде басталған еңбектері ұлттық тарихнама контекстінде жаңа оқылымға ие болды.

Жаңа зерттеулерді дамытудың институционалдық негізін тарих және этнология институтын құру қамтамасыз етті. Қазақстан Республикасы Ғылым Академиясының Ш. Уәлиханов, сондай-ақ еліміздің жетекші университеттерінде тарих кафедраларының ашылуы. 1990-2000 жылдары Қазақстан тарихы бойынша іргелі көп томдық жұмыстар жарық көрді, онда Алтын Ордаға арнайы және кең орын берілді.

2. ҚАЗАҚСТАНДЫҚ ҒАЛЫМДАРДЫҢ ЗЕРТТЕУЛЕРІНДЕГІ АЛТЫН ОРДАНЫҢ ИСЛАМДАНУЫ

Өзбек хан тұсында Алтын Орда мемлекетінің Исламды қабылдауы (1313-1341) қазақстандық медиатанудың негізгі тақырыптарының бірі болып табылады. Қазақстандық тарихшылар кеңестік ғылымда болған жеңілдетілген түсіндірулерден алшақтай отырып, осы процестің хронологиясын, тетіктері мен салдарын нақтылауға елеулі үлес қосты.

Д. Сейітқали мен Ж. Артықбаевтың еңбектерінде исламданудың біртіндеп сипаты туралы мәселе егжей-тегжейлі қарастырылған: авторлар исламды қабылдау біржолғы Әкімшілік акт емес, бірнеше ұрпақты қамтыған ұзақ процесс болғанын сенімді түрде көрсетеді. Ресми исламмен қатар далада дәстүрлі тәңірлік нанымдар өмір сүре берді, бұл көшпелі ортаға тән синкреттік діни формаларды тудырды.

Қазақстандық тарихнамада сопылық ордендердің - ең алдымен ұлы ақын және мистик Қожа Ахмад Ясауи негізін қалаған Ясауи орденінің қызметін зерделеу ерекше орын алады. Зерттеушілер Р. Мұхамеджанов пен С. Әкімбеков сопылықты мәдени интеграцияның қуатты құралы және сонымен бірге исламның дала өмір салтына бейімделу механизмі ретінде қарастырады. Түркістан қаласының орталығы болған Ясауи культі, олардың пікірінше, Алтын Орда кеңістігіндегі көшпелі және отырықшы өркениеттер арасындағы байланыстырушы буын рөлін атқарды.

Посткеңестік кезеңде шетелдік мұрағаттарда сақталған араб, парсы және түркі қолжазбаларын айналымға енгізудің арқасында зерттеулердің қайнар көзі едәуір кеңейді. Қазақстандық ғалымдар Түркия, Египет және Иранның зерттеу орталықтарымен байланыс орнатты, бұл Алтын Орданың ислам мәдениетінің тарихы бойынша бұрын қол жетімсіз дереккөздерді тартуға мүмкіндік берді.

3. ҚАЛАЛЫҚ МӘДЕНИЕТ ЖӘНЕ МАТЕРИАЛДЫҚ ӨРКЕНИЕТ

Қазақстандық тарихнама Алтын Орданың қалалық өмірін зерттеуге көп көңіл бөледі - бұл аспект кеңес заманында "көшпелі" держава бейнесінің пайдасына жиі бағаланбаған. М.Елеуов, К. Байпақов және Л. Ерзаковичтің зерттеулері Алтын Орданың түркі-моңғол, Орта Азия және шығыс еуропа мәдени дәстүрлерін органикалық байланыстыратын қалалық орталықтардың дамыған жүйесі бар екенін айқын көрсетті.

Сырдария бассейнінде және Дешті Қыпшақ жерінде қазақстандық ғалымдар ұйымдастырған ауқымды археологиялық экспедициялар қалалық мәдениетті зерттеуде ерекше рөл атқарды. Отырар (Фараб), Сығанақ, Сауран және басқа да ортағасырлық қалашықтардағы қазба жұмыстары Алтын Орданың материалдық және көркемдік мәдениеті туралы түсініктерді едәуір кеңейтуге мүмкіндік берді. Бұл қалалар тек сауда ғана емес, сонымен қатар мәдени, діни және білім беру орталықтары екендігі анықталды.

Б. Байтанаев пен А. Ақышевтің еңбектерінде Алтын Орда халқының қолөнер дәстүрлері мен көркемдік қолөнері зерттелген. Авторлар әртүрлі көркемдік дәстүрлердің синтезін түсіре отырып, зергерлік бұйымдардың, қыш ыдыстардың, тоқудың және сәулет өнерінің жоғары деңгейін көрсетеді. Дала ою-өрнектерін исламдық геометриялық мотивтермен үйлестіре отырып, сәндік-қолданбалы өнерде "Алтын Орда стилі" ерекше көзге түседі.

Алтын Орданың архитектуралық мұрасын зерттеу қазақстандық ғылымның елеулі жетістігі болды. Қазақстан аумағында сақталған кесенелер, мешіттер мен медреселер жүйеленіп, Ә. Нұрмұхамбетовтің еңбектерінде зерделенді. Бұл ескерткіштер сәулет мәдениетінің жоғары деңгейінің және Ұлы дала жағдайында исламдық құрылыс дәстүрлерін органикалық игерудің дәлелі ретінде қарастырылады.

4. ЖАЗБАША МӘДЕНИЕТ, ТІЛ ЖӘНЕ ӘДЕБИ МҰРА

Алтын Орданың жазбаша мәдениеті мен әдеби мұрасын зерделеу қазақстандық медиевистиканың қарқынды дамып келе жатқан бағыттарының бірі болып табылады. Ордада құрылған және әдеби тіл мен мәдени бірегейліктің қалыптасуын бейнелейтін түркітілдес ескерткіштермен жұмыс ерекше маңызға ие болды.

Қазақстандық түркологтар - ең алдымен А.Дербісәлі мен Р. Сыздықова - "Құтб" сияқты Алтын Орда әдебиетінің көрнекті ескерткіштерінің тілі мен стиліне - Хорезмидің "Хосров и Ширин" (XIV ғ.), "Мұхаббат-наме" поэмасы мен Сайф Сарайдың шығармаларына іргелі зерттеулер жүргізді. Бұл мәтіндерді олар қазақ поэзиясының негіздерінің біріне айналған түркі-қыпшақ әдеби дәстүрінің қалыптасуының маңызды құжаттары ретінде қарастырады.

Қазақстандық ғалымдар Алтын орда әдебиеті мен кейінгі қазақ поэтикалық дәстүрі арасындағы тығыз сабақтастықты талап етіп отыр. Бұл тұрғыда "Диван-и-Хикмет" ("Даналық кітабы") түркі сопылық поэзиясының алғашқы ескерткіштерінің бірі болып саналатын Қожа Ахмад Ясауидің қызметі бүгінгі күнге дейін жалғасып келе жатқан рухани және әдеби дәстүрдің бастауы ретінде қарастырылады.

Алтын Орда қалаларының білім беру жүйесі мен ғылыми өмірін зерттеу маңызды бағыт болды. Зерттеулер көрсеткендей, мешіттер мен медреселерде кітапханалар жұмыс істеді, ал оқу орындарының өзі дала аймағында ислам өркениетінің тірегі болған теологтар, заңгерлер мен ақындарды дайындады. Қазақстандық тарихшылар бұл институттардың түркі топырағында араб-парсы ғылыми білімін сақтау мен таратудағы рөлін атап көрсетеді.

5. ПІКІРТАЛАС МӘСЕЛЕЛЕРІ ЖӘНЕ ЗАМАНАУИ ТӘСІЛДЕР

Алтын Орданың қазақстандық тарихнамасында ішкі пікірталастар мен даулар жоқ емес, бұл оның ғылыми жетілгендігін көрсетеді. Ең қызықтыларының бірі-Алтын Орда мәдениетіндегі түркі мен моңғол қағидаттарының арақатынасы туралы мәселе. Қазақстандық зерттеушілердің бір бөлігі моңғолға дейінгі Қыпшақ дәстүрлерімен сабақтастықты, ал басқалары - моңғол билеуші әулетінің мәдени медиатор ретіндегі рөлін атап көрсетеді.

Моңғол элитасының түркілену дәрежесі туралы мәселе де пікірталас күйінде қалып отыр. Қазақстандық ғалымдар XIV ғасырдың ортасына қарай Алтын Орданың билеуші класы терең түркияланып, исламдандырылғанына бірауыздан келіседі, алайда бұл процестің тетіктері мен қарқынын түсіндіру әр түрлі. Бірқатар еңбектерде Орданы түркілендіру сыртқы қысымның салдары емес, дала қоғамының мәдени эволюциясының ішкі логикасын көрсетті деген тезис айтылады.

Соңғы жылдары қазақстандық зерттеушілердің басқа моңғол Мұрагер мемлекеттерімен-Шағатай ұлысы, Хулагуидтер мемлекеті және Моңғол Қытай Юань империясымен салыстырғанда Алтын Орданы зерттеуге деген қызығушылығы арта түсті. Бұл тәсіл моңғол әлемінің Батыс тармағының мәдени дамуының ерекшелігін анықтауға және Алтын Орда өркениетінің бірегейлігін негіздеуге мүмкіндік береді.

Сондай-ақ гендерлік зерттеулер мен күнделікті тарихқа деген қызығушылықтың артқанын атап өткен жөн. Қазақстандық жас тарихшылардың еңбектерінде Алтын Орда қоғамындағы әйелдің жағдайы, Орданың діни өміріндегі асыл Хатун әйелдерінің рөлі, жерлеу рәсімі мен отбасылық қатынастардың ерекшелігі қарастырылады. Бұл бағыт ортағасырлық мемлекеттің әлеуметтік және мәдени өмірін түсінудің жаңа қырларын ашады.

6. ТАРИХИ ЖАДЫНЫ ҚАЛЫПТАСТЫРУ КОНТЕКСТІНДЕГІ АЛТЫН ОРДА

Тәуелсіз Қазақстанда Алтын Орданы зерделеу ұлттық тарихи жады мен Мемлекеттік бірегейлікті қалыптастыру процестерінен бөлінбейді. Тарихи мұраны зерделеу және насихаттау жөніндегі мемлекеттік бағдарламалар, атап айтқанда, 2004-2011 жылдары іске асырылған "Мәдени мұра" ("мәдени мұра") бағдарламасы - зерттеу және баспа қызметіне қуатты серпін берді.

Осы бағдарлама шеңберінде Алтын Орда тарихы бойынша ең маңызды ортағасырлық дереккөздер - Рашид ад-Диннің, Ибн Баттутаның, Әл-Умаридің және басқа да авторлардың еңбектері қазақ тілінде аударылып, жарық көрді. Осылайша, Алтын Орда тарихын академиялық *зерттеу кең қоғамдық өлшемге ие болды: қазақстандық қоғам бұрын мамандардың тар тобына ғана қолжетімді дереккөздерге қол жеткізді.*

Түркістан қаласына түркі әлемінің "рухани астанасы" мәртебесін беру және ЮНЕСКО - ның Бүкіләлемдік мұра тізіміне енгізілген Қожа Ахмад Ясауи кесенесінде ауқымды қалпына келтіру жұмыстарын жүргізу маңызды болды. Ғылыми тұрғыда бұл Түркістанның Алтын Орданың діни және мәдени орталығы ретіндегі рөліне арналған зерттеулерді өзектендірді.

Қазақстандық тарихшылар Алтын Орданы зерттеуге байланысты Халықаралық ғылыми жобаларға белсенді қатысуда. Ресей, Түрік, венгр және поляк зерттеушілерімен жемісті ынтымақтастық жүргізілуде. Қазақстандық тарап ең алдымен Алтын Орда өркениетінің далалық құрамдас бөлігін - оның көшпелі өмір салты мен түркі мәдени мұрасын бейнелейтін бөлігін зерттеуге үлес қосады.

Қорытынды

Алтын орданың мәдени және діни дәстүрлеріне арналған қазақстандық тарихнаманы талдау бірқатар маңызды тұжырымдар жасауға мүмкіндік береді. Тәуелсіздіктің үш онжылдығында қазақстандық ғалымдар осы ортағасырлық мемлекет туралы бұрынғы идеяларды түбегейлі өзгерткен зерттеулердің кең корпусын құрды.

Біріншіден, қазақстандық тарихнама көшпелі және отырықшы, түркі және ислам мәдени дәстүрлерін үйлестіретін жоғары дамыған өркениет ретінде Алтын Орда тұжырымдамасын сенімді түрде бекітті. "Жойқын" Орданың бейнесі дамыған құқықтық жүйеге, қалалық мәдениетке, әдебиетке және рухани өмірге ие күрделі мемлекеттік организм бейнесіне жол берді.

Екіншіден, қазақстандық ғалымдардың зерттеулері Алтын Орда тарихындағы өркениеттік фактор ретіндегі исламның шешуші рөлін айқын көрсетті. Исламдану процестері сырттан енгізілген діни реформа ретінде емес, ең алдымен Орта Азиялық мұсылман дәстүрімен терең мәдени байланыстардың органикалық нәтижесі ретінде қарастырылады.

Үшіншіден, ғылыми айналымға жаңа дереккөздерді - жазбаша (араб, парсы, түркі қолжазбалары) және археологиялық қолжазбаларды енгізу - зерттеудің эмпирикалық базасын едәуір кеңейтті және көптеген қалыптасқан тұжырымдамаларды тексеруге немесе түзетуге мүмкіндік берді.

Соңында, Алтын Орданың қазақстандық тарихнамасы әлемдік медиатануда лайықты орын алып, одан әрі халықаралық ынтымақтастық үшін перспективалар ашады. Оның одан әрі дамуы компаративистік тәсілдерді тереңдетумен, дереккөздік базаны кеңейтумен және жаңа әдістемелік құралдарды, атап айтқанда цифрлық гуманитаристика мен тарихи антропология әдістерін біріктірумен байланысты.

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TRANSFORMATIONS OF THE PARADIGMS OF GOLDEN HORDE HISTORIOGRAPHY IN INDEPENDENT KAZAKHSTAN

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АЛТЫН ОРДА ТАРИХНАМАСЫ ПАРАДИГМАЛАРЫНЫҢ ТӘУЕЛСІЗ ҚАЗАҚСТАН КЕЗЕҢІНДЕГІ ТРАНСФОРМАЦИЯЛАРЫ

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Abstract

In the context of independent Kazakhstan, the historiography of the Golden Horde, also known as the Jochi Ulus, has undergone fundamental methodological and conceptual changes. As a result of the rejection of class-ideological and Eurocentric approaches that dominated during the Soviet period, the paradigm of "national statehood" began to take shape in domestic historical scholarship.

This transformation developed through several stages, each characterized by its own specific features. This article provides a comprehensive analysis of the paradigmatic transformation of the historiography of the Golden Horde, or Jochi Ulus, during the period of independent Kazakhstan. The main purpose of the study is to analyze the methodological changes that emerged in post-Soviet Kazakh historical scholarship, the evolution of scholarly concepts, and the reassessment of the Golden Horde heritage in the formation of national historical consciousness.

Based on methods of historiographical analysis, the article identifies the differences between Soviet-period interpretations of the Golden Horde and the new scholarly approaches that developed during the years of independence. It demonstrates that the class-ideological and Eurocentric paradigm dominant in the Soviet era portrayed the Golden Horde as an external invading structure and limited its role in Kazakh statehood and ethnogenesis.

In the post-Soviet period, however, these views were gradually reconsidered, and the Golden Horde began to be evaluated as an integral part of national history. The study conditionally divides the development of historiography in independent Kazakhstan into several stages: the period of the inertial preservation of the Soviet paradigm, the period of historiographical breakthrough influenced by geopolitical factors, and the current stage of the formation of the "Jochi Ulus" paradigm.

Special attention is given to the features of historical policy during the periods of Nursultan Nazarbayev and Kassym-Jomart Tokayev, as well as to its role in strengthening the idea of national statehood.

Аңдатпа

Тәуелсіз Қазақстан жағдайында Алтын Орда (Жошы Ұлысы) тарихнамасы түбегейлі методологиялық және тұжырымдамалық өзгерістерге ұшырады. Кеңестік кезеңде үстем болған таптық-идеологиялық және еуроцентристік көзқарастардан бас тарту нәтижесінде, отандық тарих ғылымында «ұлттық мемлекеттілік» парадигмасы қалыптаса бастады. Бұл трансформация бірнеше кезеңдер арқылы жүзеге асып, әрқайсысы өзіндік ерекшеліктерімен сипатталады. Бұл мақалада Тәуелсіз Қазақстан кезеңіндегі Алтын Орда (Жошы Ұлысы) тарихнамасының парадигмалық трансформациясы кешенді түрде қарастырылады. Зерттеудің негізгі мақсаты посткеңестік кезеңдегі отандық тарих ғылымында қалыптасқан методологиялық өзгерістерді, ғылыми тұжырымдамалардың эволюциясын және ұлттық тарихи сананың қалыптасуындағы Алтын Орда мұрасының қайта бағалануын талдау болып табылады. Мақалада тарихнамалық талдау әдістері негізінде Алтын Ордаға қатысты көзқарастардың кеңестік кезеңдегі интерпретациялары мен тәуелсіздік жылдарындағы жаңа ғылыми бағыттар арасындағы айырмашылықтар айқындалады. Кеңестік дәуірде үстем болған таптық-идеологиялық және еуроцентристік парадигма Алтын Орданы сыртқы басқыншылық құрылым ретінде сипаттап, оның қазақ мемлекеттілігі мен этногенезіндегі рөлін шектегені көрсетіледі. Ал посткеңестік кезеңде бұл көзқарастар біртіндеп қайта қаралып, Алтын Орда ұлттық тарихтың құрамдас бөлігі ретінде бағалана бастағаны негізделеді. Зерттеу барысында Тәуелсіз Қазақстан тарихнамасының дамуы шартты түрде бірнеше кезеңге бөлініп қарастырылады: кеңестік парадигманың инерциялық сақталу кезеңі, геосаяси факторлардың *ықпалымен туындаған тарихнамалық серпіліс кезеңі және қазіргі «Жошы Ұлысы» парадигмасының қалыптасу кезеңі. Әсіресе, Нурсултан Назарбаев пен Қасым-Жомарт Тоқаев кезеңдеріндегі тарихи саясаттың ерекшеліктері, ұлттық мемлекеттілік идеясын нығайтудағы рөлі талданады.*

Keywords: *Golden Horde, Jochi Ulus, historiography, paradigm, national statehood, post-Soviet period, historical consciousness, ethnogenesis, Kazakh statehood, Ak Orda, Kok Orda.*
Кілт сөздер: *Алтын Орда, Жошы Ұлысы, тарихнама, парадигма, ұлттық мемлекеттілік, посткеңестік кезең, тарихи сана, этногенез, қазақ мемлекеттілігі, Ақ Орда, Көк Орда*

Кеңестік парадигманың инерциясы: посткеңестік өтпелі кезең.Тәуелсіздіктің алғашқы онжылдықтарында Қазақстан тарих ғылымы методологиялық тұрғыдан кеңестік кезеңде қалыптасқан зерттеу үлгілерінен толықтай ажырай алған жоқ. Бұл кезеңде ғылыми зерттеулерде маркстік-лениндік әдіснаманың қалдықтары сақталып, тарихи процестер көбінесе әлеуметтік-экономикалық формациялар тұрғысынан түсіндірілді. Алтын Орда мәселесі де осы парадигманың ықпалында қарастырылдым. Алтын Орда тарихы ұзақ уақыт бойы «сыртқы саяси үстемдік» пен «отарлық сипаттағы билік» ретінде бағаланды. Мұндай түсінік Ресей империялық тарихнамасынан бастау алып, кеңестік кезеңде идеологиялық тұрғыдан күшейтілген болатын. Нәтижесінде, Жошы Ұлысының ішкі эволюциясы, оның мемлекеттік институттары мен басқару жүйесі жеткілікті деңгейде зерттелмеді [1].Сонымен қатар, этногенез мәселесінде де қарапайымдандырылған модельдер үстем болды. Қазақ халқының қалыптасуы Алтын Орда дәуірінен бөлініп, негізінен XV ғасырдағы Қазақ хандығының құрылуымен ғана байланыстырылды. Бұл тәсіл тарихи сабақтастықты әлсіретіп, көшпелі мемлекеттіліктің ұзақ мерзімді эволюциясын толық ашуға мүмкіндік бермеді.Ақ Орда концепциясының басым болуы да осы кезеңнің ерекшелігі болды. Зерттеушілердің бір бөлігі Ақ Орданы дербес ұлттық мемлекет ретінде қарастырып, оны Қазақ хандығының тікелей саяси негізі ретінде көрсетті. Алайда бұл тұжырым Алтын Орда құрылымының күрделілігін толық ескермей, оны тек «ыдыраған империя» ретінде сипаттауға алып келді [2].Тәуелсіздіктің алғашқы кезеңінде Алтын Орда тарихын зерттеуде тек мазмұндық емес, сонымен қатар деректанулық және методологиялық деңгейде де кеңестік дәстүрдің ықпалы айқын байқалды. Бұл кезеңде ғылыми айналымда қолданылған дереккөздер негізінен кеңестік кезеңде қалыптасқан канондық корпуспен шектеліп, жаңа деректерді тарту деңгейі төмен болды. Әсіресе, парсы-түркі жазба деректерін түпнұсқадан қайта қарастыру үрдісі жеткілікті дәрежеде жолға қойылмады, бұл өз кезегінде бұрынғы интерпретациялардың сақталуына алып келді. Методологиялық тұрғыдан алғанда, зерттеулерде эволюционистік және формациялық тәсілдер басымдық танытты. Алтын Орда көбінесе «феодалдық мемлекет» ретінде сипатталып, оның саяси құрылымы мен билік жүйесі таптық қатынастар шеңберінде түсіндірілді. Мұндай тәсіл көшпелі қоғамның өзіндік ерекшеліктерін, билік легитимділігінің дәстүрлі механизмдерін және дала өркениетінің саяси мәдениетін толық ашуға мүмкіндік бермеді.

«Жошы Ұлысы» парадигмасының қалыптасуы.2019 жылдан бастап Алтын Орда тарихын зерттеу жаңа институционалдық деңгейге көтерілді. Қасым-Жомарт Тоқаев бастамаларымен Жошы Ұлысы мәселесі мемлекеттік идеологияның маңызды құрамдас бөлігіне айналды. Жошы Ұлысының 750 жылдығын атап өту тек мерейтойлық іс-шара ғана емес, сонымен қатар ғылыми бағыттың ресми түрде бекітілуі болды. Осы кезеңде «Алтын Орда» атауының орнына «Жошы Ұлысы» терминін қолдану кеңінен таралып, тарихи деректерге негізделген атауларды қалпына келтіру үрдісі басталды [2].

Жаңа парадигмада Жошы Ұлысы тек саяси құрылым ретінде ғана емес, сонымен қатар өркениеттік кеңістік ретінде қарастырылады. Оның құрамындағы этникалық топтар, шаруашылық жүйесі, мәдени байланыстар және құқықтық институттар кешенді түрде зерттелуде.

Бұл кезеңде Қазақстанның Жошы Ұлысының тікелей мұрагері екендігі туралы тұжырым ғылыми айналымда орнықты. Бұл тұжырым бірнеше факторларға негізделеді: территориялық сабақтастық; этникалық құрамның жалғастығы; саяси элитаның генеалогиялық байланысы;Нәтижесінде, Алтын Орда енді «жат мемлекет» емес, қазақ мемлекеттілігінің тарихи бастауы ретінде қарастырыла бастады.

Сонымен қатар, бұл кезеңде Ресей тарихнамасының ықпалы да айқын сезілді. Алтын Орда тарихы көбіне Русь тарихымен байланыста, «татар-моңғол езгісі» концепциясы аясында қарастырылды. Бұл бағыт Жошы Ұлысының ішкі даму логикасын, оның әкімшілік жүйесін және аймақтық ерекшеліктерін екінші қатарға ысырып тастады. Нәтижесінде, Алтын Орда тарихы дербес зерттеу объектісі ретінде емес, басқа тарихи процестердің қосымша элементі ретінде қарастырылды. Терминологиялық деңгейде де бірқатар мәселелер сақталды. «Алтын Орда» атауы ғылыми айналымда кеңінен қолданылғанымен, оның шартты атау екендігі және ортағасырлық деректерде «Ұлық Ұлыс» немесе «Жошы Ұлысы» терминдерінің басым қолданылғаны ескерілмеді. Бұл жағдай тарихи шындықты толыққанды бейнелеуге белгілі бір дәрежеде кедергі келтірді.Осы кезеңнің тағы бір ерекшелігі – тарихи кеңістікті «орталық–периферия» моделі арқылы түсіндіру болды. Бұл модель бойынша Алтын Орда орталығы сыртта орналасқан, ал Қазақстан аумағы шеткері аймақ ретінде қарастырылды. Мұндай көзқарас Қазақстан территориясының Жошы Ұлысының саяси және экономикалық құрылымындағы рөлін төмендетуге алып келді.Сонымен бірге, отандық тарихнамада Алтын Орда дәуірінің мәдени және өркениеттік аспектілеріне жеткілікті назар аударылмады. Қалалық мәдениет, сауда жолдары, ислам дінінің таралуы, құқықтық жүйе сияқты мәселелер зерттеулерде эпизодтық түрде ғана көрініс тапты. Бұл өз кезегінде Алтын Орданы тек әскери-саяси құрылым ретінде қабылдауға ықпал етті. Алайда, дәл осы өтпелі кезеңде болашақ парадигмалық өзгерістердің алғышарттары да қалыптаса бастады. Бірқатар зерттеушілер Алтын Орда тарихын қайта қарастыру қажеттігін көтеріп, ұлттық тарихтың тұтастығын қамтамасыз ету мәселесін алға тартты. Осылайша, кеңестік парадигманың инерциясы біртіндеп әлсіреп, жаңа методологиялық ізденістерге жол ашылды.

«Жаңа мектеп» және ғылыми жаңалықтар. Қазіргі кезеңдегі Алтын Орда (Жошы Ұлысы) тарихнамасының сапалық жаңа деңгейге көтерілуі ең алдымен жаңа буын зерттеушілердің қалыптасуымен және олардың методологиялық жаңашылдығымен тікелей байланысты. Бұл бағыт шартты түрде «жаңа мектеп» деп аталып, кеңестік және ерте посткеңестік кезеңдердегі қалыптасқан стереотиптерді қайта қарастыруға бағытталған ғылыми қозғалыс ретінде сипатталады. Аталған бағыттың теориялық-деректанулық негізі Вениамин Юдин еңбектерінде қаланды. Ол шығыс жазба деректерін, әсіресе парсы және түркі тілдеріндегі хроникаларды сыни тұрғыдан қайта талдап, олардың мәтіндік құрылымы мен терминологиялық ерекшеліктерін жүйелі түрде зерттеді. Юдиннің әдіснамалық ұстанымы деректерді тек мазмұндық тұрғыдан емес, олардың пайда болу контексті мен авторлық позициясын ескере отырып талдауға негізделді. Бұл тәсіл Алтын Орда тарихына қатысты бірқатар орныққан қате тұжырымдарды қайта қарауға мүмкіндік берді [1]. Осы ғылыми бағытты жалғастырып, дамытқан қазіргі зерттеушілер қатарында Жаксылык Сабитов, Айболат Кушкумбаев, Қанат Өскенбай ерекше орын алады. Олардың еңбектерінде Алтын Орда құрылымына, саяси жүйесіне, этникалық құрамына және генеалогиялық мәселелеріне қатысты тың ғылыми тұжырымдар ұсынылған. Біріншіден, Ақ Орда мен Көк Орда мәселесіне қатысты дәстүрлі көзқарастар түбегейлі қайта қарастырылды. Бұрынғы тарихнамада олар дербес мемлекеттер ретінде қарастырылса, жаңа зерттеулерде бұл құрылымдар Жошы Ұлысының ішкі әкімшілік-саяси бөліністері ретінде түсіндіріледі. Жаксылык Сабитов өз еңбектерінде Ақ Орда мен Көк Орданың жеке мемлекеттік бірліктер емес, Жошы әулетінің әртүрлі тармақтарының билік жүргізген аймақтары екенін дәлелдеуге тырысады. Ал Амангельды Кушкумбаев бұл мәселені әскери-әкімшілік құрылым тұрғысынан қарастырып, оларды Ұлыстың оң және сол қанаттары ретінде сипаттайды. Бұл тұжырым ортағасырлық деректердегі терминологиялық қайшылықтарды жүйелеуге және тарихи шындыққа жақындауға мүмкіндік берді [3]. Екіншіден, генеалогиялық зерттеулердің дамуы Алтын Орда мен Қазақ хандығы арасындағы саяси сабақтастық мәселесін жаңа деңгейде қарастыруға жол ашты. Жаксылык Сабитов жүргізген генеалогиялық реконструкциялар нәтижесінде қазақ хандарының шығу тегі Жошының үлкен ұлы Орда Еженнен емес, оның ұлдарының бірі Тоқа Темір әулетінен тарайтыны туралы тұжырым ғылыми негізде дәлелденді. Бұл мәселе бойынша Қанат Өскенбай да өз еңбектерінде деректік материалдарға сүйене отырып, қазақ билеушілерінің Жошы әулетінің кең ауқымды мұрагерлері екенін атап көрсетеді. Мұндай көзқарас қазақ хандарының Алтын Орда кеңістігіндегі билікке заңды құқықтарының болғанын көрсетіп, саяси легитимділік мәселесін түбегейлі қайта қарауға мүмкіндік береді [4]. Үшіншіден, этникалық процестерге қатысты жаңа ғылыми тұжырымдар қалыптасты. Кеңестік кезеңде этногенез мәселесі көбіне үзік-үзік және кезеңдерге бөлініп қарастырылса, қазіргі зерттеулерде оның үздіксіздігіне ерекше назар

аударылады. Нурболат Масанов еңбектеріндегі көшпелі қоғамның құрылымдық ерекшеліктері туралы теориялық тұжырымдар негізінде Жошы Ұлысы құрамындағы қыпшақ, найман, керей, қоңырат сияқты тайпалардың кейін қазақ халқының этникалық негізін құрағаны дәлелденеді. Бұл этногенездің динамикалық әрі ұзақ мерзімді процесс екенін көрсетеді [5]. Төртіншіден, тарихи география саласындағы зерттеулер де айтарлықтай дамыды. Айболат Кушкумбаев және басқа да зерттеушілер Жошы Ұлысының аумақтық құрылымын қайта қарастырып, оның негізгі саяси-экономикалық орталықтарының едәуір бөлігі қазіргі Қазақстан территориясында орналасқанын дәлелдеді. Бұл тұжырым Қазақстанның Алтын Орда мұрагері ретіндегі орнын ғылыми тұрғыдан негіздеуге мүмкіндік береді [6]. Сонымен қатар, жаңа мектеп өкілдері Алтын Орда тарихын тек саяси тарих шеңберінде ғана емес, өркениеттік тұрғыдан да қарастыруды ұсынады. Бұл бағытта сауда жолдары, қалалық мәдениет, ислам дінінің таралуы, құқықтық жүйе (Яса және шариғат нормалары) сияқты мәселелер кешенді түрде зерттелуде. Мұндай тәсіл Алтын Орданы тек әскери-саяси құрылым емес, күрделі әлеуметтік-мәдени жүйе ретінде түсінуге мүмкіндік береді.

Қорытынды. *Жалпы алғанда, Тәуелсіз Қазақстан кезеңіндегі Алтын Орда (Жошы Ұлысы) тарихнамасы терең әрі көпқырлы парадигмалық трансформациядан өтті деп тұжырымдауға болады. Бұл өзгерістер тек жекелеген ғылыми көзқарастардың жаңаруымен шектелмей, отандық тарих ғылымының методологиялық негіздерінің қайта құрылуымен, тарихи танымның мазмұндық кеңеюімен және ұлттық тарихи сананың жаңа деңгейде қалыптасуымен сипатталады. Зерттеу нәтижелері көрсеткендей, кеңестік кезеңде үстем болған таптық-идеологиялық және еуроцентристік парадигма Алтын Орданы көбіне сыртқы басқыншылық құрылым ретінде қарастырып, оның қазақ мемлекеттілігі мен этногенезіндегі рөлін жүйелі түрде төмендеткен. Ал тәуелсіздік жылдарында бұл көзқарастар біртіндеп қайта қаралып, Жошы Ұлысының тарихи мұрасы ұлттық тарихтың ажырамас бөлігі ретінде бағалана бастады. Бұл үдеріс ғылыми ізденістермен қатар, тарихи саясаттың өзгеруімен және ұлттық бірегейлікті нығайту қажеттілігімен тығыз байланысты болды. Сонымен қатар, мақалада көрсетілгендей, посткеңестік кезеңдегі тарихнаманың дамуы бірнеше сатылар арқылы жүзеге асты: бастапқы кезеңде кеңестік инерция сақталса, кейінгі кезеңде геосаяси факторлардың ықпалымен тарихи зерттеулерде серпіліс байқалды, ал соңғы жылдары «Жошы Ұлысы» парадигмасы ғылыми және идеологиялық тұрғыдан орнықты. Бұл кезеңдер тарихи танымның біртіндеп тереңдеп, ұлттық мүдделермен үйлескен жаңа ғылыми бағытқа көшуін айқын көрсетеді.Қазіргі кезеңдегі «жаңа мектеп» өкілдерінің еңбектері Алтын Орда тарихнамасын сапалық тұрғыдан жаңа деңгейге көтерді. Олар деректанулық базаны кеңейтіп, шығыс жазба деректерін сыни тұрғыдан қайта талдап, бұрынғы қалыптасқан стереотиптерді жоққа шығаратын тың тұжырымдар ұсынды. Әсіресе, Ақ Орда мен Көк Орда мәселесінің қайта қаралуы, қазақ хандарының генеалогиясына қатысты жаңа дәлелдердің ұсынылуы және этникалық сабақтастықтың ғылыми негізделуі Алтын Орда мен Қазақ хандығы арасындағы тарихи байланысты тереңірек түсінуге мүмкіндік берді.*

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Jurisprudence

THE RIGHT TO BE FORGOTTEN IN THE CONTEXT OF THE PROTECTION OF PRIVATE LIFE: CHALLENGES IN THE DIGITAL ENVIRONMENT

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Abstract

As a result of the rapid development of digital technologies and internet platforms, various types of information concerning individuals - including personal, professional and social data - remain accessible in the online environment for extended periods and in some cases for an indefinite duration. This situation leads to the de facto uncontrolled circulation of data, their use beyond the original purpose, as well as potential interferences with individuals' reputation and the inviolability of their private life. In this regard, within the context of personal data protection and the safeguarding of private life, the concept of the "right to be forgotten" has, in recent years, become a subject of extensive discussion at both the national and international legal levels. This article examines the legal nature of the right to be forgotten, its role in the protection of private life, as well as the main challenges and risks arising in the course of its implementation in the digital age.

Keywords: right to be forgotten, personal data protection, digital technologies, right to reputation, freedom of expression

1. Concept and Scope:

"The right to be forgotten" is the right of an individual to restrict the dissemination of personal data relating to themselves on the internet or in other digital environments and, in certain cases, to request their erasure. This right primarily aims to reduce interference with an individual's private life, to prevent the harm caused by the prolonged retention of data, and to protect the person's reputation, private life, and security.

This issue has emerged from individuals' desire to determine the course of their lives independently, without being permanently or periodically stigmatized as a result of specific actions carried out in the past. The right to be forgotten enables a person to request the deletion of information concerning them so that it can no longer be discovered by third parties, particularly through search engines.

This right is closely linked to the principles of the inviolability of private life and the protection of personal data. In the modern digital era, the long-term availability of information on the internet may adversely affect an individual's reputation, social standing, and professional activity. For this reason, the right to be forgotten functions as a mechanism of control over an individual's digital past [13].

In European law, this right has been particularly developed within the framework of the General Data Protection Regulation (GDPR). Article 17 of the GDPR establishes the "right to erasure" and, in certain circumstances, grants the data subject the right to request the deletion of their personal data [9].

Although the right to be forgotten is not explicitly recognized as an independent and separate right in international legal instruments, it derives from the following legal foundations:

- *the right to respect for private and family life;*
- *the right to the protection of personal data;*
- *the protection of an individual's reputation, honor, and dignity;*
- *the principle of lawful and fair processing of data.*

The right to be forgotten differs from the right to privacy. While the right to privacy concerns information that is not publicly known, the right to be forgotten refers to the subsequent removal of access to information that was once publicly available.

The application of the right to be forgotten may cover the following situations:

- ***Loss of relevance of the data:*** *If the information no longer serves a public interest and has lost its significance over time, its erasure may be requested.*

• *Inaccurate or incorrect data: The retention of false or distorted information may violate the individual's rights.*

• *Excessive or disproportionate data processing: If the data is no longer necessary for the original purpose, its retention may be considered unlawful.*

• *Withdrawal of consent: Where the individual withdraws previously given consent, the deletion of data may be requested in certain cases.*

The right to be forgotten is not absolute in nature. It must be balanced against other fundamental rights, in particular freedom of expression, freedom of the press, the public's right to receive information, as well as historical and archival interests. For instance, the deletion of information relating to public officials or events of public interest is not always possible. Where the information is significant from the perspective of public scrutiny, its retention may prevail.

2. International Law:

Although the concept of the "right to be forgotten" is a relatively recent term, the Court of Justice of the European Union, by its judgment of 13 May 2014 in the Costeja case against Google, effectively consolidated this right as a human right in legal terms [6]. This, however, raises a number of questions regarding the limits of the application of the right to be forgotten. In particular, the inability to require the deletion of data held by companies located outside a given jurisdiction constitutes one of the principal challenges in this field. This is due to the absence of a global mechanism that would enable individuals to exercise full control over their online image.

European data protection legislation does not explicitly provide for the "right to be forgotten" as such, but rather for the more limited "right to erasure of personal data." Nevertheless, approaches analogous to the right to be forgotten have existed in Europe for many years.

In the United Kingdom, under the Rehabilitation of Offenders Act 1974, many convictions are considered "spent" after a certain period of time has elapsed [7]. This means that such information relating to an individual should not be taken into account when obtaining insurance or seeking employment, and reference to such convictions may be regarded as defamatory, as if a false statement were being made.

In 1995, the European Union adopted the Data Protection Directive (Directive 95/46/EC) with the aim of regulating the processing of personal data [8]. At present, data protection is regarded as an integral part of human rights law.

In France, the concept of le droit à l'oubli (the right to be forgotten) was formally incorporated into national legislation in 2010 [5].

The concept of the "right to be forgotten" is multifaceted and has been interpreted in various forms. It was first recognized by the Court of Justice of the European Union (CJEU) in the Google Spain and Google judgment as an aspect of the data subject's right to privacy, in the context of the processing of personal data by internet search engines and requests for delisting. The CJEU interpreted the applicable data protection framework in force at that time in light of the fundamental rights enshrined in Articles 7 (the right to respect for private and family life) and 8 (the right to the protection of personal data) of the Charter of Fundamental Rights of the European Union [11].

Following its recognition in the case law of the CJEU, the right to be forgotten was expressly codified in Article 17 of the General Data Protection Regulation (GDPR) as the "right to erasure ('right to be forgotten')." Pursuant to Article 17(1) of the GDPR, the data subject has the right to obtain from the controller the erasure of personal data concerning them without undue delay where the data are no longer necessary in relation to the purposes for which they were collected or otherwise processed, where processing was based on consent and such consent has been withdrawn, or where the data have been unlawfully processed.

As a result of its application in conjunction with the right to erasure, the right to be forgotten is not limited solely to situations involving the publication of personal data by news outlets or search engine operators. It may also extend to requests for the deletion of personal data from public registers after a certain period of time, as well as to the erasure of unlawfully processed personal data, irrespective of whether such data have been published.

Furthermore, pursuant to Article 17(2) of the GDPR, where the controller has made the personal data public and is obliged to erase such data, the controller, taking account of available technology and the cost of implementation, shall take reasonable steps, including technical measures, to inform other controllers processing the personal data that the data subject has requested the erasure of any links to, or copies or replications of, those personal data.

The GDPR also establishes a number of criteria for balancing the "right to be forgotten" with other public and private interests, including freedom of expression and the right to receive information. Following the entry into force of Article 17 of the GDPR, the Court of Justice of the European Union (CJEU) provided interpretative guidance on the obligations arising from this provision for search engine operators, taking into account, on the one hand, the fundamental rights guaranteed by Articles 7 and 8 of the Charter, and, on the other hand, the freedom of expression and the right to receive information as enshrined in Article 11 of the Charter.

The General Data Protection Regulation (GDPR) provides for certain protections and exemptions for entities classified as "media" organizations, including newspapers and other journalistic activities. However, since Google has deliberately refrained from being classified as a "media company," it does not benefit from such protections. The courts of the European Union have held that Google, as a multinational corporation collecting and processing data, must be regarded as a "data controller" within the meaning of the EU data protection framework. Such data controllers are required, under EU law, to remove information that is "inadequate, irrelevant, or no longer relevant," thereby conferring a global significance on the directive in question.

The European Union constitutes a highly influential supranational entity at the international level, and the observable trend within the EU towards the recognition of the right to be forgotten may be regarded as an indication of its emerging status as a global legal right. In support of this approach, in 2012 the United States Presidential Administration introduced the "Privacy Bill of Rights" aimed at protecting consumers in the online environment. However, this instrument did not attain the status of law [10].

Case Law of the European Court of Human Rights

The European Court of Human Rights (ECtHR) assesses the "right to be forgotten" within the framework of Article 8 of the European Convention on Human Rights (ECHR), which guarantees the right to respect for private and family life. According to the Court's case law, a claim relating to the right to be forgotten does not constitute an autonomous (separate) right protected by the Convention; rather, it may be invoked only within the scope of Article 8, and only in cases where there is a sufficiently serious interference with an individual's reputation.

The ECtHR has been called upon to examine cases concerning the right to be forgotten from two principal perspectives: on the one hand, cases in which individuals claim that their right to respect for their reputation has been violated as a result of the publication of personal data by news publishers and search engine operators; and, on the other hand, cases in which the managers of newspaper or journalistic archives accessible via the internet allege an interference with their freedom of expression and their right to impart information.

Irrespective of the specific perspective of the case, the ECtHR examines whether a fair balance has been struck between, on the one hand, the freedom of expression and the public's right to receive information protected under Article 10 of the Convention, and, on the other hand, the right of data subjects to the protection of their reputation as enshrined in Article 8.

In exercising this supervisory function, the task of the ECtHR is to determine, having regard to the circumstances of the case as a whole, whether the decisions of the national courts have achieved a fair balance between the competing rights and whether they have applied the criteria established in the Court's case law. The ECtHR has emphasized that these criteria must be applied in a manner tailored to the specific features of each case, for example depending on whether the case concerns the deletion of originally published information, the removal of information from search engine indexing (de-indexing), or the modification of information contained in the electronic version of an article in an archive.

Where the ECtHR concludes that the national authorities have acted in accordance with the criteria established in its case law, it requires particularly strong reasons to substitute its own assessment for that of the domestic courts [11].

In general, the Court has explained in its judgments that the right to be forgotten is based on the individual's interest in the deletion, alteration, or restriction of access to past information available on the internet that adversely affects their present situation. Individuals seeking the removal of such negative information do not wish to be confronted indefinitely with their past actions or public statements in various contexts (for example, when seeking employment or engaging in business relations) [4].

3. National Law:

According to Article 32 of the Constitution of the Republic of Azerbaijan, everyone has the right to inviolability of private life. Everyone has the right to keep the secrets of their private and family life.

Except in cases prescribed by law, interference with private and family life is prohibited [12]. Everyone has the right to protection against unlawful interference with their private and family life.

Without a person's consent, the collection, storage, use, and dissemination of information about their private life is not permitted. Except in cases established by law, no one may be subjected to surveillance, video or photo recording, audio recording, or other similar actions without their knowledge or against their objection. Except in cases provided by law, everyone has the right to become acquainted with information collected about them. Everyone has the right to request the correction or removal (cancellation) of information collected about them that is untrue, incomplete, or obtained in violation of legal requirements [1]. The article also stipulates that the scope of personal data, as well as the conditions for their processing, collection, transfer, use, and protection, shall be determined by law.

In line with this constitutional approach, the Law of the Republic of Azerbaijan "On Personal Data" dated 11 May 2010, No. 998-IIIQ was adopted.

According to Article 7.1.5 of the Law "On Personal Data" of the Republic of Azerbaijan, one of the rights of the data subject is to request the clarification of personal data collected and processed about them in an information system and, except in cases provided by law, to request their destruction, as well as to apply for the transfer of such data to archives in accordance with established procedures [2].

A Resolution entitled "On the Protection of Personality Rights" was adopted by the Plenum of the Supreme Court of the Republic of Azerbaijan on 24 December 2025. In this decision, the "right to be forgotten" is regarded as an integral component of the right to personal inviolability [3].

According to the said Resolution, the "right to be forgotten" refers to the right to request the deletion, anonymisation, concealment, archiving, or implementation of other measures restricting access to publicly available information (including text, audio, images, etc.) previously disseminated on digital platforms that adversely affects the interests of a person, on the ground that such information has lost its relevance or no longer holds any significance from the perspective of state or public interest. This right protects individuals primarily from unjustified negative impacts of disseminated information on their private and social lives. It should be noted that even if disseminated information has subsequently lost its public or state relevance or topicality, its deletion shall not be permitted if, at the time the claim is brought, it does not adversely affect the interests of the concerned person. The loss of relevance of information refers to the situation where previously publicly significant information has become outdated and, at the time of filing the claim, no longer carries any public interest or importance.

The right to be forgotten is not limited exclusively to natural persons; it is also recognized as a non-property right applicable to legal entities. For instance, this may include a request by a legal entity for the deletion of media publications from five years earlier concerning defects in its manufactured products.

The Resolution further states that when examining claims concerning the right to be forgotten, courts should take into account that the existence of consent by the data subject at the time of publication, or the presence of other circumstances excluding unlawfulness of interference with personality rights, is not relevant to the assessment of the merits of such claims. For example, this includes cases such as the request for the removal from information resources of photographs depicting a person whose facial features were disfigured as a result of a road traffic accident; the request by an individual entrepreneur A for the removal of lawfully published media reports from 2010 concerning tax evasion that negatively affected his business reputation, on the grounds that the tax debt has since been repaid and the information no longer serves public interest; or the request by a well-known musician for the removal of a 2020 media interview concerning the breakdown of his marital relationship due to alleged infidelity, based on the interests of his children, and similar cases.

The restriction of access to information must be requested from the operators hosting such information, including online digital platforms, media entities, and others. In such claims, the defendants are the entities hosting the relevant information [3].

4. The Importance, Benefits, and Risks of the Right to Be Forgotten:

The right to be forgotten is of significant importance in the digital age in terms of ensuring respect for an individual's private life, protecting human dignity, and guaranteeing the possibility of exercising control over one's own life trajectory. The prolonged and uncontrolled dissemination of information in the internet environment may result in individuals being continuously subjected to public judgment based on events that occurred in the past. This right enables individuals to rebuild their social and professional lives independently of past mistakes or information that has lost its relevance.

At the same time, the right to be forgotten functions as an integral component of the right to the protection of personal data and ensures the development of human rights in accordance with *contemporary conditions. In particular, given the strong influence of search engines on personal reputation, this right plays an important role in restoring the balance of information. There is a direct and close interrelationship between the right to be forgotten and personal reputation. The prolonged circulation of information in the digital environment plays a decisive role in shaping an individual's public image. The continuous prominence of outdated, incomplete, or decontextualized information in search engine results may cause disproportionate and, at times, unjust harm to a person's reputation.*

From this perspective, the right to be forgotten serves as a legal mechanism for the restoration and protection of an individual's reputation. In particular, information relating to events that have lost their relevance, minor legal violations, or allegations that have subsequently been proven unfounded may negatively affect a person's social status, professional activity, and public perception. The right to be forgotten allows for the removal of such information from circulation, thereby preventing the formation of a persistent "digital shadow" over an individual's reputation.

Especially in the context of children and family relations, the right to be forgotten also holds significant importance. Thus, information published in the digital environment about a parent - whether it concerns legal disputes, criminal proceedings, private life, financial difficulties, or other reputation-related facts - affects not only that individual but also, indirectly, their family members, particularly their children. This is due to the long-lasting nature of internet memory. Information associated with a parent's name can easily be retrieved through search engines. This, in turn, may negatively affect the child's social relationships in the school environment, psychological well-being, as well as future professional and social opportunities. In such cases, the "right to be forgotten" functions not merely as an individual right but also as a mechanism for the protection of family interests. Although a child is an independent legal subject, their social identity is often associated with that of their parents. Where information concerning a parent is outdated and has lost its relevance, where the sentence has been served and legal consequences have been extinguished, and where the information relates to private life and no longer serves any public interest, the continued accessibility of such information may constitute an indirect interference with the child's social dignity. In this context, the "right to be forgotten" may serve not only to restore the reputation of the parent but also to prevent the stigmatization of the child within the social environment.

At the same time, the application of the right to be forgotten entails several serious legal and practical risks. One of the most significant risks is the potential interference with freedom of expression and the public's right to receive information. In particular, the removal of historically significant facts, information of public interest, or journalistic investigations from circulation may weaken freedom of information, undermine media independence, and disrupt mechanisms of public oversight.

Another important issue concerns the transboundary application of the right to be forgotten. While the internet is global in nature, legal mechanisms predominantly exist at national or regional levels. This creates difficulties in enforcement and generates legal uncertainty. Furthermore, the subjective nature of criteria such as "loss of relevance" or "absence of public interest" increases the risk of abuse of the right.

Thus, the right to be forgotten should not be understood as a means of erasing or artificially reshaping reputation, but rather as a mechanism ensuring its fair and balanced protection. In applying this right, the principles of proportionality and balance between the individual's right to reputation, freedom of expression, and the public interest must be strictly observed. It should be noted that although the right to be forgotten serves the protection of digital reputation, it is legitimate and effective only when applied in a manner that is balanced with public interest and freedom of expression.

5. Conclusion:

The right to be forgotten is an important legal mechanism in the contemporary digital society, serving the protection of an individual's private life, dignity, and reputation in the context of the rapid and uncontrolled dissemination of personal data. This right enables individuals to request the removal of information that has lost its relevance, has a harmful impact, or produces a disproportionate effect, and it constitutes a clear example of the adaptation of human rights to the digital environment.

At the same time, the right to be forgotten is not absolute, and its application must be balanced against freedom of expression, freedom of the press, and the public's right to receive information. For the more effective and fair implementation of this right, it is appropriate to take measures in the following directions:

- *Clarification of legal criteria – In normative acts, the grounds for the deletion of information, particularly the concepts of "public interest," "outdated information," and "harmful impact," should be defined in a clear and measurable manner.*

• Establishment of a balanced decision-making mechanism – Decisions regarding the removal of information should not be left solely to the internal policies of platforms; they should be taken with the involvement of independent judicial or supervisory authorities.

• Protection of freedom of expression and media freedom – Exceptions for journalistic activity, historical facts, and information of public interest should be clearly and broadly ensured.

• Strengthening cross-border cooperation – Given the global nature of the internet, legal cooperation mechanisms between states concerning the deletion of information should be developed.

• Awareness-raising and increased responsibility – Individuals should be better informed about the legal and reputational consequences of sharing personal data, while platforms should operate in a transparent, accurate, and accountable manner [14].

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Medical sciences

THE ROLE OF NEONATAL SCREENING AND ROUTING OF PATIENTS WITH SUSPECTED CHD IN REDUCING EARLY INFANT MORTALITY

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Relevance

Congenital heart defects are one of the leading causes of neonatal and early infant mortality. A significant proportion of critical congenital heart defects are not clinically evident immediately after birth and may be missed during routine examination.

Modern approaches include: • neonatal screening (pulse oximetry, echocardiography when indicated), • early referral to specialized centers, • perinatal cardiac pathways.

However, the effectiveness of these systems in real-world clinical practice (especially in regional settings) remains poorly studied.

Study Objective. *To evaluate the impact of a neonatal screening and referral system for patients with suspected congenital heart defects on early infant mortality rates.*

Hypothesis. *The implementation of standardized neonatal screening and clear referral of patients with suspected congenital heart defects reduces early neonatal and infant mortality.*

Keywords: *Congenital heart defects, neonatology, screening, referral, infant mortality, newborns*

Study Materials and Research Methods

The study material included: medical records of newborns with suspected congenital heart defects observed in a hospital setting in Almaty; results of instrumental examinations (pulse oximetry, echocardiography, and, when available, additional imaging methods); statistical reports on early neonatal and infant mortality; and scientific literature sources (original articles, reviews, clinical guidelines) published in PubMed, Scopus, and Google Scholar over the past 10–15 years.

The following methods were used in the study: • retrospective analysis of clinical data of newborns with suspected congenital heart defects; • descriptive statistics to assess the frequency of detection of congenital heart defects and the structure of defects; • comparative analysis of diagnostic times and patient routing; • systematic review of the literature on modern approaches to neonatal screening for congenital heart defects; • an analytical method for comparing local data with international clinical guidelines.

Inclusion Criteria: The analysis included newborns with suspected congenital heart defects in the neonatal period and with a confirmed diagnosis of congenital heart disease based on echocardiography.

Exclusion Criteria: The following patients were excluded: those with acquired heart disease; those with incomplete medical documentation; and those with unconfirmed diagnosis using instrumental methods.

Statistical Analysis: Data were processed using descriptive statistics. Quantitative data are presented as mean values and standard deviations, while qualitative data are presented as absolute and relative values (%). When necessary, group comparisons were performed with a significance level of $p < 0.05$.

Introduction

Congenital heart defects (CHDs) are among the most common congenital anomalies and are a leading cause of neonatal and infant mortality. According to various studies, the incidence of CHDs averages 6-10 cases per 1,000 live births, with a significant proportion of these being critical forms requiring early surgical or interventional intervention. Late diagnosis of congenital heart defects (CHD) poses a particular clinical challenge, as failure to promptly identify them leads to severe hemodynamic compromise, decompensation of the newborn, and an increased risk of death. Therefore, early detection of congenital heart defects in the neonatal period is considered a key factor in reducing infant mortality.

Despite accumulated international experience, issues related to optimizing the referral of newborns with suspected CHD and assessing the actual effectiveness of screening programs in specific regions remain unresolved. In particular, organizational barriers affecting the timing of diagnosis and treatment initiation have been insufficiently studied. In this regard, conducting a retrospective analysis *of clinical data in combination with a review of modern literature allows us to evaluate existing approaches to neonatal screening and routing of patients with CHD, as well as to identify areas for their improvement.*

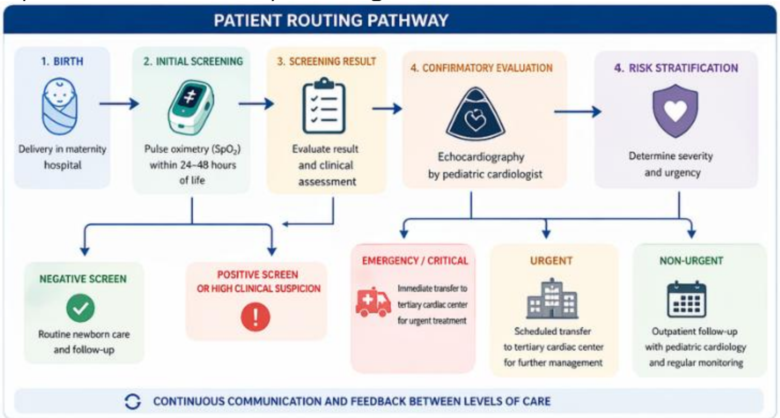
Results

This retrospective analysis examined clinical data from newborns with suspected congenital heart defects and compared them with current scientific literature on neonatal screening and patient referral.

The analysis included cases of newborns with suspected congenital heart defects, some of whom had their diagnosis confirmed by echocardiography. The most frequently identified defects were ventricular septal defects, atrial septal defects, tetralogy of Fallot, and other critical congenital heart defects.

An analysis of the diagnostic timing revealed that a significant proportion of patients with critical congenital heart defects were diagnosed in the neonatal period. However, in some cases, there was a delay in diagnosis verification due to late referral for echocardiography. Patients with late diagnosis had a more severe clinical condition at the time of diagnosis. An analysis of patient routing revealed that referrals to specialized cardiology centers were most often made after the onset of clinical symptoms, such as cyanosis, respiratory failure, or signs of heart failure. Early referrals based on screening results were associated with more stable hemodynamics and a lower incidence of complications.

A comparison with literature data showed that the introduction of pulse oximetry screening improves the early detection of critical congenital heart disease (CHD), but its effectiveness depends on adherence to follow-up assessment and referral algorithms.



Discussion

The data obtained during the analysis confirm that congenital heart defects remain a key cause of early neonatal and infant mortality, consistent with the results of large epidemiological studies and international registries. Despite advances in prenatal and postnatal diagnosis, a significant proportion of critical congenital heart defects (CHDs) are still detected late, worsening the prognosis and increasing the incidence of complications.

A literature review showed that the introduction of neonatal screening, particularly pulse oximetry, significantly increases the detection of critical CHDs in the early neonatal period. However, the effectiveness of screening in real-world clinical practice depends not only on the diagnostic method itself but also on the organization of subsequent stages of care, including patient referral to specialized centers.

The results of the retrospective analysis demonstrate that the main factor influencing outcomes in newborns with CHDs is the time to diagnosis and initiation of specialized treatment. Delayed referral, especially at the primary healthcare level, leads to a worsening of the clinical condition of patients and an increased risk of early mortality. These data are consistent with the results of international studies emphasizing the critical role of time-to-diagnosis and time-to-intervention in prognosis in congenital heart disease.

Thus, these results highlight that the effectiveness of reducing early infant mortality in congenital heart disease is determined not only by the implementation of screening programs but also by the comprehensive organization of the referral system. Optimizing interactions between maternity wards, neonatal services, and cardiology centers is key to improving outcomes.

Conclusion

The conducted analysis of the literature and retrospective clinical data confirms that congenital heart defects remain a significant cause of early neonatal and infant mortality. The effectiveness of early *detection of these pathologies is determined not only by the availability of screening programs but also by the organization of subsequent patient referral to specialized cardiology centers.*

It has been established that timely diagnosis and early referral of newborns with suspected CHD contribute to a more stable clinical condition of patients and a potential reduction in the incidence of adverse outcomes. At the same time, the identified organizational delays highlight the need to improve the system of interaction between primary care, neonatal services, and specialized centers.

Thus, optimization of neonatal screening combined with clearly structured patient referral is an important approach to reducing early infant mortality due to congenital heart defects and improving the quality of medical care for newborns.

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THE ROLE OF PCR METHOD IN THE DIAGNOSIS OF UROGENITAL INFECTIONS: EFFECTIVENESS OF THE STI-8 PANEL

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Ntroduction: *One of the most important challenges facing modern medicine—particularly urology, gynecology, and venereology—is the timely detection of infectious-inflammatory diseases of the urogenital tract. Sexually transmitted infections (STIs) are not only an individual health issue but also a global socio-economic burden affecting reproductive health. According to the latest statistics from the World Health Organization (WHO), more than 370 million new cases of curable STIs (chlamydia, gonorrhea, trichomoniasis, etc.) are registered worldwide each year.The clinical presentation of urogenital infections has significantly changed in recent decades. While previously these infections manifested with acute symptoms (profuse discharge, severe pain), currently an increase in asymptomatic or mildly symptomatic (subclinical) forms is observed. This "hidden" course leads to delayed medical consultation. As a result, untreated infections may cause chronic prostatitis, epididymitis, and impaired spermatogenesis in men, and pelvic inflammatory disease, ectopic pregnancy, and secondary infertility in women. Another major challenge in modern diagnostics is the presence of mixed infections or polymicrobial associations. In many cases, not just one but several pathogenic and opportunistic microorganisms are involved in the inflammatory process simultaneously. Although traditional microscopic examination and bacteriological culture methods have high specificity, their sensitivity is insufficient for detecting many microorganisms. In the present study, the results of applying the STI-8 multiplex PCR test in patients presenting with urogenital complaints were analyzed, and the role of this method in diagnostic speed and in determining комплекс treatment strategies was scientifically and practically substantiated.*

Objective: *To determine the diagnostic effectiveness of the STI-8 multiplex PCR panel and the frequency of pathogen detection in patients suspected of having urogenital pathology.*

Materials and Methods: *The study was conducted in the central laboratory department of the Educational Surgical Clinic of Azerbaijan Medical University (AMU ESC). Urethral swab samples collected from patients under aseptic conditions were used as biological material.*

During the study, Real-Time PCR (Polymerase Chain Reaction), one of the most advanced achievements of molecular genetic diagnostics, was applied. The STI-8 test system used operates in a multiplex format, allowing the detection of the eight most clinically significant pathogens of the urogenital tract in a single reaction. These include both obligate pathogens and clinically important opportunistic microorganisms. For opportunistic microorganisms, quantitative analysis (titer values) was used, enabling differentiation between asymptomatic carriage and active inflammatory processes.

Results: *The results of the study led to the following conclusions:*
The STI-8 multiplex PCR panel applied in the laboratory of the Educational Surgical Clinic of AMU enabled the detection of latent or overt pathogens in 14.7% of patients with urogenital symptoms.

Conclusion: *The study demonstrated that in men, the frequency of obligate pathogens (especially N. gonorrhoeae) is higher, whereas in women, dysbiotic conditions associated with increased quantitative levels of opportunistic microorganisms (such as Gardnerella and Ureaplasma) predominate. This confirms the necessity of a personalized diagnostic approach for both sexes.*

Keywords: *sexually transmitted infections, Real-Time PCR, multiplex PCR, STI-8 panel*

MODERN APPROACHES TO MEDICAL REHABILITATION: MULTIDISCIPLINARY AND FAMILY-CENTERED SUPPORT IN PEDIATRIC PRACTICE

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СУЧАСНІ ПІДХОДИ ДО МЕДИЧНОЇ РЕАБІЛІТАЦІЇ: МУЛЬТИДИСЦИПЛІНАРНА ТА СІМЕЙНО-ОРІЄНТОВАНА ПІДТРИМКА В ПЕДІАТРИЧНІЙ ПРАКТИЦІ

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Abstract

The thesis examines multidisciplinary and family-centered support as one of the key prerequisites for effective pediatric rehabilitation. It is shown that the integration of medical, psychological, educational, and social efforts together with the active involvement of the family makes it possible not only to correct functional impairments but also to improve the child's daily activity, socialization, and quality of life. It is emphasized that a family-oriented model contributes to the continuity of the rehabilitation process and increases the effectiveness of interventions in the child's natural environment. Particular attention is paid to the educational value of such models in the training of future physicians.

Анотація

У тезі розглянуто мультидисциплінарний і сімейно-центрований підхід як одну з ключових умов ефективної педіатричної реабілітації. Показано, що поєднання зусиль медичних, психологічних, педагогічних і соціальних фахівців разом із активною участю родини дозволяє *забезпечити не лише корекцію функціональних порушень, а й покращення повсякденної активності, соціалізації та якості життя дитини. Підкреслено, що сімейно-орієнтована модель сприяє безперервності реабілітаційного процесу та підвищує результативність втручань у природному середовищі дитини. Окрему увагу приділено освітньому значенню таких моделей для підготовки майбутніх лікарів.*

Keywords: *medical rehabilitation; pediatrics; multidisciplinary approach; family-centered care; socialization; functional limitations; medical education.*

Ключові слова: *медична реабілітація; педіатрія; мультидисциплінарний підхід; сімейно-центрований підхід; соціалізація; функціональні обмеження; медична освіта.*

Медична реабілітація в педіатричній практиці є складним і багаторівневим процесом, ефективність якого визначається не лише правильністю окремих лікувальних втручань, а й здатністю системи охорони здоров'я забезпечити узгоджену, тривалу та індивідуалізовану підтримку дитини і її родини [1,2]. У сучасному розумінні реабілітація дитини з функціональними обмеженнями не може зводитися лише до корекції окремого дефіциту, оскільки її метою є не тільки покращення клінічного стану, а й досягнення максимально можливого рівня активності, участі, адаптації та якості життя [1,3].

Однією з ключових умов ефективної допомоги дітям із хронічною патологією, наслідками травм, порушеннями розвитку та іншими станами, що супроводжуються стійкими функціональними труднощами, є мультидисциплінарний підхід [1,4]. Його сутність полягає в інтеграції зусиль різних фахівців, які спільно оцінюють потреби дитини, визначають пріоритетні цілі реабілітації та реалізують індивідуалізовану програму супроводу. У педіатричній практиці до такої команди можуть входити педіатр, дитячий невролог, ортопед, фізичний терапевт, ерготерапевт, логопед, психолог, соціальний працівник, медична сестра, а також інші спеціалісти залежно від клінічної ситуації [2,4]. Саме така модель дозволяє розглядати дитину не фрагментарно, а комплексно — з урахуванням рухових, когнітивних, емоційно-комунікативних, побутових і соціальних аспектів функціонування.

Мультидисциплінарність має особливе значення в дитячому віці, оскільки функціональні обмеження в цей період впливають не лише на теперішній стан дитини, а й на її подальший розвиток, навчання, соціалізацію та майбутню інтеграцію в доросле життя [2,3]. Саме тому реабілітаційна допомога повинна бути спрямована не тільки на досягнення короткострокового клінічного ефекту, але й на створення передумов для максимальної самостійності дитини в майбутньому. У цьому контексті особливого значення набуває участь родини як постійного середовища розвитку, підтримки та щоденної практичної реалізації реабілітаційних цілей.

Сімейно-центрований підхід є одним із найбільш значущих сучасних принципів педіатричної реабілітації [4,5]. Він передбачає, що батьки або інші законні представники дитини не є пасивними спостерігачами лікувального процесу, а розглядаються як повноправні учасники команди. Такий підхід базується на повазі до досвіду родини, визнанні її повсякденних зусиль, залученні до прийняття рішень і спільному формуванні реалістичних та клінічно значущих цілей допомоги. Практична цінність сімейно-центрованої моделі полягає в тому, що саме родина забезпечує перенесення реабілітаційних заходів із клінічного середовища в повсякденне життя дитини, що суттєво підвищує сталість і результативність втручань [4].

Важливо підкреслити, що сімейно-центрований підхід не означає перекладання професійної відповідальності на батьків. Його зміст полягає в іншому: у створенні партнерської моделі, де фахівці надають клінічну, методичну та психологічну підтримку, а родина забезпечує безперервність реалізації рекомендацій у природному середовищі дитини. Така взаємодія є особливо важливою для дітей, які потребують тривалого супроводу, корекції самообслуговування, підтримки рухової активності, розвитку комунікативних навичок та адаптації до освітнього середовища [2,4,5].

Не менш вагомим компонентом сучасної педіатричної реабілітації є орієнтація на участь дитини в житті суспільства. Сучасні реабілітаційні підходи підкреслюють, що participation слід розглядати не лише як кінцеву мету, а і як інструмент самого відновного процесу [3]. Це означає, що залучення дитини до повсякденних активностей, навчання, гри, спілкування, культурних та соціальних подій є не додатковим елементом, а важливою частиною клінічно значущого результату. У такому підході реабілітація набуває не суто медичного, а цілісного функціонального характеру.

У дитячій практиці це особливо важливо ще й тому, що ізольовані втручання без соціального й освітнього компонентів часто не дають повного ефекту. Навіть за наявності позитивної динаміки в русі, мовленні чи побутових навичках дитина може залишатися обмеженою в участі, якщо не враховано середовище, сімейний ресурс, доступність освіти чи психологічну готовність до соціалізації. Саме тому взаємодія між медичним, психологічним, педагогічним і соціальним блоками допомоги має розглядатися як обов'язкова умова якісної реабілітації, а не як факультативне доповнення [2-5].

Для освітнього процесу в медичному університеті така модель має особливу цінність. Вона дозволяє формувати у майбутніх лікарів ширше клінічне мислення, в якому дитина з функціональними порушеннями сприймається не лише як носій діагнозу, а як особа, що розвивається в конкретному сімейному, освітньому та соціальному середовищі [4,6]. У межах такої підготовки важливо навчити студента не тільки встановлювати діагноз і визначати метод лікування, а й бачити роль інших спеціалістів, значення сімейної участі, потребу в довготривалій маршрутизації та необхідність оцінки функціонального результату. Це особливо актуально для сучасної України, де потреба у тривалому реабілітаційному супроводі дітей та родин продовжує зростати.

Ще одним важливим виміром такої моделі є її зв'язок із наступністю допомоги. Мультидисциплінарна і сімейно-орієнтована реабілітація в педіатрії формує основу для подальшого переходу в дорослу систему медичного спостереження [2,6]. Саме на дитячому етапі закладаються підходи до документування функціонального статусу, оцінки потреб у допоміжних засобах, формування рівня самостійності, а також розуміння тривалих обмежень, які можуть мати значення і в подальшому житті. Таким чином, роль педіатричної команди виходить за межі поточного лікування і фактично створює підґрунтя для безперервного маршруту пацієнта.

Для України розвиток саме таких моделей має особливу практичну значущість. Умови тривалого суспільного та безпекового напруження, підвищення потреби в реабілітації та зростання кількості дітей, які потребують довготривалого функціонального супроводу, вимагають не лише розширення реабілітаційних послуг, а й переосмислення їх організації [1]. Саме мультидисциплінарні та сімейно-центровані моделі дозволяють зробити допомогу не епізодичною, а безперервною, не формальною, а функціонально орієнтованою, не вузькоспеціалізованою, а дійсно людиноцентричною.

Отже, сучасна педіатрична реабілітація повинна ґрунтуватися на поєднанні мультидисциплінарної взаємодії та сімейно-центрованого підходу. Саме така модель дозволяє забезпечити комплексність допомоги, безперервність супроводу, реалістичність поставлених цілей і кращу адаптацію дитини до повсякденного життя. Її клінічна цінність полягає у покращенні функціонального стану та участі дитини, а освітня — у формуванні в майбутніх лікарів сучасного бачення реабілітації як інтегрованого, міждисциплінарного і довготривалого процесу.

Висновки

Мультидисциплінарний і сімейно-центрований підхід є однією з ключових умов ефективної педіатричної реабілітації. Така модель забезпечує не лише клінічну корекцію порушених функцій, а й підтримує повсякденну активність, участь, соціалізацію та довготривалу адаптацію дитини. Її впровадження в освітню та практичну площину сприяє формуванню більш цілісної, функціонально орієнтованої системи допомоги.

Перспективи

Перспективним є подальше впровадження мультидисциплінарних і сімейно-орієнтованих моделей у програми педіатричної реабілітації та підготовку майбутніх лікарів. Особливого значення набуває стандартизація командної взаємодії, покращення наступності між рівнями допомоги та розроблення практичних алгоритмів участі родини в реабілітаційному процесі. Для України цей напрям може стати важливим підґрунтям для розвитку сучасної, людиноцентричної системи реабілітаційної допомоги.

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SYSTEM OF ASSESSMENT AND CERTIFICATION OF PARAMEDICS: A COMPETENCY-BASED APPROACH TO QUALITY CONTROL

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СИСТЕМА ОЦІНЮВАННЯ ТА СЕРТИФІКАЦІЇ ПАРАМЕДИКІВ: КОМПЕТЕНТНІСНИЙ ПІДХІД ДО КОНТРОЛЮ ЯКОСТІ ПІДГОТОВКИ

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Abstract

The study examines approaches to developing a system of assessment and certification of paramedics as a key component of ensuring training quality. The relevance of the research is обумовлена the need to standardize professional competencies and implement objective methods for evaluating practical skills. Analytical and systemic approaches, as well as a synthesis of international experience, were applied. The feasibility of implementing a multi-level assessment system, including theoretical *testing, simulation-based evaluation, and clinical performance assessment, is substantiated. A competency-based certification system is shown to improve training quality and patient safety.*

Анотація

У роботі розглянуто підходи до формування системи оцінювання та сертифікації парамедиків як ключового елементу забезпечення якості їх підготовки. Актуальність дослідження зумовлена необхідністю стандартизації професійних компетентностей та впровадження об'єктивних методів контролю практичних навичок. Використано аналітичний та системний підходи, а також узагальнення міжнародного досвіду. Обґрунтовано доцільність впровадження багаторівневої системи оцінювання, що включає теоретичний контроль, симуляційне тестування та оцінку клінічної діяльності. Показано, що компетентнісно-орієнтована система сертифікації дозволяє підвищити якість підготовки та безпеку пацієнтів.

Keywords: paramedicine; assessment; certification; competency-based approach; simulation testing; medical education; emergency care

Ключові слова: парамедицина; оцінювання; сертифікація; компетентнісний підхід; симуляційне тестування; медична освіта; екстрена допомога

Сучасний розвиток системи підготовки парамедиків потребує не лише оновлення освітніх програм, але й створення ефективної системи оцінювання та сертифікації, яка забезпечує об'єктивний контроль рівня професійної підготовки.

Традиційні підходи до оцінювання, орієнтовані переважно на теоретичні знання, не дозволяють повною мірою визначити готовність фахівця до роботи в умовах невідкладних станів [1,2]. У зв'язку з цим виникає необхідність впровадження компетентнісно-орієнтованих методів оцінювання, що базуються на перевірці практичних навичок.

Метою роботи є обґрунтування моделі системи оцінювання та сертифікації парамедиків, що відповідає сучасним вимогам до якості медичної допомоги.

Запропонована система оцінювання включає кілька взаємопов'язаних рівнів.

1. Теоретичний контроль.

Передбачає перевірку базових знань з невідкладної медицини, алгоритмів надання допомоги та клінічного мислення. Однак, він не може розглядатися як самостійний критерій оцінки готовності фахівця.

2. Симуляційне тестування.

Є ключовим компонентом оцінювання, що дозволяє об'єктивно оцінити практичні навички в умовах, максимально наближених до реальних. Використання стандартизованих сценаріїв забезпечує відтворюваність результатів та можливість їх порівняння [3].

3. Об'єктивний структурований клінічний іспит (OSCE).

Дає можливість оцінити виконання окремих клінічних маніпуляцій, комунікацію з пацієнтом та командну взаємодію. Даний метод широко використовується у міжнародній практиці [4].

4. Оцінка клінічної діяльності.

Передбачає аналіз роботи парамедика у реальних умовах, включаючи дотримання протоколів, швидкість прийняття рішень та ефективність втручань.

Особливістю сучасної системи оцінювання є її безперервний характер. Концепція безперервного професійного розвитку (CPD) передбачає регулярне оновлення знань та повторну сертифікацію фахівців [5].

Важливим аспектом є стандартизація критеріїв оцінювання, що дозволяє забезпечити єдиний рівень підготовки незалежно від освітнього закладу.

Запровадження багаторівневої системи оцінювання сприяє зниженню кількості помилок у клінічній практиці та підвищенню безпеки пацієнтів.

Висновки

1. Система оцінювання є ключовим елементом забезпечення якості підготовки парамедиків.

2. Традиційні підходи до оцінювання не забезпечують достатнього рівня об'єктивності.

3. Найбільш ефективною є багаторівнева система, що включає теоретичний контроль, симуляційне тестування та оцінку клінічної діяльності.

4. Впровадження OSCE та інших практикоорієнтованих методів дозволяє об'єктивно оцінити рівень підготовки.

5. Система безперервного професійного розвитку є необхідною умовою підтримання компетентності фахівців.

Перспективи подальших досліджень

Перспективним є подальше вдосконалення методів оцінювання практичних навичок парамедиків та їх стандартизація. Доцільним є також впровадження цифрових інструментів моніторингу професійної діяльності. Отримані результати можуть бути використані при розробці національної системи сертифікації парамедиків.

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PSYCHOSOMATIC DISORDERS IN THE STRUCTURE OF FUNCTIONAL DYSPHONIA: A COMPARATIVE ANALYSIS OF CLINICAL MANIFESTATIONS IN TEACHERS AND VOCALISTS

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ПСИХОСОМАТИЧЕСКИЕ НАРУШЕНИЯ В СТРУКТУРЕ ФУНКЦИОНАЛЬНЫХ ДИСФОНИЙ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ КЛИНИЧЕСКИХ ПРОЯВЛЕНИЙ У ПЕДАГОГОВ И ВОКАЛИСТОВ

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Abstract

Functional dysphonias remain a complex problem in phoniatrics due to many contributing factors. This study compared functional dysphonias in teachers (high vocal load but no professional auditory control) and vocalists (constant auditory monitoring and high motivation to preserve their voice). The results showed significant differences: teachers predominantly developed the hypotonic form (weakness of the laryngeal muscles) in 69% of cases, whereas vocalists predominantly developed the hypertonic form (excessive muscle tension) in 61.9% of cases. In teachers, high situational anxiety was associated with reduced mobility of the vocal folds. In vocalists, conversely, high personal anxiety correlated with excessive vocal fold closure and increased vocal tension. Vocalists also showed signs of hidden depression and difficulty recognizing their own emotions, which often delayed them from seeking medical help. Overall, emotional stress not only accompanies the disorder but actively shapes its type. Teachers develop hypotonicity as a kind of "giving up" of vocal function, whereas vocalists develop hypertonicity as a hypercompensatory mechanism to maintain an "ideal" sound. Treatment should include psychological support, such as cognitive behavioral therapy or biofeedback, taking into account the patient's professional affiliation.

Аннотация

Функциональные дисфонии остаются сложной проблемой в фониатрии из-за множества влияющих факторов. В данном исследовании сравнивались функциональные дисфонии у педагогов (высокая речевая нагрузка без профессионального слухового контроля) и вокалистов (постоянный слуховой мониторинг и высокая мотивация сохранить голос). Результаты показали значительные различия: у педагогов в 69% случаев преобладала гипотонусная форма (слабость мышц гортани), тогда как у вокалистов в 61,9% случаев доминировала гипертонусная форма (чрезмерное напряжение мышц). У педагогов высокая ситуативная тревожность была связана с уменьшением подвижности голосовых складок. У вокалистов, напротив, высокая личностная тревожность коррелировала с избыточным смыканием голосовых складок и повышением голосового напряжения. У них также отмечались признаки скрытой депрессии и трудности с распознаванием собственных эмоций, что часто задерживало обращение за медицинской помощью. В целом эмоциональный стресс не просто сопутствует расстройству, но и активно формирует его тип. У педагогов развивается гипотонус как своего рода «отказ» от голосовой функции, тогда как у вокалистов формируется гипертонус как гиперкомпенсаторный механизм для поддержания «эталонного» звучания. Лечение должно включать психологическую поддержку, такую как когнитивно-поведенческая терапия или биологическая обратная связь, с учётом профессиональной принадлежности пациента.

Keywords: *functional dysphonia, psychosomatics, teachers, vocalists, anxiety, laryngeal hypertonicity, laryngeal hypotonicity, videostroboscopy, phoniatrics.*

Ключевые слова: *функциональная дисфония, психосоматика, педагоги, вокалисты, тревожность, гипертонус гортани, гипотонус гортани, видеостробоскопия, фониатрия.*

Введение. *Функциональные дисфонии — самая частая проблема с голосом у людей, чья работа связана с речью и пением. По данным разных исследований, они встречаются в 40–70% случаев [1–3]. Раньше считалось, что виной всему — просто слишком большая нагрузка на голос [4]. Но сейчас врачи видят, что дело не только в этом. Главную роль играет психоэмоциональное состояние человека. Именно стресс запускает цепочку: «психика → сбой в работе нервной системы → нарушение мышечного тонуса» [5–7].*

Сегодня, с точки зрения психонейроиммуноэндокринологии, уже нельзя думать о функциональной дисфонии просто как о «болезни от крика» [8]. Гораздо важнее понять, как именно эмоциональное напряжение переходит в телесные симптомы. А это зависит от личных особенностей человека и от того, как устроена его профессиональная деятельность [9–10]. Особенно интересно сравнить две профессии — учителей и вокалистов. Хотя проблемы с голосом возникают у тех и других, условия работы их голосового аппарата совершенно разные [11–12]:

У педагогов — высокая речевая нагрузка, но при этом они не слышат себя со стороны (нет профессионального слухового контроля). Это значит, они могут долго говорить, не замечая перенапряжения [13, 14]. У вокалистов — наоборот: они постоянно контролируют свой голос на слух (например, во время пения или репетиций) [15, 16]. У них очень высокая мотивация сохранить голос в идеальном состоянии, ведь это их «инструмент».

Мы считаем, что эти профессиональные различия влияют не только на то, какая форма дисфонии чаще встречается (слабость мышц гортани или, наоборот, их чрезмерное напряжение), но и на то, как глубоко психологические проблемы переходят в физические симптомы [17, 18].

Цель. *Провести сравнительный анализ клинико-функциональных проявлений функциональных дисфоний у педагогов и вокалистов с определением роли психоэмоционального фактора как модулятора типа мышечного дисбаланса гортани.*

Материал и методы. *Исследование выполнено на базе ЛОР-клиники Национального медицинского центра «Шифобахш» в период с 2024 по 2026 гг. В исследование включено 84 пациента в возрасте от 25 до 55 лет (средний возраст 38,2±5,1 года) с установленным диагнозом функциональной дисфонии. Критерии включения: отсутствие органической патологии гортани (узелки, полипы, папилломатоз исключены при видеостробоскопии), длительность заболевания не менее 3 месяцев, добровольное информированное согласие.*

Дизайн исследования предполагал формирование двух сопоставимых по полу и возрасту групп:

Группа 1 (педагоги): *n=42 (женщины — 40, мужчины — 2). Стаж педагогической деятельности от 5 до 30 лет.*

Группа 2 (вокалисты): *n=42 (женщины — 38, мужчины — 4). Профессиональные солисты-вокалисты и хормейстеры академического жанра. Стаж вокальной деятельности от 7 до 35 лет.*

Методы исследования: *Фиброларингоскопия: проводилась на аппарате [Shtorz]. Оценивались характер смыкания, амплитуда и частота колебаний голосовых складок, наличие/отсутствие тотального или регионального гипертонуса. Акустический анализ: использовался пакет Praat (версия 6.3). Анализировались максимальное время фонации (МВФ), частота основного тона (F0), индекс напряжения (STI — Stress Tolerance Index), индекс шума (NHR). Психометрическое тестирование: Шкала Гамильтона для оценки тревоги (HARS). Опросник реактивной и личностной тревожности Спилбергера-Ханина (STAI). Статистический анализ: использован пакет SPSS Statistics 26. Применялись критерии Манна–Уитни (для сравнения групп), корреляционный анализ Спирмена. Различия считались значимыми при p<0,05.*

Результаты исследования.

1.Структура дисфоний. *При видеостробоскопическом исследовании выявлены значимые различия в распределении форм функциональной дисфонии между группами.*

В группе ***педагогов*** *гипотонусная дисфония (вялый парез внутренних мышц гортани, веретенообразная недостаточность смыкания) диагностирована в* ***69,0%*** *случаев (n=29).*

Гипертонусная форма (вагусный гиперкинез, «смыкательный спазм», тотальный гипертонус вестибулярных складок) — в 31,0% (n=13).

В группе ***вокалистов*** *выявлена противоположная тенденция: гипертонусная форма преобладала и составила* ***61,9%*** *(n=26), гипотонусная — 38,1% (n=16) (p=0,003). При этом у вокалистов с гипертонусом чаще (в 73% случаев) регистрировался феномен «псевдоголосовой щели» и компенсаторное напряжение наружных мышц шеи, что было менее характерно для педагогов.*

2. Акустические параметры. *У педагогов отмечено достоверное снижение МВФ (в среднем 8,2±1,4 сек против 13,5±2,1 сек у вокалистов с гипотонусом, p<0,01) и увеличение индекса шума (NHR>0,15), что отражает невозможность поддержания субглотического давления при психоэмоциональной усталости. У вокалистов с гипертонусом, напротив, МВФ оставалось в пределах нормы (18-22 сек), однако резко возрастал индекс напряжения STI (>1,4 у.е.), регистрировались патологические модуляции частоты основного тона при попытке форсированного звукоизвлечения.*

3.Психометрический профиль и корреляции. *Анализ уровня тревожности показал, что педагоги характеризуются более высокими показателями ситуативной тревожности (СТ) по Спилбергеру (51,3±4,2 балла) по сравнению с вокалистами (46,1±3,8, p<0,05). У вокалистов, однако, доминировала личностная тревожность (ЛТ) (48,9±3,5 балла) и выявлены высокие показатели алекситимии (TAS-26: 74,2±5,1 балла против 62,3±4,3 у педагогов, p<0,01).*

Корреляционный анализ выявил:

В группе ***педагогов****: обратная сильная корреляция между уровнем ситуативной тревожности и амплитудой колебаний голосовых складок (r=-0,72; p<0,01). Вегетативный индекс Кердо смещен в сторону ваготонии (-15,2±2,1), что соответствует гипотонусному типу реагирования.*

В группе ***вокалистов****: прямая корреляция между личностной тревожностью и степенью гипертонуса (r=+0,68; p<0,01), а также между алекситимией и жалобами на «ком в горле» (r=+0,55; p<0,05). Вегетативный индекс Кердо указывал на симпатикотонию (+12,5±3,4).*

Обсуждение. *Наши результаты подтверждают, что психоэмоциональный фактор не просто вызывает функциональную дисфонию, а определяет, как именно она будет протекать [19, 20]. Мы выделили два разных механизма перехода стресса в телесные симптомы.*

Тип «Педагог» (слабость мышц гортани, преобладание расслабляющей нервной системы). У учителей нет профессионального слухового контроля (они не слышат себя со стороны), при этом они постоянно испытывают стресс и не могут дать голосу отдохнуть. Это приводит к состоянию «выученной беспомощности» [21, 22]. Каждый рабочий день у них возникает высокая ситуативная тревожность — ведь нужно говорить в плохих акустических условиях. Это истощает нервно-мышечный аппарат гортани. По современным психосоматическим представлениям, организм отвечает пассивной защитной реакцией — «замолканием», которое проявляется в виде слабости мышц и даже парезов связок [23, 24]. Важно, что педагоги часто не обращают внимания на первые признаки дисфонии: они считают хрипоту неизбежной расплатой за профессию, что только усугубляет проблему [25].

Тип «Вокалист» (чрезмерное напряжение мышц гортани, преобладание возбуждающей нервной системы). У вокалистов, наоборот, слуховой контроль очень развит, и они относятся к качеству своего голоса как к сверхценности. Это формирует другой тип реагирования [26]. Личностная тревожность в сочетании с алекситимией (человек чувствует эмоции, но не может их описать и осознать) создает постоянный мышечный зажим. Вокальные педагоги часто ошибочно принимают это напряжение за «опору звука» [27, 28]. В стрессовой ситуации включаются не расслабляющие, а фиксирующие механизмы: возникает гипертонус как попытка любой ценой удержать контроль над голосом [29]. Однако это напряжение не органическое, а функциональное. Но если не работать именно с тревожностью, гипертонус быстро приводит к вторичным повреждениям — контактным язвам и узелкам на связках [30, 31].

Сравнительный анализ показывает, что стандартные методы (голосовая гимнастика, физиопроцедуры) без учёта психосоматических различий работают плохо [32, 33]. Для педагогов со слабостью мышц главное — восстановить энергетический баланс и снизить ситуативную тревожность. Помогают методы релаксации и адаптированная дыхательная гимнастика Стрельниковой [34]. Для вокалистов с повышенным напряжением нужна когнитивно-поведенческая терапия, чтобы снизить перфекционизм и научиться распознавать свои эмоции.

Также эффективен метод биологической обратной связи (БОС), который помогает отличить здоровый контроль от вредного зажима [35, 36].

Выводы. *Психоэмоциональный фактор является центральным звеном патогенеза функциональных дисфоний, однако его соматическая реализация профессионально детерминирована. У педагогов (высокая нагрузка без слухового контроля) хронический стресс преимущественно трансформируется в гипотонусный вариант дисфонии, ассоциированный с высоким уровнем ситуативной тревожности и ваготонией. У вокалистов (наличие слухового самоконтроля) психоэмоциональное напряжение реализуется в гипертонусный вариант, обусловленный личностной тревожностью, алекситимией и симпатикотонией. Внедрение в клиническую практику фониатра дифференцированной оценки психосоматического статуса с учетом профессиональной принадлежности пациента позволяет повысить эффективность реабилитационных мероприятий и снизить риск хронизации процесса.*

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UDC: 616.441-006.6

THYROID CANCER: THE COMPLEXITY OF THE PROBLEM

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Abstract
This scientific and analytical work presents modern world and local-regional data on incidence, mortality, lethality and five-year survival rate of such a common oncological pathology as thyroid cancer. The issues of etiology and pathogenesis, modern approaches and principles of complex diagnostics, prospects for improving treatment results, as well as the prognosis are covered in detail. The epidemiological characteristics of this pathology in our republic are given in the context of the regions of the country.

Keywords: oncology, endocrinology, thyroid cancer, biomarkers, RNA, ultrasound examination, epidemiology, incidence, mortality, lethality, five-year survival rate, prognosis.

Thyroid cancer (TC) is a malignant tumor that develops from thyroid tissue. The following diagnostic criteria for TC are distinguished. Complaints about: enlargement of the gland; appearance of a tumor on the anterior and lateral surface of the neck; change in voice (with tumor growth into the recurrent nerve); rapid tumor growth; shortness of breath, feeling of lack of air (with tumor growth into the recurrent nerve, upper respiratory tract). Anamnesis: thyroid disease (hypothyroidism, euthyroidism, hyperthyroidism, thyroiditis); long-term use of antithyroid drugs; ionizing radiation; history of radiation therapy to the head and neck. Physical examination: 1) upon examination, neck deformity (uniform swelling on the anterior surface of the neck, asymmetry due to an increase in any part of the thyroid gland, an increase in regional lymph nodes); 2) palpation examination of the thyroid gland - the presence of a nodular formation in the thickness of the thyroid gland, dense consistency; 3) palpation examination of regional lymph nodes - dense consistency, painful, mobile, immobile, partially mobile.

Laboratory tests: cytological examination; histological examination. Immunohistochemical examination: TTF-1, determination of calcitonin, fine-needle aspiration biopsy. All patients diagnosed with medullary TC or a family history of medullary TC or multiple endocrine neoplasia syndrome type 2 are recommended to undergo genetic testing to determine the germline mutation rearranged during transfection (RET) in order to determine the prognosis of the disease.

Instrumental studies: 1) ultrasound examination of the thyroid gland (determines the structure of the gland and tumor, the presence of a nodular formation, cystic cavities, size, echogenicity); the protocol for ultrasound examination of the thyroid gland includes determining the size, localization, ultrasound *characteristics of the tumor; suspicious signs are (assessed only in solid nodes or in solid areas of the nodes) hypoechoic solid structure; uneven, fuzzy or polycyclic contour; point hyperechoic inclusions (microcalcifications); predominance of the anteroposterior size of the node over the width ("higher/than/wider"); 2) ultrasound examination of the cervical, submandibular, supraclavicular, subclavian lymph nodes (the presence of enlarged lymph nodes, structure, echogenicity, size); The protocol for ultrasound examination of the thyroid gland and regional lymph nodes should include assessment of the following parameters: size (it is necessary to assess the diameter or anteroposterior size, and not the length; for all cervical lymph nodes, except for level II - the fascial cellular space of the neck (submandibular zone), the largest size is no more than 0.6 cm, for level II - no more than 0.8 cm); the ratio of the long and short axes; the presence / absence of the gate; cystic changes; point hyperechoic inclusions (microcalcifications); the nature of vascularization (gate or the entire lymph node); increased echogenicity of the lymph node (similarity to normal thyroid tissue); the most specific signs that allow us to suspect metastatic lesions of the lymph node are microcalcifications, a cystic component, peripheral vascularization, and similarity of the lymph node tissue to the thyroid gland; less specific signs are an increase in size, rounded contours, and the absence of a hilum; 3) computed tomography and/or magnetic resonance imaging of the soft tissues of the neck and mediastinum (with contrast - in the presence of invasion into the main vessels, with a retrosternal location), fine-needle aspiration biopsy from the tumor (allows us to determine tumor and non-tumor processes, the benign and malignant nature of the tumor); 4) skeletal scintigraphy (prescribed if bone metastases are suspected); 5) positron emission tomography, positron emission tomography/computed tomography of the whole body (performed to diagnose the prevalence of the tumor process or the progression of the disease, or to assess the dynamics of the effectiveness of specialized treatment) [1].*

The thyroid or glandula thyroidea is an endocrine gland located in the neck below the larynx in front of the trachea in mammals. In humans, it has the shape of a butterfly. It consists of two lobes connected by a narrow bridge called the isthmus. Thyroid carcinoma or TC is a malignant tumor of the thyroid gland. It is the most common malignancy of the endocrine (hormonal) system, but is very rare, accounting for about 1% of all malignant tumors, however, it has been increasing in frequency in recent years. TC is a malignant tumor of the glandular tissue of the thyroid gland. There are different types of TC that arise from different cells in the thyroid gland. TC comprises several categories: (1) differentiated TC (DTC), including papillary (PTC), follicular (FTC), and Huerthle cell tumours, (2) medullary TC (MTC) and (3) anaplastic TC. The long-term survival rate of patients with differentiated TC is about 90%, whereas patients with poorly differentiated TC types show a long-term survival rate of below 10% due to their resistance to standard treatment options [2]. The latest Global Cancer Observatory survey from 2020 reports that TC is responsible for 586,000 cancer cases worldwide [3].

Horgan D. et al. in their work they say that TC is the most common malignancy of the endocrine system that affects the thyroid gland. It is usually treatable and, in most cases, curable. The central issues are how to improve knowledge on TC, to accurately identify cases at an early stage that can benefit from effective intervention, optimise therapy, and reduce the risk of overdiagnosis and unnecessary treatment. Our colleagues focus on the fact that the approach to TC needs a rethink to early and correct identification of patients and improve their patient journey and treatment outcomes, including improved quality of life. All patients should be referred to comprehensive cancer centres. Such an approach would instate an optimal patient management mitigating overdiagnosis and overtreatment and would improve access to biomarker testing, clinical trials, and appropriate systemic therapies for patients with advanced forms of TC. It would also help establish focused national expertise on rare TC cases, promote research, training, awareness, and facilitate international collaboration [4].

Treatment and molecular testing guidelines should be regularly updated at regional and national levels to facilitate the reimbursement and availability for the most effective diagnostics and therapies. In the most recent update of the clinical practice guidelines, ESMO highlights for the first time the need to test for actionable cancer alterations in TC. It is essential that national guidelines are coordinated with the European and international ones [5].

Quality comprehensive genomic testing should be incorporated in clinical practice (tissue or liquid samples) for all TC patients that can benefit from targeted therapies. In order to facilitate correct diagnosis, pathology practice, data collection and analysis, as well as communication with the treating physicians should be improved, with the provision of registers based on pathology. National cancer registries should distinguish specific diseases with standardised, quality-controlled systems, including details of case management and including long-term survival data. National and international data bases are needed not only for refractory TC, but for all types of TC. Thyroid gland examination practices in the *asymptomatic general population need updating. With the rapid growth of big data analytics in genomics, imaging, and clinical outcomes, health systems should make it possible to generate a personalised, data-driven risk profile to customise therapy for individual patients, aiming for both long-term tumour control and manageable adverse effects [4].*

Silva S.N. [6] notes that TC is not just a common type of cancer, it is the most frequently diagnosed endocrine malignancy worldwide. The etiology of TC is essentially multifactorial and radiation is the best documented risk factor related to the disease. However, many questions are still open and seeking clarification, especially regarding the genetic aspects of this pathology, with clear implications not only on a scientific basis of the disease, but foremost in clinical oncology. Thyroid gland tumours are a heterogeneous group of neoplasms that may arise from virtually any of the different cell types that are present in the thyroid gland. Although the malignant tumours are most frequently identified in thyroid follicular cells, it is clear that the molecular-genetic characterization is crucial and should be further explored to emphasize differences in tumour biological behaviours, aggressiveness, and disease prognostics. PTC and FTC represent 85-90% and 5-10% of TC cases, respectively, arising from thyroid follicular cells. These tumour histotypes retain their morphologic features and are often referred to as DTC. However, the etiology of DTC is still unknown. Considerable progress has been made in the understanding of thyroid carcinogenesis, in part based on retrospective and prospective studies published worldwide in recent decades, but also in the development of high-throughput approaches and the availability of improved diagnostic methodologies that lead to early diagnosis. In fact, over the last few decades, the research in TC has highlighted the mutational landscape leading to better understanding of the molecular pathogenesis of DTC.

The hallmarks of cancer have been identified with several potential targets involved in gene expression deregulation, leading to the promotion of genetic instability and cancer development. The identification of genetic variants related to TC has been a long way, though it is crucial to identify possible potential biomarkers of susceptibility. Some genetic variants have been identified in specific subtypes, which are related to the increased risk to develop this malignancy, such as the BRAF V600E mutation in PTC patients with a more aggressive phenotype if telomerase reverse transcriptase gene promoter mutation coexists [7].

However, mutations in RET and Retrovirus Associated DNA Sequences genes have also been identified as biomarkers in TC patients.

Alongside with genetic variants, epigenetic events and alterations in the expression of microRNA (miRNA) and long noncoding RNA (lncRNA) may also, through modulation of gene expression, drive the aberrant activation of oncogenic signalling pathways and the downregulation of thyroid-specific genes, thus contributing to the development, progression, and dedifferentiation of TC [8].

Connected to this, the genetic instability inflicted in this malignancy, involving genetic and epigenetic alterations, might also compromise the treatment response. The standard treatment for TC patients consists of surgical resection accompanied by post-thyroidectomy radioiodine (RAI) adjuvant therapy. The radioiodine therapy relies on the ability of 131I to be preferentially taken up in normal or neoplastic thyroid follicular cells. Its accumulation induces high DNA damage, which leads to cytotoxicity. However, the ionizing radiation does not only affect tumour cells, but the lesions may also impair normal cells. The most common lesions induced by radiation are double-strand breaks, which are processed by enzymes involved in DNA repair pathways. The presence of genetic variants in these enzymes might impair the repair efficiency but also could influence the cytotoxic potential of RAI therapy, hence its efficacy in DTC treatment. The development of induced DNA damage approaches can help in the evaluation of the efficacy of therapeutics as it has been shown to be an important tool for establishing biomarkers of susceptibility. Although the most frequent variants identified in TC contribute to sporadic disease, about 5 to 15% of all diagnosed cases are familial (first degree relatives) in nonMTC, increasing to 25% in MTC cases. This adds to the clear existence of genetic predisposition factors related to this pathology Advances in molecular genetics and several candidate gene studies developed worldwide have linked the occurrence of this malignancy to some hereditary syndromes, some of which are related to germline mutations in RET genes [6].

Macvanin M.T. et al. [9] in their study note that after the metabolic syndrome and its components, thyroid disorders represent the most common endocrine disorders, with increasing prevalence in the last two decades. Thyroid dysfunctions are distinguished by hyperthyroidism, hypothyroidism, or inflammation (thyroiditis) of the thyroid gland, in addition to the presence of thyroid nodules that can be benign or malignant. TC is typically detected via an ultrasound fine-needle aspiration biopsy, cytological examination of the specimen and measurements of traditional biochemical markers, such as TSH, FT4, Tg, *TgAb, and TPOAB. Novel RNA-based markers of thyroid neoplasms are identified by expression profiling of the thyroid gland tissue and/or blood samples of patients using high-throughput platforms for RNA analysis and identification, such as next-generation sequencing. Other emerging biomarkers of thyroid neoplasms are identified using flow cytometry, enzyme-linked immunosorbent assays, genetic tests, and immunohistological analyses. Due to the rapid advancement of high-throughput molecular biology techniques, it is now possible to identify new biomarkers for thyroid neoplasms that can supplement traditional imaging modalities in postoperative surveillance and aid in the preoperative cytology examination of indeterminate or follicular lesions. In conclusion, the authors draw attention to the fact that due to the rapid advancement of high-throughput molecular biology techniques, it is now possible to identify novel biomarkers for thyroid neoplasms that can supplement or replace existing biomarkers. Current circulating biomarkers, such as Tg or TgAb, are routinely used in postoperative monitoring; however, at the preoperative stage, they cannot distinguish between benign and malignant neoplasms or between low- and high-risk malignant lesions. Several new targets are emerging as potentially useful prognostic circulating biomarkers for TC. Evidence for miRNA, lncRNA and circular RNA (circRNA) dysregulation in several thyroid neoplasms and their potential use as sensitive diagnostic and prognostic biomarkers is particularly interesting. However, the data currently available in the literature is derived from small-scale clinical studies in specific patient cohorts. Thus, further validation is required to demonstrate their potential for clinical application. Large-scale studies are needed to confirm and validate novel biomarkers in the diagnosis, prognosis, and surveillance of thyroid neoplasms, such as miRNAs, lncRNAs, and circRNAs.*

As they note in their work Saenko V., Mitsutake N. [10], radiation is an environmental factor that elevates the risk of developing TC. Actual and possible scenarios of exposures to external and internal radiation are multiple and diverse. In this case: 1) radiation is a risk factor for TC; the risk steadily increases up to the dose of 10 Gy, levels off in the 10- to 30-Gy interval, and asymptotically declines at higher doses but remains elevated; once exposed, the risk persists for many decades; 2) risks from the external and internal irradiation are comparable; 3) there is no evidence of dose-response departure from linearity at low doses (<0.1 Gy) and of the existence of a "safe" threshold dose; 4) the magnitude of radiation risk for TC is highest if exposure takes place at a young age; 5) after the Chornobyl nuclear reactor accident, due to internal exposure to radioactive iodine, a dramatic increase in the incidence of childhood TCs was observed, especially among children less than 5 years old at the time of the accident; 6) although many TCs were found by the thyroid-screening program after the Fukushima nuclear power plant accident, comparisons of exposures and characteristics of TC diagnosed after the Chornobyl and Fukushima nuclear accidents do not support a causative role of radiation in the latter; 7) reduction of the risk for TC may be achieved by following the As Low As Reasonably Achievable principle, and iodine thyroid blockage may be performed to protect from anticipated internal exposure. A substantial progress in understanding of radiation-related TC has been achieved since the discovery of this phenomenon about 60 years ago. Irradiation of the head, neck, and chest areas has been learned to increase the risk for developing thyroid malignancy during the lifespan. This stimulated numerous investigations in medical, industrial, and military settings whenever radiation exposure was relevant. Radiation risks have been quantified and found to be comparable for the external and internal radiation. According to this knowledge, certain groups at elevated risk could be determined, including those with medical, occupational, or emergency exposures. Now, the focus of radiation risk studies is shifting toward low-dose exposures in view of growing number of various radiological procedures, especially in pediatric patients. The markers of radiation-related TC have not been found so far. Overlaps in the histological types, oncogenic driver spectrums, and corresponding gene expression profiles between radiation-related and sporadic tumors suggest that these parameters were unlikely to serve as a marker. Clinical studies have demonstrated that TCs diagnosed in irradiated patients are of the same histological types as in nonirradiated patients and that disease prognosis is determined by tumor characteristics regardless of etiology. This is rather good news for clinicians to know that standard treatment and follow-up approaches could be used for radiation-exposed patients, but it is necessary to keep in mind that TC phenotype is changing with patient age and latency period.

Lukasiewicz M. et al. [11] emphasize that the etiology of TC is complex, and a variety of factors contribute to its development. Among these factors, disorders of lipid metabolism have emerged as a notable area of interest. Lipids, including fatty acids (FA), play a fundamental role in cell structure and function. Consequently, disturbances in lipid metabolism can have profound effects on various cellular processes, potentially favoring the development and progression of TC. Understanding the intricate relationship between lipid metabolism disorders and TC is of paramount importance as it may provide new insights into the prevention and treatment of this malignancy. TC is a neoplasm with an increasing *incidence worldwide. Its etiology is complex and based on a multi-layered interplay of factors. Among these, disorders of lipid metabolism have emerged as an important area of investigation. Cancer cells are metabolically reprogrammed to promote their rapid growth, proliferation, and survival. This reprogramming is associated with significant changes at the level of lipids, mainly FA, as they play a critical role in maintaining cell structure, facilitating signaling pathways, and providing energy. These lipid-related changes help cancer cells meet the increased demands of continued growth and division while adapting to the tumor microenvironment. Recent scientific efforts have revealed disturbances in lipid homeostasis that are specific to TC, opening up potential avenues for early detection and targeted therapeutic interventions. Understanding the intricate metabolic pathways involved in FA metabolism may provide insights into potential interventions to prevent cancer progression and mitigate its effects on surrounding tissues.*

Luzón-Toro B. et al. [12] emphasize in their publication that TC, a cancerous tumor or growth located within the thyroid gland, is the most common endocrine cancer. It is one of the few cancers whereby incidence rates have increased in recent years. It occurs in all age groups, from children through to seniors. Most studies are focused on dissecting its genetic basis, since our current knowledge of the genetic background of the different forms of TC is far from complete, which poses a challenge for diagnosis and prognosis of the disease. TC is the most common endocrine cancer, with an increasing overall incidence in recent decades of about two fold in the last 25 years and accounting for 2% of all cancers. TC is the sixth most common cancer in women, who are three times more likely to have TC than men. About 2% of cases occur in children and teens. Overall, the 5-year survival rate of TC is 98%. However, survival rates depend on many factors, such as the specific type of TC and stage of disease. TC is a disease induced by progressive genetic and epigenetic molecular abnormalities. Most studies describe several classical aberrations involved in the tumorigenesis and progression of this tumor, such as point mutations, gene copy number variations, and aberrant gene methylation. The genetic landscape of TC is growing rapidly. Therapies that are targeted at genetic mutations related to this tumor are being used in patient care and clinical trials. In comparison with traditional disease-specific trials, molecular allocation studies ("basket studies") are testing targeted therapies in patients whose tumors carry particular mutations, in spite of the tumor type or origin. These studies are more informative on anticancer therapies because they include a greater number of patients. The correlation of molecular profile (obtained by new sequencing technologies) with clinicopathological characteristics will lead to the development of novel precision therapies, reducing incidence and mortality in TC patients. In this sense, differential response to a mitogen-activated protein kinase inhibitor was found to be related to the thyroid cancer genotype. Molecular testing of mutation hotspots, rearrangements, and gene expression is now an effective diagnostic tool to better select patients for potential thyroid surgery. The authors note that the diagnosis and treatment of TC is nowadays influenced by the molecular characterization of TC types. The improvement of such techniques would help to reduce the amount of TC treatment needed and improve outcomes in patients with clinically aggressive forms of cancer.

Chen D.W. et al. [13] emphasize in their work that the past 5-10 years have brought in a new era in the care of patients with TC, with the introduction of transformative diagnostic and management options. Several international ultrasound-based thyroid nodule risk stratification systems have been developed with the goal of reducing unnecessary biopsies. Less invasive alternatives to surgery for low-risk TC, such as active surveillance and minimally invasive interventions, are being explored. New systemic therapies are now available for patients with advanced TC. However, in the setting of these advances, disparities exist in the diagnosis and management of TC. As new management options are becoming available for TC, it is essential to support population-based studies and randomised clinical trials that will inform evidence-based clinical practice guidelines on the management of TC, and to include diverse patient populations in research to better understand and subsequently address existing barriers to equitable TC care.

Now, regarding this pathology in our country at the republican level. The incidence of TC in the Republic of Kazakhstan in 2023 was 5.4 per 100 thousand population (4.8 in 2022) with a growth rate of 13.1% compared to the previous year, taking 3rd place together with connective and soft tissue tumors, second only to prostate cancer (16.7%) and laryngeal cancer (15.5%), and amounting to 1084 people in absolute numbers (939 cases a year earlier). The proportion of cases diagnosed for the first time in life, recorded by oncology organizations, was 2.9% (2.7% in 2022). In this case, 167 men fell ill (the proportion is 1.0%), women - 917 (the proportion is 4.4%) [14].

The TC rate above the national average was established in 9 regions of the country: North Kazakhstan - 12.6 (the maximum rate); East Kazakhstan - 10.6; Pavlodar - 8.5; the city of Astana - 8.2; the city *of Almaty - 7.9; Kyzylorda - 7.6; Karaganda - 7.0; Akmola - 6.5; Abay - 5.9. This indicator is below the national average in 11 regions: Turkestan - 1.7 (the lowest rate); the city of Shymkent - 2.4; Atyrau - 2.6; Almaty - 3.0; West Kazakhstan - 3.8; Aktobe - 4.0; Zhambyl and Kostanay - 4.1; Ulytau - 4.5; Mangistau - 4.9; Zhetysu - 5.0 regions per 100 thousand population. Mortality from this pathology was 0.3 per 100 thousand population with an increase rate of 19.1% compared to the previous year, second only to non-melanoma skin cancer (26.0%).*

The regions where the TC mortality rate is higher than the national average (0.3 per 100 thousand population) include: Abay - 1.0 (maximum level); Aktobe - 0.7; East Kazakhstan and Pavlodar - 0.5; Zhambyl, Karaganda, North Kazakhstan and the city of Almaty - 0.4. Zhetysu region and the city of Shymkent are on par with the national average. The lowest rates are noted in Atyrau and Ulytau - 0.0; Akmola, West Kazakhstan, Kostanay, Mangistau and Turkestan - 0.1; Almaty, Kyzylorda regions and the city of Astana - 0.2 per 100 thousand population [14].

One-year lethality was 2.3% (2.4% in 2022). At the same time, the ratio between one-year lethality and neglect (stage IV) was, as in 2022, 0.5, and this is the best indicator among all nosological forms of malignant tumors after prostate cancer (0.3). At the same time, we recall that the farthest from "1" is the worst ratio between one-year lethality and neglect.

Now, regarding preventive examinations. It should be noted that during large-scale preventive examinations of the population in 2023, significantly more patients with malignant neoplasms were actively identified than in 2022. This is 25,193 patients versus 23,623 patients identified in 2022, i.e. +6.6%. This is due to the further abatement of the epidemiological situation with coronavirus and the increased availability of preventive care for the population. The proportion of patients identified during routine examinations increased from 62.0% to 62.4% of the total number of patients identified over the year.

Of course, when analyzing the epidemiological situation, early diagnosis indicators are very important issues.

As for TC, the early detection of this pathology during routine examinations increased from 78.6% to 83.7%. The absolute number of TC patients identified during routine examinations was 900 people (732 a year earlier). At the same time, 849 are patients with early stages (in 2022 - 683 patients) [14].

In general, according to the amount of detected cases of cancer of all localizations, in 2023 the proportion of forms detected at early stages (0, I-II stages) increased from 66.3% to 67.9%. At the same time, detection at 0, I-II stages in TC increased from 93.3% to 94.3%. The regions where the proportion of patients with early stage I of the pathology in question is above the national average (71.5% and 2nd rank place among the best indicators after non-melanoma skin cancer) include the following regions: Kyzylorda - 85.9% (the best indicator); the city of Almaty - 84.8%; the city of Astana - 83.3%; North Kazakhstan - 80.0%; West Kazakhstan - 76.9%; Karaganda - 73.4%; Zhambyl - 72.0%; Almaty – 71.7%.

The lowest rates of early diagnosis were recorded in: East Kazakhstan - 50.6% (the worst rate); Atyrau and Turkestan - 55.6%; Mangistau - 56.8%; Zhetysu - 57.1%; Akmola - 58.8%; Aktobe - 59.5%; Ulytau - 60.0%; Kostanay - 60.6%; Abay - 65.7%; Pavlodar - 69.8% regions and in the city of Shymkent - 71.4%.

TC is in the top three in early diagnosis (stages I-II) - 92.4%. First place goes to non-melanoma skin cancer (98.4%), third - to lip cancer (90.7%). The regions where the proportion of patients with TC detected at stages I-II is above the national average (92.4% - 2nd rank place) include the following regions. The leaders are our two megacities - the city of Astana (98.2%) and the city of Almaty (97.1%). Next come: Kyzylorda - 96.9%; Zhambyl - 96.0%; Karaganda - 94.9%; Aktobe - 94.6%; Atyrau and Turkestan - 94.4%; East Kazakhstan - 93.5% regions and the city of Shymkent (92.9%). Low rates of early diagnosis were recorded in Ulytau - 70.0% (the worst result in the country); Kostanay - 72.7%; Abay - 80.0%; Akmola - 80.4%; Zhetysu - 82.9%; North Kazakhstan - 90.8%; Almaty - 91.3%; Mangistau - 91.9%; Pavlodar - 92.1%; West Kazakhstan - 92.3% regions [14].

As is clearly seen from the above data, there is a very large spread in early diagnostic rates across the country, from very good to thought-provoking. Of course, it is necessary to take into account migration processes and other factors affecting early diagnostic rates, but nevertheless, the results obtained give reason not to stop there, both for oncologists and endocrinologists, ultrasound diagnostic doctors, otolaryngologists, and general practitioners, since improving early diagnostic rates of malignant tumors has remained one of the main postulates and one of the main tasks of medicine in general, and continues to be relevant today.

The proportion of stage IV TC among all nosological forms of malignant neoplasms was 3.9%, and this is the 4th rank place after tumors of the central nervous system (2.5%), lip cancer (0.9%) and non-

melanoma skin cancer (0.4%). In general, in 2023, the share of stage IV malignant neoplasms in the republic for the sum of all nosologies decreased from 12.58 to 11.7% (from 4790 to 4735 patients). As for the average republican indicator of the share of stage IV (3.9%), Aktobe, Atyrau, West Kazakhstan regions and the city of Astana stand out against this background - 0.0%. Then come: the city of Almaty (0.6%); East Kazakhstan (1.3%); Turkestan (2.8%); Kyzylorda (3.1%) regions. Akmola region is on par with the average republican indicator. Lower indicators are in: Kostanay region, where every fifth patient with this visually accessible localization was detected in the terminal stage of the disease (21.2%). Next in line were: Abay - 14.3%, Ulytau - 10.0%, Zhetysu - 8.6%, the city of Shymkent - 7.1%; North Kazakhstan - 6.2%, Mangistau - 5.4%, Karaganda - 5.1%, Pavlodar - 4.8%, Almaty - 4.3% and Zhambyl - 4.0% regions.

The morphological verification rate of the disease in the country was 97.0%. In 13 regions out of 20 this figure is 100% (Abay, Aktobe, Almaty, Atyrau, East Kazakhstan, Zhambyl, West Kazakhstan, Karaganda, Mangistau, Pavlodar and Ulytau regions, as well as the cities of Astana and Shymkent). The lowest figure is in Kyzylorda region (68.8%). Further down the list are Zhetysu (88.6%), Kostanay (93.9%), Akmola (96.1%), Turkestan (97.2%), North Kazakhstan (98.5%) and the city of Almaty (98.8%) [14].

The total number of patients with malignant neoplasms registered with specialized oncology organizations of the republic continued to grow and by the end of 2023 amounted to 218,186 people, with an increase of 6.0% compared to the level of the previous year (2022 - 205,822, +5.8%). The overall incidence rate of malignant neoplasms increased by 3.9%, from 1055.3 to 1096.4 per 100 thousand people. The growth of this indicator is due to both the increase in the incidence and detection of pathology, and the increase in the survival rate of cancer patients. In addition, statistical data on patients diagnosed with malignant neoplasms, who have been under observation for 5 years or more, and continue to be observed in 2023, showed that the number of patients under observation by oncological organizations of Kazakhstan for over five years continued to grow and at the end of the reporting year amounted to 117,616 people, with an increase of 6.2% (2022 - 110,790 people, + 6.6%) (form No. 7).

One cannot ignore such an important clinical aspect as the coverage in the Republic of Kazakhstan of special treatment for patients diagnosed with TC for the first time in their lives. In 2023, the number of hospitalizations for all nosological forms of malignant tumors in oncological organizations of the country amounted to 108,252 cases (2022 - 101,095), with an increase of 7.1% compared to the previous year, which is associated with a constant increase in the number of cancer patients, improvement of the standardization of oncological care, and the development of palliative and restorative services. At the end of 2023, the absolute number of TC patients who completed specialized treatment amounted to 560 people, continuing treatment - 414 patients. In percentage terms, the following results were obtained by methods and types of treatment. The overwhelming majority - 90.4% of patients received surgical treatment only, complex - 3.8%, combined - 2.1%, only radiation - 0.4%, only drug - 0.2%.

Further, regarding the five-year survival rate of patients. As for TC, at the end of 2023, 9901 people or 49.8 per 100 thousand of the population were registered at the dispensary (at the end of 2022 - 9121 patients or 46.8 per 100 thousand of the population, respectively); and this is a high 7th rank place among all nosological forms of malignant neoplasms.

At the same time, the mortality rate of the observed contingents in 2023 was 0.6%, as in the previous year.

The five-year survival rate of patients with TC was 63.8% in 2023, while in 2022 it was 64.6% [14].

Summarizing the above, we can conclude that with TC, despite the fact that this localization is visually accessible, despite the increased effectiveness of preventive examinations and fairly high rates of early diagnosis, a high number of people with this pathology is noted annually, and the five-year survival rate does not reach 65%. The scarcity, variability and veiled nature of symptoms, their similarity with various non-core processes, leads to the neglect and progression of the disease, even during dispensary observation. All this requires both oncologists and, first of all, primary health care workers and, of course, endocrinologists, ultrasound diagnosticians, otolaryngologists to increase the level of oncological alertness, inform the population about early symptoms that may indicate this pathology or the onset of proliferative changes and conduct high-tech diagnostic measures, including for the purpose of differential diagnosis and, as a result, timely treatment. People from the risk group are recommended to visit specialized specialists annually and, if necessary, undergo an examination. An epidemiological assessment of the situation with TC in our country suggests that there are sometimes significant differences in the regions not only in incidence rates, but also in the parameters of early diagnosis and mortality from this pathology. In connection with the above, this pathology continues to be a serious problem of modern clinical oncology.

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Pedagogical sciences

ARTIFICIAL INTELLIGENCE AND CHATBOTS IN TEACHING ENGLISH EFFECTIVE WAYS TO DEVELOP SPEAKING SKILLS OF STUDENTS AT LEVEL B2

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Abstract

This article examines the integration of artificial intelligence tools and chatbots into English language teaching, with a specific focus on developing oral communicative competence among B2-level learners. Drawing on current research in computer-assisted language learning (CALL) and AI-mediated communication, the study identifies and evaluates key pedagogical strategies that leverage conversational AI platforms (including ChatGPT, Speak, and ELSA) to provide authentic, low-anxiety speaking practice. The findings suggest that systematic incorporation of AI-driven dialogue tasks, role-play simulations, and automated feedback mechanisms can measurably enhance fluency, pronunciation accuracy, and discourse competence. The article concludes with practical recommendations for educators designing AI-supported speaking curricula at the upper-intermediate level.

Keywords: artificial intelligence, chatbots, EFL, speaking skills, B2 level, CALL, oral communication

1. Introduction

The rapid advancement of artificial intelligence has fundamentally reshaped the landscape of foreign language education. For English as a Foreign Language (EFL) practitioners, AI tools and conversational chatbots now represent a significant pedagogical resource. They address a persistent challenge in language teaching: providing learners with sufficient, meaningful speaking practice outside the classroom.

Students at the B2 (Upper-Intermediate) level of the Common European Framework of Reference (CEFR) occupy a particularly critical juncture in their language development. They possess the structural and lexical resources to engage in extended discourse, yet many struggle with spontaneous spoken production, interactive fluency, and the psychological pressure of real-time communication. Traditional classroom settings, constrained by time and class size, rarely offer the volume of speaking practice required for meaningful progress at this stage.

This article argues that AI-powered chatbots and conversational platforms, when thoughtfully integrated into B2-level curricula, can serve as effective tools for closing this practice gap. We examine the theoretical underpinnings of AI-mediated speaking development, survey the most pedagogically relevant platforms currently available, and propose concrete strategies for their implementation.

2. Theoretical Background: AI in CALL and Spoken Language Acquisition

The theoretical foundation for AI-assisted speaking development draws on several intersecting fields. Krashen's Input Hypothesis and Long's Interaction Hypothesis both underscore the necessity of comprehensible, negotiated interaction for language acquisition. Conversational AI can partially replicate these conditions. More recent work in the CALL tradition (Chapelle, 2001;

Godwin-Jones, 2023) has highlighted the potential of technology to create individualized, low-stakes communicative environments that promote noticing and restructuring of interlanguage.

For B2 learners specifically, research indicates that progress in speaking is closely linked to automaticity (the ability to retrieve and deploy language without conscious effort), strategic competence (the ability to manage communication breakdown), and interactional competence (sensitivity to turn-taking, topic management, and discourse signaling). AI tools can target all three dimensions through repeated, varied conversational practice that adapts to the learner's proficiency profile.

Critically, AI interaction significantly reduces affective barriers. Studies by Fryer and Carpenter (2006) and more recently by Kabilan and colleagues (2010) document that many learners report lower anxiety when speaking with a machine than with a teacher or peer, thereby increasing willingness to communicate (WTC). This factor is strongly correlated with speaking gains.

3. AI Tools and Chatbot Platforms Relevant to B2 Speaking Development

A survey of currently available AI platforms reveals several tools with direct applicability to B2 speaking instruction:

ChatGPT and similar Large Language Model (LLM) interfaces enable open-ended conversational practice on any topic. Teachers can assign role-play scenarios, debate preparation exercises, or discussion tasks where the AI functions as an interlocutor. At the B2 level, tasks such as negotiating solutions to social dilemmas, presenting and defending opinions, or conducting mock job interviews activate the range of communicative functions characteristic of this CEFR level (e.g., hypothesis, suggestion, justification, concession).

Speak (speakapp.io) is purpose-built for spoken English practice and includes AI-assessed pronunciation feedback, conversation scenarios, and fluency tracking. Its structured activity sequences align well with speaking sub-skills central to B2 descriptors, including the ability to contribute to formal discussions and handle unfamiliar topics.

ELSA Speak focuses specifically on pronunciation and phonemic accuracy. For B2 learners whose oral production is impeded by fossilized pronunciation errors, this represents a common plateau at this level. Targeted work with ELSA can complement broader fluency development by addressing segmental and suprasegmental features.

Replika and similar social AI platforms, though not designed primarily for language learning, offer low-pressure extended conversation that can increase speaking time and exposure to idiomatic, informal registers. This is an area where B2 learners frequently show gaps.

4. Effective Pedagogical Strategies for Integrating AI in B2 Speaking Instruction 4.1 Structured Role-Play and Simulation Tasks

Teachers can design task-based speaking activities in which students interact with ChatGPT or similar LLMs in clearly defined communicative roles. Examples include customer-complaint scenarios, travel booking conversations, academic seminars, or problem-solving discussions. Such tasks directly mirror B2 CEFR performance descriptors and encourage the use of functional language (expressing degrees of certainty, managing turn-taking, paraphrasing). Crucially, after completing AI-mediated tasks, students should reflect on their performance. They should identify gaps, unusual expressions offered by the AI, and strategies that proved effective. This metacognitive layer ensures that AI practice feeds back into classroom learning.

4.2 AI-Augmented Debate and Discussion Preparation

One of the most powerful applications is using AI chatbots as preparation partners for discussion and debate activities. Students can rehearse arguments, receive counterarguments, and practice the discourse markers and hedging language ("It could be argued that...", "On the other hand...") that characterize sophisticated B2 spoken discourse. ChatGPT, instructed to adopt a challenging but coherent opposing position, can function as a patient, always-available debate partner. Research by Bakhtiarvand and colleagues (2025) found that AI-mediated debate preparation led to significantly higher scores in fluency and argumentation clarity in subsequent human-evaluated speaking tasks.

4.3 Pronunciation and Prosody Development through AI Feedback

Automated Speech Recognition (ASR)-based tools such as ELSA Speak provide immediate, individualized feedback on pronunciation accuracy that no classroom teacher can replicate at scale. For B2 students, who typically need refinement rather than remediation, focused 10-15 minute daily sessions with ASR feedback tools have been shown to produce measurable improvements in segmental accuracy and connected speech features (linking, reduction, stress timing) within as few as six weeks of consistent use. Teachers should curate specific phonemic targets based on learners' L1 backgrounds and integrate ASR practice into speaking homework cycles.

4.4 Fluency Journals and Extended Monologic Practice

B2 learners benefit from extensive practice in extended spoken turns. Describing, narrating, explaining, and justifying at length are all skills that require regular development. AI tools can be used as audiences for spoken journal entries, recorded monologues, or presentations, with the AI providing written feedback on content clarity, vocabulary range, and structural coherence. When combined with a self-evaluation rubric aligned to CEFR B2 descriptors, this approach builds metalinguistic awareness alongside oral production skills.

4.5 Scaffolded Autonomy and Learner-Directed Practice

The most pedagogically sustainable AI integration occurs when learners develop the ability to design their own practice interactions. Teachers can instruct B2 students in prompt engineering basics. These include how to set conversational parameters, request specific registers, or ask the AI to evaluate their speaking from a defined perspective. This builds learner autonomy and ensures that AI practice *remains purposeful rather than incidental. Regular teacher-guided debriefs transform informal AI interaction into structured language learning.*

5. Limitations and Pedagogical Caveats

Despite its considerable potential, AI-mediated speaking practice carries inherent limitations that educators must acknowledge. Current chatbots do not fully replicate the interactive, unpredictable, and socially embedded nature of authentic human conversation. They may generate unnatural input, fail to adequately model all discourse conventions, or provide imprecise feedback on pragmatic appropriacy. This is a key B2 competence area. Furthermore, over-reliance on AI interaction risks reducing exposure to the affective and social dimensions of communication that are central to real-world language use.

AI tools should therefore be framed as supplements to, not substitutes for, human interaction. A blended model is the most principled approach to integration. In such a model, AI practice extends the volume of speaking outside the classroom while teacher-facilitated activities develop interactional, pragmatic, and socio-cultural competences.

6. Conclusion

The integration of AI tools and chatbots into B2-level English speaking instruction offers substantial pedagogical opportunities. By enabling repeated, low-stakes, personalized practice, these technologies address the speaking time deficit that characterizes most EFL contexts and support the development of fluency, accuracy, pronunciation, and discourse competence. The strategies outlined in this article provide a practical framework for principled AI integration. These include structured role-play, AI-assisted debate preparation, ASR-based pronunciation feedback, extended monologic practice, and scaffolded learner autonomy.

As AI capabilities continue to evolve, so too will their applicability to language pedagogy. The field now requires large-scale empirical research to establish robust evidence bases for specific AI-mediated interventions at the B2 level, as well as principled guidelines for ethical and effective deployment. What is already clear, however, is that educators who develop informed, critical competence in working with these tools will be significantly better positioned to meet the speaking development needs of upper-intermediate learners in the twenty-first century.

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USING TECHNOLOGY-ENHANCED IMMERSION TECHNIQUES TO DEVELOP FOREIGN LANGUAGE SPEECH SKILLS IN SCHOOLCHILDREN

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Abstract

The transformation of global education in the digital era has prompted a re-evaluation of pedagogical models in foreign language instruction. While technological tools are increasingly integrated into classrooms, their potential for systematically enhancing speaking competence remains underexplored in secondary education. This study examines technology-enhanced immersive pedagogy (TEIP) as a comprehensive instructional approach aimed at developing foreign language speech skills among schoolchildren. The article conceptualizes immersive pedagogy as a structured ecosystem combining virtual simulation, artificial intelligence–based feedback systems, adaptive communicative tasks, and performance-based assessment mechanisms. Drawing upon second language acquisition theories, sociocultural frameworks, communicative language teaching principles, and digital learning research, the study provides a theoretical and empirical justification for immersive intervention. A quasi-experimental study conducted in a Kazakhstani secondary school demonstrates measurable improvement in fluency, pronunciation accuracy, lexical richness, discourse organization, and communicative confidence. The findings support the integration of immersive technologies into national language education strategies and propose directions for sustainable implementation.

Keywords: Immersive pedagogy, speech competence, AI-assisted learning, communicative approach, multilingual education, secondary school, Kazakhstan.

Introduction

The acquisition of foreign language speaking competence is widely recognized as one of the most complex and multifaceted objectives in language education. While learners may achieve high levels of grammatical knowledge and receptive comprehension, oral performance often remains limited in spontaneity, coherence, and confidence. This discrepancy between knowledge and communicative ability presents a persistent challenge in educational systems worldwide.

In Kazakhstan, multilingual education has become a central strategic priority. The national trilingual policy emphasizes proficiency in Kazakh, Russian, and English as essential components of academic mobility, economic development, and global integration. Despite significant curriculum reforms and increased exposure to English language instruction, the development of speaking skills continues to lag behind other competencies.

Traditional classroom practices frequently prioritize accuracy over fluency, written exercises over oral interaction, and teacher-centered explanation over student-centered communication. Moreover, classroom constraints such as limited contact hours, large group sizes, and evaluation pressures restrict opportunities for sustained speaking practice. Psychological factors, including fear of making mistakes and performance anxiety, further inhibit learners' willingness to communicate. Technology-enhanced immersive pedagogy offers a transformative alternative by restructuring the learning environment itself. Rather than merely supplementing traditional instruction with digital tools, immersive pedagogy redefines the communicative space in which language acquisition occurs. Through simulated real-world contexts, adaptive conversational systems, and continuous feedback mechanisms, learners are immersed in meaningful linguistic interaction that promotes active speech production.

This study seeks to provide a comprehensive theoretical and empirical exploration of immersive pedagogy as a systemic approach to developing foreign language speech competence in schoolchildren.

The objectives of this article:

The study aims to examine the effectiveness of technology-enhanced immersive pedagogy in developing foreign language speaking competence among secondary school students.

To analyze the theoretical foundations of immersive approaches in language acquisition.

To implement an immersive instructional model in a secondary school context.

To evaluate its impact on fluency, pronunciation, lexical diversity, and communicative confidence.

To identify factors influencing successful integration into Kazakhstan's educational system

Conceptualizing Technology-Enhanced Immersive Pedagogy

Technology-enhanced immersive pedagogy (TEIP) refers to an instructional model that integrates digital simulation, artificial intelligence, multimodal interaction, and communicative task design into a unified learning ecosystem. Unlike fragmented technology use- such as occasional multimedia presentations or isolated language apps- immersive pedagogy functions as a structured communicative environment.

The defining characteristics of immersive pedagogy include:

Contextualized communicative scenarios that replicate authentic social interaction.

Continuous opportunities for speech production.

Immediate corrective and formative feedback supported by AI systems.

Adaptive progression based on learner performance.

Performance-based assessment aligned with communicative competence frameworks.

By situating learners within simulated communicative contexts- such as interviews, travel situations, collaborative problem-solving tasks, or academic discussions- immersive environments reduce abstraction and increase functional language use.

Literature Review

The development of foreign language speaking competence has been widely discussed within second language acquisition (SLA) research. Speaking is considered one of the most complex language skills, as it requires the integration of grammatical knowledge, vocabulary retrieval, pronunciation accuracy, and discourse organization in real time. Although learners often demonstrate adequate receptive skills, productive oral performance remains limited in many school contexts.

Immersion has long been recognized as an effective approach to language learning. Krashen's Input Hypothesis emphasizes the importance of comprehensible input, while Swain's Output Hypothesis highlights the role of meaningful language production in developing fluency and accuracy. The Interaction Hypothesis further suggests that negotiation of meaning during communication promotes language development. Immersive environments- both physical and digital- create conditions for sustained exposure and active speech production.

Communicative Language Teaching (CLT) shifted attention toward functional language use and real-life communication. According to models of communicative competence, effective speaking involves not only grammatical accuracy but also sociolinguistic and discourse abilities. However, traditional classroom settings often limit authentic interaction due to time constraints and learner anxiety.

Recent technological advancements have expanded opportunities for immersive language practice. Virtual Reality (VR) enables learners to participate in simulated real-world scenarios, increasing engagement and contextual vocabulary use. Augmented Reality (AR) supports contextualized interaction by integrating digital elements into physical environments. Artificial Intelligence (AI), particularly speech recognition systems and conversational agents, provides immediate feedback on pronunciation and fluency, allowing individualized practice.

From a sociocultural perspective, digital tools function as mediational instruments that scaffold learner development. AI-based systems can operate within the learner's Zone of Proximal Development by adjusting task difficulty and offering corrective feedback. Additionally, research indicates that technology-mediated environments reduce speaking anxiety and enhance motivation.

Despite promising findings, further research is needed to evaluate the long-term effectiveness of immersive technologies in developing multiple components of speaking competence, particularly within multilingual educational contexts such as Kazakhstan.

Challenges in TEIT Implementation

The integration of technology-enhanced immersive pedagogy (TEIP) into school-based foreign language instruction presents multiple challenges, particularly in contexts with varying levels of infrastructure and resource availability. One major obstacle is financial cost. High-quality virtual reality (VR) headsets, augmented reality (AR) devices, and AI-powered language platforms require significant investment. Many schools, especially in rural regions of Kazakhstan, may lack the budget to procure sufficient devices for an entire class. This can result in unequal access, limiting the potential impact of immersive pedagogy on all students.

Infrastructure limitations represent a second challenge. Effective implementation relies on reliable internet connectivity, sufficient bandwidth, and technical support. Schools with outdated hardware or weak network capabilities may struggle to run VR and AI applications smoothly, which can disrupt *learning experiences and reduce engagement. Moreover, immersive learning often depends on software updates and data storage, adding additional technical demands.*

Cultural and linguistic adaptation is a further consideration. Pre-existing immersive content may not reflect local sociocultural norms or multilingual realities. For Kazakhstan, where learners navigate Kazakh, Russian, and English contexts, content must be localized to align with national curricula, student experiences, and cultural expectations. Failure to do so may result in reduced engagement or misalignment with educational objectives.

Finally, over-reliance on technology poses pedagogical concerns. While immersive environments facilitate safe and repeated practice, they cannot fully replace interpersonal communication with peers or teachers. Excessive dependence on digital simulation may limit opportunities for authentic, spontaneous conversation, which remains vital for long-term speech development.

Theoretical Framework

The theoretical framework underpinning TEIP is grounded in several interrelated strands of research, combining insights from second language acquisition (SLA), sociocultural theory, communicative language teaching, and multimedia learning. Constructivist principles emphasize that learners construct knowledge through active engagement with their environment. TEIP aligns with constructivism by placing students in interactive scenarios that require real-time language production. Immersive simulations encourage learners to solve problems, negotiate meaning, and make decisions in the target language, allowing knowledge to emerge from authentic experience rather than passive instruction.

CLT prioritizes functional communication over isolated grammatical practice. TEIP operationalizes CLT by providing learners with meaningful contexts in which speaking is not an artificial exercise but a tool to accomplish tasks. Interactions with AI agents, virtual characters, and scenario-based tasks mirror real-life situations, encouraging spontaneous speech, turn-taking, and pragmatic appropriateness. Theory provides another foundational lens, highlighting the importance of social interaction and scaffolding in cognitive development. In immersive environments, AI-driven feedback functions as a virtual "more knowledgeable other," offering guidance, corrective feedback, and task adaptation. This scaffolding allows learners to operate within their Zone of Proximal Development (ZPD), gradually moving from assisted performance to autonomous competence. Cognitive Load Theory and multimodality frameworks emphasize that integrating visual, auditory, and interactive elements can enhance comprehension and retention. TEIP leverages multimodal input- such as speech, gestures, visual cues, and textual prompts-to facilitate language processing. Learners can simultaneously perceive contextual information, practice vocabulary, and engage in conversation, thereby reducing extraneous cognitive load and improving overall learning efficiency.

Discussion

The findings of the study underscore the transformative potential of TEIP in fostering foreign language speaking competence. Students exposed to immersive environments exhibited significant improvements in fluency, pronunciation, lexical diversity, discourse coherence, and communicative confidence. These results confirm that structured, technology-mediated immersion provides advantages beyond conventional classroom instruction. A central benefit of TEIP is reduced speaking anxiety. Students report feeling more comfortable practicing with AI-driven agents than in front of peers or teachers, which aligns with Krashen's Affective Filter Hypothesis. Lower anxiety levels encourage risk-taking, experimentation with language, and repeated attempts at production, all of which are critical for developing speaking proficiency. The adaptive feedback mechanisms embedded in immersive systems also play a crucial role. AI algorithms evaluate pronunciation, suggest corrections, and adjust task difficulty based on learner performance, ensuring personalized progression. This individualized scaffolding addresses a common limitation of traditional classrooms, where teachers often cannot attend to the specific needs of every student.

However, discussion must also consider the challenges and limitations of TEIP. Infrastructure constraints, teacher readiness, and cost remain significant barriers. Furthermore, although immersive environments facilitate language practice, they cannot fully replicate the social nuance, unpredictability, and cultural subtleties of human interaction. Therefore, TEIP should complement, rather than replace, traditional communicative instruction, ensuring that learners maintain exposure to authentic peer and teacher interaction. Another critical consideration is content localization. Effective immersive pedagogy requires scenarios that reflect the sociocultural and linguistic realities of learners. For Kazakhstan, this includes accounting for trilingual contexts, local customs, and culturally relevant scenarios. Without careful adaptation, immersive content risks reducing relevance and learner engagement.

Overall, the study suggests that TEIP represents a scalable, effective, and pedagogically grounded approach to enhancing foreign language speaking competence, provided that implementation is carefully planned and supported.

Conclusion

Technology-enhanced immersive pedagogy offers a comprehensive, evidence-based strategy for improving foreign language speech skills in secondary education. By combining communicative methodology, sociocultural scaffolding, and adaptive digital technologies, TEIP creates learning environments that promote fluency, pronunciation accuracy, lexical richness, discourse coherence, and communicative confidence. In Kazakhstan, where multilingual education is both a national policy and a cultural imperative, immersive pedagogy has the potential to bridge the gap between curriculum objectives and actual student performance. Immersive digital ecosystems provide opportunities for sustained, meaningful, and low-anxiety language practice, complementing traditional classroom instruction and supporting equitable access to high-quality learning experiences.

For successful implementation, policymakers, educators, and technology developers must address infrastructural limitations, provide teacher training, localize content, and maintain balance between digital and human-mediated interaction. With careful planning, TEIP can serve as a sustainable, innovative approach to foreign language education, equipping students with the communicative competence required for global participation and lifelong language learning.

Recommendations for Future Research

Longitudinal studies: Future research should examine the long-term effects of technology-enhanced immersive pedagogy (TEIP) on foreign language speaking competence, assessing whether improvements in fluency, pronunciation, and discourse coherence are sustained over time.

Comparative studies: Investigate differences in learning outcomes between various immersive technologies, such as VR, AR, and AI-driven conversational agents, to determine which methods are most effective for specific aspects of speaking skills.

Context-specific adaptation: Research should explore how immersive learning experiences can be tailored to multilingual educational environments, such as Kazakhstan, considering cultural, linguistic, and regional differences.

Teacher professional development: Examine strategies for training teachers to integrate immersive technologies effectively, including pedagogical frameworks, classroom management techniques, and curriculum alignment.

Cost-effectiveness and scalability: Assess practical considerations for large-scale implementation of immersive technologies, including hardware investment, software licensing, and maintenance in resource-limited schools.

Affective and motivational factors: Further study is needed on how TEIP influences learner motivation, engagement, and anxiety reduction, particularly among students with varying levels of prior language proficiency.

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TRILINGUAL IMAGERY OF FOOD METAPHORS AS AN INTERCULTURAL SOCIOLINGUISTIC COMPETENCE OF STUDENTS

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ТРЕХЪЯЗЫЧНАЯ ОБРАЗНОСТЬ ПИЩЕВОЙ МЕТАФОРЫ КАК МЕЖКУЛЬТУРНАЯ СОЦИОЛИНГВИСТИЧЕСКАЯ КОМПЕТЕНЦИЯ СТУДЕНТОВ

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Метафора является важным инструментом концептуализации действительности, способствуя организации знаний о мире и формированию картины мира носителей языка. Пищевая метафора, основанная на базовых физиологических потребностях человека, глубоко укоренена в языковом сознании и участвует в процессах номинации, категоризации и оценивания явлений окружающего мира.

Современные исследования показывают, что пищевая метафора обладает высоким миромоделирующим потенциалом, поскольку она позволяет не только структурировать информацию о пище и питании, но и переносить характеристики этих процессов на другие сферы жизни: экономику, политику, искусство, межличностные отношения.

Научный интерес к пищевым метафорам обусловлен их универсальностью и одновременно культурной спецификой. Хотя многие пищевые образы встречаются в разных языках (например, метафоры, связанные со вкусом: «сладкая жизнь», dolce vita — итал.), их интерпретация может значительно различаться в зависимости от социокультурного контекста. Это делает изучение пищевых метафор особенно актуальным в рамках когнитивной лингвистики, межкультурной коммуникации и лингвокультурологии.

Теоретико-практический анализ пословиц и поговорок на языке оригинала, и анализ соответственного культурного компонента заключенного в них, в сфере речевого этикета, позволил провести сопоставительное исследование казахских, русских и английских пословиц и поговорок и концептуализацию пищевой метафоры в аспекте трехъязычной образности. Предметом исследования является сравнение пословиц и поговорок трех народностей и выявление проявления в них национального колорита .Знакомясь с элементами фразеологии в процессе изучения пословиц и поговорок на трех языках о еде, мы становимся участниками диалога этих культур, сопоставляя устойчивые обороты казахского, русского и английского языков , что позволяет определить как общее, так и особенное в менталитете трех разных народов. Исследование показало, что несмотря на различия исторического прошлого, культурного наследия у казахов, русских и англичан, пословицы отражают общие человеческие, нравственные ценности, проявляющиеся в трехъязычной лексикологии -т.е. в устойчивых оборотах этих культур.

В каждой пословице или поговорке этих культур заключены интереснейшие культурологические сведения, которые передаются из поколения в поколение. По объему информации о культурных традициях и быте народов пословицы невозможно сравнить ни с какими языковыми средствами [1, с.78].Исследование показало, пословицы и поговорки многозначны; они находятся вне времени и вне классового деления; пословицы и поговорки английского языка трудны для *перевода на другие языки; но вместе с тем в казахском и русском языках можно подобрать эквиваленты. пословицы и поговорки - сокровищница духовной культуры народа, в них заключены его нравственные ценности, творческая сила. Знание и изучение пословиц не только обогащает и расширяет словарный запас, но и помогает сформировать социолингвистическую компетенцию студентов в обучении языкам.*

Например:

Таңғы асты тастама,кешкі асты баспа.

Не пропускай завтрак, но не переедай за ужином.

Don't skip breakfast, but don't overeat at dinner.

Пословица, это малая форма народного поэтического творчества, облаченная в краткое, ритмизованное изречение, несущее обобщённую мысль, вывод, иносказание с дидактическим уклоном, а также, пословица - это фольклорный жанр, которая в краткой форме выражает народное мышление и мировоззрение.

Поговорка, это складная короткая речь, ходячее выражение без поучительного смысла.

Пословицы и поговорки - древний и широко распространенный жанр устного народного творчества. Они сопровождают людей еще с давних времен.

Поговорка — это устоявшаяся фраза или словосочетание, образное выражение, метафора, которая самостоятельно не употребляется. Поговорки используются предложениях для придания яркой художественной окраски фактам, вещам и ситуациям [2, с.16].

Например:

Казахский язык	*Русский язык*	*Английский язык*
Аш адамға балық берме қармақ бер	*Голодному не дай рыбу, а удочку*	*Don't give a hungry man a fish, give him a fishing rod*
Ас тұрған жерде ауру тұрмайды	*Где еда, там болезнь не задерживается*	*Where there is food, illness cannot linger*
Жаман ас ішінен шықпайды	*Плохая еда не уходит из души*	*Bad food never leaves the heart*
Тұзсыз дәмді емес, ал нансыз тойымсыз	*Без соли не вкусно, а без хлеба не сытно*	*Without salt it's not tasty, and without bread it's not satisfying*
Сізге жақсы ас, маған жақсы сөз	*Вам — хорошая еда, мне — хорошее слово*	*You get good food, I get kind words*

Функциональные возможности пословиц и поговорок позволяют использовать их в практике преподавания родного и иностранных языков. Использование пословиц и поговорок помогает студентам в непринужденной игровой форме отработать произношение отдельных звуков и других разнообразных параметров, обеспечивающих возможность осуществлять учебную деятельность при обучении языкам.

Самые популярные пословицы активно встраиваются в повседневную речь в виде фразеологических словосочетаний.

Например:

на казахском-

1. *Жеп жарымаған, ішіп жарымайды.*
2. *Жақсы ас қалғанша, жаман қарын жарылсын.*
3. *Жаман тамаққа тұз көп, жаман сөзге сөз көп.*
4. *Ас қадірін аштықта білесің.*
5. *Арпа, бидай – ас екен, алтын, күміс – тас екен.*

на русском-

1. *Кто плохо ест, тот и плохо пьёт.*
2. *Лучше пусть лопнет плохой желудок, чем останется хорошая еда.*
3. *В плохой еде соли много, в плохих словах – слов много.*
4. *Цену еды узнаешь в голоде.*
5. *Ячмень и пшеница – это еда, а золото и серебро – всего лишь камни.*

на английском-

1. *Those who don't eat well won't drink well either.*
2. *Better to burst a bad stomach than to waste good food.*
3. *Bad food has too much salt, bad words have too many words.*
4. *You understand the value of food during hunger.*
5. *Barley and wheat are food, but gold and silver are just stones.*

Казахский, русский, английский языки очень богаты идиоматическими выражениями, пословицами и поговорками, которые постоянно встречаются в различной литературе, в газетах, в фильмах, на радио и телевидении, а также в ежедневном общении культур [3с.68].

Казахский язык	Русский язык	Английский язык
Таңғы ас-деңсаулық кепілі	Завтрак-залог здоровья	Breakfast is the key to health
Ас — адамның арқауы	Еда — основа жизни человека	Food is the foundation of human life
Астың дәмін тұз кіргізеді	Вкус еде придает соль	Salt gives food its taste
Аштықта ішкен ас қадірлі	Еда, съеденная в голоде, особенно ценна	Food eaten in hunger is especially valuable

В теоретическом исследовании данной работы проведен подробный анализ, переосмысление и подбор ситуаций, адекватных значению той или иной пословицы или поговорки- составлена таблица сопоставлений. Поговорки и пословицы на казахском, русском , английском языках вошли в сокровищницу мировой культуры - они отражают не только самобытность и культурное наследие казахского народа, они впитали мудрость многовекового обогащения культурным опытом с другими народами .Для того чтобы понять характер народа, его взгляды на жизнь и приоритеты необходимо прибегнуть к достоверным источникам, которыми являются пословицы. Пословицы называют великолепным инструментом, с помощью которого можно изучать языки и историю народа.

Интересны поговорки, представляющие собой как лексически, так и понятийно разные реализации одного концепта- «ЕДА» на трех языках.

Например:

Казахский язык	Русский язык	Английский язык
Ас атасы – нан	Хлеб — всему голова	Bread is the head of everything
Ас ішіп, аяқ босат	Поел — полегчало	After eating, the heart feels lighter
Астың дәмін тұз келтіреді, адамның сәнін сөз келтіреді	Вкус пищи добавляет соль, а украшение человека — слово	Salt enhances food, kind words enhance a person
Жаман тамақ – жанды ауыртар	Плохая еда — душу терзает	Bad food torments the soul
Нан бар жерде ән бар	Где хлеб, там и песня	Where there is bread, there is music

Носители трех культур вкладывают в концепт «ЕДА» идею того, что еда является первоосновой физического существования человека, что практически в любой культуре она обретает обрядово-ритуальное и символическое значение, закрепленное на лексико-фразеологическом уровне языка.

Лингвокультурный анализ пословиц и поговорок представляет собой процесс знакомства с историей и обществом данных народов, обогащает и улучшает структуру знаний при обучении языкам в аспекте трехъязычной образности[4,с.57]. Так как:

. большинство пословиц и поговорок возникло из жизненного опыта. Они не сочинялись кем-то намеренно, а возникали естественным путем, в результате наблюдений за семейной, общественной жизнью, трудом и бытом нации;

. народная мудрость ярко проявляются в пословицах и поговорках, а знание пословиц и поговорок того или иного народа способствует не только знанию языка, но и лучшему пониманию образа мысли и характера народа;

. сравнение английских, казахских и русских пословиц и поговорок показывает, как много общего имеют эти народы, что, в свою очередь, способствует их лучшему взаимопониманию и сближению;

Пословицы и поговорки разных народов выражают суждения, свойственные всем народам, но у каждого народа они выражаются по -своему, с учетом этнических особенностей, обычаев, и исторического прошлого.

Например:

Казахский язык -

1) Қуанышты қонаққа тәтті тағам.
2) Аштықта жеген – нан тәтті.
3) Астың дәмін тұз келтіреді өмірдің сәнін қыз келтіреді
4) Нан- бәрінің басы.

Русский язык -

1) Счастливому гостю-сладкая еда.
2) Еда в голоде особенно сладка.
3) "Вкус пище придаёт соль, а жизнь украшает женщина."
4) Хлеб всему голова.

Английский язык-

1) "A happy guest deserves sweet food."
2) Food tastes sweeter when you're hungry.
3) The taste of food comes from salt, and the beauty of life comes from a woman.
4) Read is the beginning of everything

В результате исследования сделаны следующие выводы:

1) пословицы и поговорки многозначны и ярки. Они находятся вне времени и вне классового деления;

2) пословицы и поговорки казахского и английского языков довольно-таки трудны для перевода на русский. Главная задача понять содержание пословицы или поговорки, прежде чем подобрать адекватный способ ее перевода;

3) в казахском и русском языках можно подобрать эквиваленты английским пословицам и поговоркам.

В данной работе исследованы особенности отражения культурного наследия нации, её духовных ценностей посредством изучения пословиц и поговорок на трех языках.

Пословицы и поговорки - величайшая ценность духовной культуры народа, проявление его наблюдательности, остроумия и творческой силы, зафиксированное языковыми средствами либо в виде кратких поучений и назиданий, либо образно, иносказательно, метафорически [5, с.79].

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DESIGNING THE PREPARATORY STAGE OF PEER-TEACHING WITH DIGITAL TOOLS IN ENGLISH LANGUAGE CLASSES

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ПРОЕКТИРОВАНИЕ ПОДГОТОВИТЕЛЬНОГО ЭТАПА ВЗАИМООБУЧЕНИЯ (PEER-TEACHING) С ПРИМИНЕНИЕМ ЦИФРОВЫХ ИНСТРУМЕНТАХ НА УРОКАХ АНГЛИЙСКОГО ЯЗЫКА

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Abstract
The implementation of peer-teaching technologies in higher education requires meticulous pedagogical design, particularly at the preparatory stage. This article examines the role of the preparatory phase in organizing peer-to-peer interaction in English language classrooms. Drawing on sociocultural theory and the concept of the Zone of Proximal Development, the study conceptualizes digital tools as mediational artifacts that support learners during cross-linguistic knowledge construction. The analysis argues that a structured preparatory stage, including linguistic diagnostics and the selection of appropriate ICT tools (such as interactive boards and generative AI), can significantly reduce cognitive load. By using AI-mediated scaffolding, students can conceptualize ideas in their stronger language while gradually developing academic proficiency in English. The paper concludes that integrating digital tools within a structured preparatory framework fosters strategic competence and ensures more equitable participation in multilingual educational environments.

Аннотация
Внедрение технологий взаимообучения (peer-teaching) в высшем образовании требует тщательного педагогического проектирования, особенно на подготовительном этапе. В данной статье рассматривается роль подготовительной фазы в организации взаимодействия «равный — равному» на уроках английского языка. Опираясь на социокультурную теорию и концепцию зоны ближайшего развития, исследование концептуализирует цифровые инструменты как посреднические артефакты, поддерживающие учащихся в процессе межъязыкового построения знаний. Анализ показывает, что структурированный подготовительный этап, включающий лингвистическую диагностику и подбор соответствующих ИКТ-инструментов (таких как интерактивные доски и генеративный ИИ), может значительно снизить когнитивную нагрузку. Используя поддержку на базе ИИ, студенты могут формулировать идеи на более сильном для них языке, постепенно развивая академическую компетенцию на английском. В статье делается вывод, что интеграция цифровых инструментов в структуру подготовительного этапа способствует развитию стратегической компетенции и обеспечивает более равное участие в многоязычной образовательной среде.

Keywords: *peer-teaching; preparatory stage; digital tools; communicative competence; language scaffolding; generative AI; higher education; English language teaching.*
Ключевые слова: *взаимообучение; peer-teaching; подготовительный этап; цифровые инструменты; коммуникативная компетенция; языковое сопровождение; генеративный ИИ; высшее образование; обучение английскому языку.*

Введение

Развитие коммуникативной компетенции на иностранном языке остается стратегическим приоритетом высшего образования, особенно в условиях растущей академической мобильности и глобальной интеграции. В современной педагогической практике *поиск методов, трансформирующих студентов из пассивных получателей информации в активных участников образовательного процесса, привел к широкому внедрению технологий взаимообучения (peer-teaching). Взаимообучение основано на принципе «обучение через преподавание другим», что не только способствует усвоению лингвистического материала, но и развивает критически важные гибкие навыки (soft skills), такие как аргументация, критическое мышление и социальная ответственность.*

Теоретические основы данного исследования уходят корнями в концепцию коллективного способа обучения (КСО), разработанную В.К. Дьяченко, которая подчеркивает переход от фронтального обучения к систематическому взаимодействию в парах сменного состава. С социокультурной точки зрения этот процесс рассматривается как форма социального посредничества в зоне ближайшего развития, где более способный сверстник или структурированная среда сотрудничества обеспечивают опору (scaffolding) для лингвистического роста учащегося.

Однако эффективность взаимообучения в значительной степени зависит от качества подготовительного этапа. Спонтанное взаимодействие без предварительной диагностической и методической структуризации часто приводит к когнитивной перегрузке и фиксации языковых ошибок. В цифровую эпоху этот этап должен быть переосмыслен через интеграцию информационно-коммуникационных технологий (ИКТ) и генеративного искусственного интеллекта (ИИ).

Пересечение цифровой грамотности и взаимного обучения создает новый образовательный ландшафт. Цифровые инструменты, включая интерактивные платформы и поддержку на базе ИИ, служат посредническими артефактами, способными снизить языковой барьер. В многоязычных контекстах, таких как Казахстан, эти технологии позволяют студентам концептуализировать сложные дисциплинарные идеи на более сильном языке (казахском или русском), постепенно выстраивая академический дискурс на английском.

Несмотря на признанный потенциал peer-teaching, наблюдается дефицит исследований, сфокусированных именно на структурном проектировании подготовительной фазы в технологически насыщенной среде. Данная статья направлена на теоретико-методический анализ подготовительного этапа взаимообучения на уроках английского языка. Основной тезис работы заключается в том, что структурированная база подготовки, поддерживаемая цифровыми инструментами, является необходимым условием для развития функционального многоязычия и обеспечения эффективного коммуникативного взаимодействия между студентами.

Методы

Данное исследование основано на теоретическом и концептуальном дизайне, направленном на построение методологической базы для подготовительного этапа взаимообучения. Подход базируется на междисциплинарном синтезе педагогических стратегий и цифровой интеграции, а не на сборе эмпирических данных. Цель состоит в том, чтобы определить, как предварительная фаза взаимного обучения может быть структурирована для максимизации коммуникативных результатов на уроках английского языка.

Анализ опирается на четыре взаимосвязанных теоретических столпа:

- *Социокультурная теория: Эта концепция рассматривает подготовительный этап как создание зоны ближайшего развития (ЗБР), где цифровые инструменты функционируют как посреднические артефакты, расширяющие текущие языковые возможности учащегося.*
- *Теория коммуникативной компетенции: Обеспечивает критерии успешного взаимодействия, смещая акцент с грамматического совершенства на эффективное, стратегическое использование языка в академическом контексте.*
- *Перспектива транслянгвидж (translanguaging): Данная теория обосновывает использование всего лингвистического репертуара студентов (казахского, русского и английского) на этапе подготовки для обеспечения концептуальной ясности перед формальным воспроизведением на английском языке.*
- *Рамки цифровой и ИИ-грамотности: Служат основой для отбора и оценки ИКТ-инструментов, гарантируя, что технологическая интеграция способствует критическому мышлению и академической честности.*

Методологическая процедура проектирования подготовительного этапа включала три этапа:

1. Диагностический этап: Пересмотр критериев готовности студентов, включая уровень владения языком и психологическую готовность к участию в наставничестве «равный — равному».

2. Проектировочный этап: Изучение возможностей генеративного ИИ и других ИКТ-инструментов как механизмов поддержки (scaffolding), снижающих когнитивную нагрузку при переходе от мысли к выражению на иностранном языке.

3. Интеграционный этап: Разработка концептуальной модели, связывающей конкретные цифровые практики — такие как совместное создание ментальных карт и подготовка черновиков с помощью ИИ — с развитием функционального многоязычия.

Этот теоретический метод призван предоставить преподавателям структурированный инструмент для внедрения взаимообучения, который является педагогически обоснованным и технологически продвинутым.

Результаты

Концептуальный анализ подготовительного этапа во взаимообучении (peer-teaching) позволяет выделить трехмерную модель педагогического проектирования. Эта модель интегрирует диагностический, алгоритмический и технологический компоненты, обеспечивая адекватную подготовку студентов к переходу от индивидуальных учащихся к роли наставников-сверстников.

1. Пересмотр готовности студентов (Диагностическое измерение)

Результаты показывают, что подготовительный этап должен выходить за рамки простого тестирования уровня владения языком. Была разработана комплексная диагностическая база, ориентированная на «педагогическую готовность», которая включает:

• Лингвистический порог: Определение минимального запаса лексики и грамматики, необходимых для объяснения конкретной дисциплинарной концепции.

• Психологическое соответствие: Оценка уровня коммуникативной тревожности и готовности делиться знаниями, что крайне важно для создания безопасного «пространства сотрудничества» (Boud & Cohen [27]).

• Метакогнитивная осведомленность: Оценка способности студентов контролировать собственное понимание перед попыткой обучить сверстника (O'Malley & Chamot [25]).

2. Поддержка и алгоритмическое проектирование (Стратегическое измерение)

Исследование показывает, что эффективность взаимного обучения прямо пропорциональна четкости учебных «дорожных карт», предоставленных на подготовительном этапе. Ключевые результаты в этом измерении включают разработку:

• Инструктивных сценариев: Пошаговых руководств для «тьюторов», которые моделируют академический дискурс и предлагают лингвистические шаблоны для объяснения сложных идей.

• Заданий с информационным дефицитом: Проектирование материалов, в которых каждый партнер обладает уникальной частью информации, что делает активное общение на английском языке необходимым для достижения общей цели (Richards [10]).

3. Цифровая интеграция и поддержка на базе ИИ (Технологическое измерение)

Центральным результатом данного исследования является концептуализация цифровых инструментов как «когнитивных опор» (scaffolding). Анализ ИКТ-инструментов на подготовительном этапе выявил:

• Интерактивная визуализация: Инструменты, такие как Miro и Padlet, позволяют студентам совместно выстраивать ментальные карты темы на своем более сильном языке (казахском или русском) перед переводом этих концепций на английский.

• Подготовка черновиков с помощью ИИ: Использование генеративного ИИ для моделирования специфического языка дисциплины помогает студентам преодолеть разрыв между их текущим уровнем и требуемым академическим стандартом. Такой «опосредованный ИИ транслянгвидж» способствует более глубокому концептуальному пониманию и снижает страх перед лингвистической неудачей.

Интеграция этих измерений гарантирует, что к моменту начала фактического взаимодействия в формате peer-teaching когнитивная нагрузка будет распределена, а фокус внимания останется на активной коммуникативной практике.

Обсуждение

Результаты данного исследования подкрепляют теоретическое положение о том, что взаимообучение (peer-teaching) — это не просто совместная деятельность, а *высокоструктурированный педагогический процесс, требующий «внешней регуляции» на начальном этапе. Сосредоточив внимание на подготовительном этапе, мы отвечаем на распространенную в литературе критику относительно потенциальной лингвистической неточности в условиях взаимодействия «равный — равному» (Stigmar [35]). Наши данные свидетельствуют о том, что при интеграции цифровых опор в процесс подготовки у студентов формируется более высокий уровень «педагогической уверенности», что напрямую влияет на беглость их последующей коммуникации на английском языке.*

Ключевым моментом обсуждения является роль первого языка (L1) студентов на этапе подготовки. В соответствии с концепцией транслянгвидж (Wei & García [16]), данное исследование утверждает, что разрешение студентам использовать казахский или русский языки во время концептуализации заданий на английском не является признаком недостаточности знаний. Напротив, использование цифровых инструментов, таких как Miro, для многоязычного мозгового штурма функционирует как «когнитивный мост». Это подтверждает гипотезу продуктивного выхода (Swain [18]), согласно которой для создания сложных высказываний на английском языке студенты должны сначала достичь концептуальной ясности, что наиболее эффективно реализуется через использование всего их лингвистического репертуара.

Кроме того, интеграция генеративного ИИ как инструмента для «моделирования дисциплинарного дискурса» представляет собой сдвиг в роли преподавателя. Как отмечается в недавних исследованиях (Tukhtakulova [36]), преподаватель трансформируется из основного источника знаний в «архитектора цифрового посредничества». Этот сдвиг согласуется с социокультурным взглядом на обучение, где основной упор делается на предоставление необходимой поддержки (scaffolding) для продвижения студента через зону ближайшего развития (Vygotsky [37]).

Тем не менее, критической проблемой остается риск чрезмерной зависимости от подсказок ИИ. Хотя ИИ снижает когнитивную нагрузку, он также может привести к «пассивной поддержке», если студенты не будут критически взаимодействовать с результатами. Следовательно, подготовительный этап должен включать элементы цифровой грамотности, чтобы взаимное обучение оставалось активным, рефлексивным процессом, а не механическим обменом шаблонами, созданными ИИ.

Заключение

Переход от традиционного обучения под руководством преподавателя к модели взаимообучения (peer-teaching) в преподавании английского языка представляет собой значительный сдвиг в сторону более демократичного и студентоцентрированного класса. Однако, как было показано в данном исследовании, успех взаимного обучения не является неотъемлемым свойством самой деятельности, а является результатом тщательно спроектированного подготовительного этапа.

Интеграция цифровых инструментов и генеративного ИИ на этом этапе выступает в качестве жизненно важного механизма поддержки (scaffolding). Позволяя студентам использовать весь их лингвистический репертуар — включая казахский и русский языки — для концептуализации сложных идей перед воспроизведением их на английском языке, педагоги могут создать более инклюзивную и эффективную среду обучения. Цифровая визуализация и подготовка черновиков с помощью ИИ снижают когнитивные и психологические барьеры, которые часто препятствуют спонтанному общению на иностранном языке.

Результаты данной статьи показывают, что структурированная база подготовки состоит из трех столпов: комплексной диагностики готовности, алгоритмического проектирования заданий и стратегической технологической интеграции. Такой подход гарантирует, что студенты не просто «разговаривают друг с другом», а вовлечены в целенаправленный, академически обоснованный обмен знаниями.

Будущие исследования должны быть сосредоточены на долгосрочном влиянии цифрового взаимообучения на навыки автономного обучения студентов и разработке конкретных критериев оценки совместных заданий, выполняемых с поддержкой ИИ. В конечном счете, цель проектирования подготовительного этапа состоит в том, чтобы дать студентам возможность стать уверенными, цифровыми грамотными и функционально многоязычными коммуникаторами в глобальном академическом пространстве.

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FOOD METAPHOR IN THE FORMATION OF THE WORLD'S LANGUAGE CULTURE

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Пищевая метафора, будучи одной из наиболее распространенных и древних форм языкового моделирования реальности, остается значимым объектом изучения в современной лингвистике, а также метафора участвует в формировании когнитивных моделей, помогающих человеку ориентироваться в социокультурном пространстве [1].

Пищевая метафора рассматривается в широком контексте — от традиционных выражений, укорененных в языке, до новых образных конструкций, появляющихся в связи с развитием медиа-пространства и глобализацией.

Миромоделирующий потенциал пищевой метафоры в языке, определяет ее когнитивные, семантические и прагматические особенности, а также выявляет закономерности ее функционирования в различных дискурсивных сферах.

Для достижения поставленной цели необходимо решить следующие задачи:

- *рассмотреть теоретические основы изучения метафоры в современной лингвистике, проанализировать основные подходы к ее исследованию.*
- *определить особенности функционирования пищевых метафор, их классификацию и структурные характеристики.*
- *исследовать когнитивные механизмы формирования пищевых метафор, их роль в категоризации и концептуализации окружающего мира.*
- *осуществить сопоставительный анализ использования пищевых метафор в различных типах дискурсов (политическом, экономическом, медийном, бытовом).*
- *выявить динамику развития пищевых метафор в контексте современных социокультурных изменений, определить тенденции их эволюции.*
- *проанализировать влияние пищевых метафор на языковую картину мира носителей языка.*

Пищевая метафора является не просто стилистическим приемом, а мощным инструментом концептуализации реальности, формируя представления о социальных процессах и межличностных отношениях [2].

Метод когнитивного анализа – используется для выявления концептуальных структур, лежащих в основе пищевых метафор, а также их роли в организации языковой картины мира.

Метод компонентного анализа – применяется для детального исследования семантических характеристик пищевых метафор, определения их ключевых компонентов и смысловых оттенков.

Контекстуальный анализ – позволяет выявить особенности функционирования пищевых метафор в различных типах дискурсов, определить их прагматическую направленность.

Сопоставительный метод – используется для анализа универсальных и специфических черт пищевых метафор в языке, а также их аналогов в других языках (при необходимости).

Метод количественного анализа – позволяет определить частотность употребления пищевых метафор в различных дискурсивных сферах, выявить закономерности их распределения.

Метод дискурсивного анализа – направлен на изучение прагматических функций пищевых метафор, их влияния на восприятие информации и формирование определенных смыслов.

Функции метафоры в языке можно условно разделить на три основные группы. Первая — когнитивная функция, которая заключается в формировании и структурировании знаний о мире. Метафоры помогают упрощать сложные явления и процессы, создавая систему ассоциаций и образов, которые позволяют воспринимать абстрактные идеи через более конкретные и знакомые элементы. Вторая функция — коммуникативная, которая направлена на упрощение и наглядность передачи информации. Метафоры делают речь более яркой, выразительной и доступной для аудитории, помогая эффективно передавать сложные или эмоционально насыщенные концепты. Наконец, третья функция — эмоционально-оценочная, выражающая *субъективное отношение говорящего к определенным явлениям и событиям. С помощью метафор можно передать не только информацию, но и эмоции, отношение к теме, что делает высказывание более живым и насыщенным.*

Пищевая метафора, будучи распространенной во многих языках мира, может быть классифицирована по нескольким критериям. Наиболее значимыми являются:

По тематическим группам:

Метафоры, связанные с процессом еды: «глотать слова», «переварить информацию».

Метафоры, отражающие вкус: «сладкая победа», «горькая правда».

Метафоры, связанные с приготовлением пищи: «смешивать факты», «поджарить оппонента».

По функциональному назначению:

Оценочные метафоры: «сахарные речи», «кислый человек».

Описательные метафоры: «вариться в своем соку», «разбавить разговор».

По степени устойчивости:

Фразеологизированные: «всё переварить», «жевать одно и то же».

Индивидуально-авторские: «жирная ложь», «тонкая корочка правды».

Пищевая метафора является одним из ключевых механизмов осмысления окружающей действительности. Она не только отражает культурные и когнитивные особенности носителей языка, но и способствует формированию представлений о мире.

1. Роль пищевой метафоры в концептуализации действительности

Человек ежедневно сталкивается с процессами, связанными с приемом пищи, поэтому в языке закрепилось множество выражений, где еда становится основой для описания абстрактных понятий.

Примеры:

- *«Глотать обиду» – скрывать переживания, не высказывая их.*
- *«Приправить историю» – добавить детали, возможно, вымысел.*
- *«Тушить конфликт» – предпринимать меры для его урегулирования.*

Эти примеры подтверждают, что пищевая метафора не только облегчает понимание сложных процессов, но и структурирует мышление.

2. Функции пищевых метафор в языке

1. Классифицирующая – помогает разделять явления на понятные категории (например, «токсичная информация» – вредные сведения, негативно влияющие на психику).

2. Оценочная – выражает субъективное отношение к объекту или явлению («кислый характер» – неприятный, угрюмый человек).

3. Мотивационная – побуждает к действию, используя знакомые образы («не съешь – так надкуси!» – призыв сделать хотя бы часть работы).

4. Метафора как инструмент социальной стратификации – отражает статусные различия («икорная элита» – состоятельные люди, ведущие роскошную жизнь).

3. Пищевая метафора в медиадискурсе

Современные СМИ и реклама активно используют пищевые образы для привлечения внимания аудитории:

- *«Переварить новости» – осмыслить поток информации.*
- *«Фастфуд-контент» – поверхностные, быстро потребляемые медиа-продукты.*
- *«Сладкие обещания» – привлекательные, но малореальные слова политиков или рекламщиков.*

Пищевая метафора в языке отражает сложные когнитивные процессы, связывая гастрономический опыт человека с различными сферами жизни. Пищевая метафора в языке представлена разнообразными семантическими группами, каждая из которых отражает определенные аспекты человеческого опыта [3].

Основные смысловые группы включают:

1. Метафоры, связанные с приемом пищи

- *"проглотить обиду" (быстро смириться с неприятной ситуацией)*
- *"переварить информацию" (осмыслить что-либо сложное)*
- *"насыщаться знаниями" (усваивать новую информацию, обогащаться интеллектуально)*

2. Метафоры, основанные на вкусовых ощущениях

- *"горькая правда" (неприятная, но необходимая информация)*

- *"сладкие речи" (лестные или обманчивые слова)*
- *"кислая реакция" (недовольство, сарказм в ответ на ситуацию)*

3. Метафоры, отражающие процесс приготовления пищи

- *"смешивать факты" (создавать путаницу)*
- *"приправить рассказ" (добавить деталей для интереса)*
- *"вариться в собственном соку" (замыкаться в себе, находиться в ограниченном кругу общения)*

Современная лингвистика активно изучает влияние языка на формирование мировоззрения человека. Одним из важнейших инструментов моделирования реальности является метафора, которая помогает человеку осмысливать окружающий мир через знакомые образы. Среди различных типов метафор особое место занимает пищевая метафора, так как еда – это неотъемлемая часть человеческой жизни и культуры [4].

Пищевая метафора выполняет не только когнитивную, но и миромоделирующую функцию. Она отражает не только восприятие еды, но и более широкие концепты, такие как знания, эмоции, отношения, политика и экономика. В данной работе рассматривается миромоделирующий потенциал пищевой метафоры в современной лингвистике, ее функции, структура и влияние на общественное сознание.

Основные функции метафоры:

- *Когнитивная – помогает осмыслять новые явления через уже известные понятия.*
- *Экспрессивная – усиливает эмоциональную окраску речи.*
- *Оценочная – выражает субъективное отношение к объекту.*
- *Миромоделирующая – формирует представления о мире, воздействует на общественное сознание.*

Пищевая метафора основана на универсальном опыте человека, связанном с питанием. Она охватывает широкий спектр значений, от описания вкусовых ощущений до моделирования социальных процессов.

Примеры:

- *«Горькая правда» – неприятная истина.*
- *«Информационный фастфуд» – поверхностные знания.*
- *«Проглотить обиду» – подавить негативные эмоции.*

В политике пищевая метафора часто используется для создания положительного или отрицательного образа:

- *«Кормушка власти» – коррупция, незаконное обогащение.*
- *«Вариться в своем соку» – оставаться в замкнутом круге без свежих идей.*
- *«Съедобные» и «несъедобные» политические решения – приемлемость тех или иных мер.*

Использование таких выражений влияет на восприятие политических процессов обществом.

В сфере бизнеса и рекламы пищевая метафора помогает создавать яркие образы:

- *«Сладкая сделка» – выгодное соглашение.*
- *«Голодный рынок» – высокая конкуренция.*
- *«Продуктовый бум» – рост популярности товаров.*

Такие выражения делают информацию более доступной и убедительной.

Пищевая метафора глубоко укоренилась в языке и повседневном общении:

- *«Варить кашу» – организовывать дело.*
- *«Подложить свинью» – обмануть, подставить.*
- *«Пилить бюджет» – незаконно распределять государственные средства.*

Пищевая метафора – это мощный инструмент моделирования реальности. Она не только облегчает понимание сложных явлений, но и влияет на восприятие мира. Использование таких метафор в политике, рекламе, экономике и повседневной речи формирует общественное мнение и создает определенные стереотипы [5].

Сравнительный анализ пищевых метафор английском и казахском языках показывает, что несмотря на универсальность образов, их конкретная интерпретация зависит от культурных особенностей. Например, понятие "хлеб"- символизирует достаток и жизненную необходимость ("хлеб насущный"), тогда как в английском языке аналогичной ключевой пищевой единицей выступает "butter" (масло), символизирующее достаток и благополучие ("bread and butter").

Пищевая метафора играет важную роль в формировании языковой картины мира, помогая человеку осмысливать различные сферы жизни через образы, связанные с едой. В современной *лингвистике пищевая метафора рассматривается как мощный когнитивный инструмент, который не только отражает восприятие мира, но и влияет на него, структурируя мышление и коммуникацию.*

Пища – одна из базовых потребностей человека, поэтому метафоры, связанные с ней, глубоко укоренены в языке и культуре. Они помогают описывать сложные явления через простые и понятные образы.

Например:

- *«Переварить информацию» – означает осмыслить полученные знания.*
- *«Горькая правда» – указывает на неприятные, но важные факты.*
- *«Сливки общества» – обозначает элиту, лучших представителей социальной группы.*

Функции пищевой метафоры в языке:

• Оценочная – помогает выразить положительное или отрицательное отношение («сладкая жизнь», «горький опыт»).

• Эмоционально-экспрессивная – усиливает выразительность речи («наелся проблем», «обжегся на ошибке»).

• Когнитивная – участвует в процессе осмысления новых явлений («информационный фастфуд» – поверхностные знания).

Пищевая метафора обладает значительным миромоделирующим потенциалом: она не только отражает существующую реальность, но и формирует представления о ней. В условиях информационного общества ее значение усиливается, становясь неотъемлемой частью когнитивных процессов и языковой коммуникации.

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LITERATURE-BASED EXTENSIVE READING FOR DEVELOPING CRITICAL THINKING SKILLS OF PHILOLOGY STUDENTS

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Abstract

This study explores the role of literature-based extensive reading in developing the critical thinking skills of philology students. Extensive reading encourages students to read large amounts of meaningful and interesting literary texts such as novels, short stories, and essays for general understanding and personal engagement. The research aims to identify how this approach contributes to improving students' analytical thinking, interpretation, evaluation, and independent judgment. A mixed-method approach was used, including an online questionnaire, curriculum analysis, classroom observation, and literature review. The participants were philology students of Gulistan State University studying English as a foreign language. The findings revealed that students who regularly engage in literature-based extensive reading demonstrate stronger critical thinking abilities, better interpretation of texts, and greater confidence in expressing personal opinions. However, the study also found that extensive reading is not systematically integrated into the current curriculum, where traditional comprehension-based reading still dominates. The research concludes that literature-based extensive reading is an effective pedagogical tool for improving both language proficiency and critical thinking skills. It is recommended that higher education institutions integrate extensive reading activities such as reading logs, book discussions, and reflective writing tasks into philology programs to promote student-centered learning and academic development.

Keywords: extensive reading, literature-based reading, critical thinking, philology students, EFL learners, reading logs.

Introduction. In modern foreign language education, developing students' critical thinking skills has become one of the main educational goals. Philology students are expected not only to understand texts linguistically but also to analyze ideas, interpret meanings, and express independent opinions. For this reason, literature-based extensive reading is considered an effective method in language learning. Extensive reading allows students to read large amounts of interesting and meaningful literary texts such as novels, short stories, and essays for general understanding and enjoyment. This process improves language proficiency while also encouraging reflection, interpretation, and analytical thinking. Literary texts provide rich opportunities for students to evaluate characters, themes, and social issues, which naturally supports the development of critical thinking. This study investigates how literature-based extensive reading contributes to improving the critical thinking skills of philology students and explores its role in modern English language teaching.

Literature review. The EFL students should understand that reading is an important ability of learning English because the more that you read, the more you learn the language more naturally. In fact, it is not enough for EFL students if they just have time to read in the class. By reading continuously not only in academic context but also in the outside class the learners can enjoy their reading with pleasure. Extensive reading was first coined by H. Palmer to distinguish intensive reading from reading outside the classroom for enjoy. Extensive reading is, in contrast to intensive reading, generally associated with reading large amounts of text with the aim of getting an overall understanding of the reading materials. Readers are more concerned with the meaning of the text than with the meaning of individual words or sentences or the finding of specific information. According S/ Krashen, free voluntary reading significantly improves vocabulary acquisition, reading comprehension, writing ability, and overall language proficiency. He emphasizes that when students read regularly and willingly, they naturally develop deeper cognitive engagement with texts. This engagement supports the foundation of critical thinking because learners begin to question ideas, compare perspectives, and evaluate arguments independently.[1] Later Richard Day investigated this phenomenon more deeply and defined that extensive reading is an approach to second language for the learners by reading extensively, reading with their speed and fluency to enjoy the reading materials. He also calls extensive reading "pleasure reading".[2]

[1] Krashen, S. D. (2004). The power of reading: Insights from the research (2nd ed.). Libraries Unlimited.
[2] Day, R. R. (2015). Extending extensive reading. Reading in a Foreign Language.

Richard day and Julian Bamford worked out top 10 principles of extensive reading. These principles are believed to be the basic ingredients of extensive reading. These principles encourage teachers to use extensive reading as a way to examine their beliefs about reading in general and extensive reading in particular, and the ways they teach foreign language reading. In general, extensive reading top principles include reading easy, various materials that fits leraners' interest and language proficiency. Learners should be given a chance to choose what they want to read and as much as possible for just pleasure, so, reading is their own reward. It means they read for themselves, not for exam or not for learning any linguistic ability. Since reading is individual and silent, the speed is faster. Teacher should be a role model and guide in reading process.[3] F. Meng explains that current situation for teaching and learning reading in can improve students' reading competence as well as their linguistic capabilities. He also supports his assertion by describing Extensive Reading as effective and pleasurable way for undergraduates to learn and to read English as a foreign language.[4] Another research investigated the impact of extensive reading on critical thinking, or how critical thinking progress can be affected by the amount of reading. Jimenez, Haydee, Rosales, and Soraya conducted a study in El Salvador aimed at finding out whether reading for pleasure would help their ESL students improve their critical thinking skills by exposing students to the real world.[5] While R. Ennis claims that the ability to think rationally and clearly, understanding the logical connection between ideas is critical thinking. Critical thinking maybe described as the skill to engage in thoughtful and independent learning. It requires the learners to use their ability to reason. It is a matter of being an active learner rather than passive receiver of information.[6] Richard Paul and Linda Elder state that ESL students develop critical thinking skills through extensive reading. According to their argument, it is important to use critical thinking criteria to obtain authentic active learning and academic success. Students apply course concepts in real life situations, having the opportunity to think independently, basing their judgments on what they have read. Within educational environments, both students and teachers engage in active learning when participating in extensive reading, since this method allows for critical analysis. The more students read the more they come to understand the world.[7] Peter Facione also describes critical thinking as purposeful, self-regulatory judgment involving interpretation, analysis, evaluation, and inference. These definitions show that reading activities must go beyond comprehension and involve reflection and interpretation.[8]

Literary texts are especially powerful in fostering such skills because they present complex themes, moral dilemmas, symbolic meanings, and multiple perspectives. G. Lazar argues that literature in language teaching encourages personal involvement and interpretative thinking. When students read novels, short stories, poems, or dramas, they are required to infer meanings, understand character motivations, and evaluate social and cultural issues. This naturally promotes critical engagement with language and ideas.[9] J. Collie and S. Slater support this view by stating that literature offers authentic material, cultural enrichment, language enrichment, and personal involvement.[10] For philology students, literature-based extensive reading is not only a language-learning activity but also an academic practice that strengthens analytical and interpretative skills essential for their future professional development.

In the context of Uzbekistan, integrating extensive reading into philology curricula remains a developing area. Traditional reading instruction often focuses on grammar translation and text comprehension rather than analytical interpretation. However, recent educational reforms encourage student-centered learning and competency-based approaches, creating opportunities for extensive reading programs that include literature-based tasks such as reading logs, reflective journals, book discussions, and response essays. These activities strengthen both reading motivation and critical thinking performance. Therefore, literature-based extensive reading can be considered an effective pedagogical tool for developing critical thinking skills among philology students. Through continuous exposure to literary texts and reflective reading practices, students become more independent, analytical, and intellectually engaged learners. This approach supports not only language acquisition but

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[3] Day, R. & Bamford, J. (2002). Top Ten Principles for Teaching Extensive Reading. Reading in a Foreign Language. 14. 136-141. 10.64152/10125/66761.
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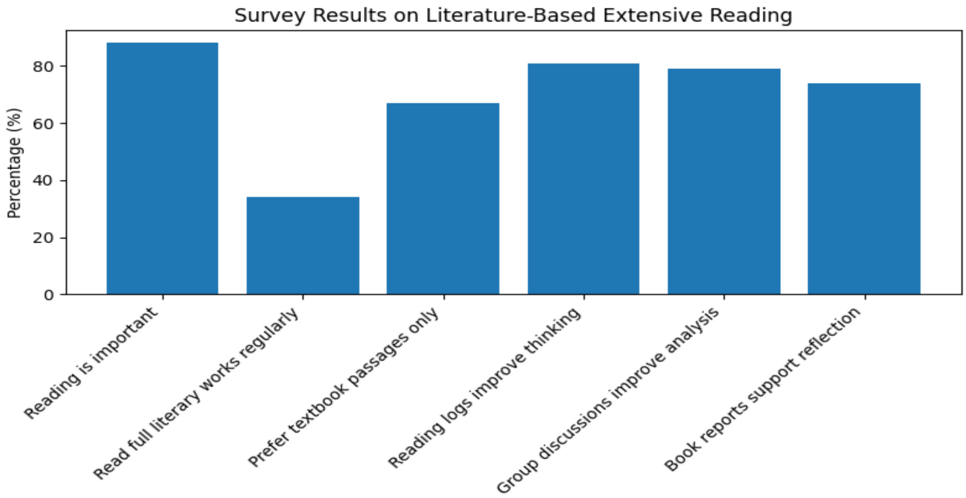
also the broader educational goal of preparing students for academic and professional success in the modern world.

Research Methodology. *This study investigates the effectiveness of literature-based extensive reading in developing the critical thinking skills of philology students. The research follows a mixed-method approach combining qualitative and quantitative methods to obtain comprehensive and reliable results. The use of both methods allows for a deeper understanding of students' reading habits, attitudes toward literature-based extensive reading, and the impact of this approach on their critical thinking development. The participants of the study are philology students of Gulistan State University who are studying English as a foreign language. The sample includes undergraduate students from different academic years, with particular attention given to students who regularly engage in reading activities as part of their curriculum. A group of English language teachers is also involved to provide professional observations regarding students' reading performance and analytical skills.*

Results and discussions. *Several research instruments are used in the study. First, an online questionnaire is conducted among students to collect data about their reading preferences, frequency of reading literary texts, attitudes toward extensive reading, and their perceptions of critical thinking development. The questionnaire includes both closed-ended and open-ended questions to gather statistical data as well as personal reflections. Second, curriculum analysis is applied to examine the current philology program and identify the presence of literature-based extensive reading components in English language courses. Special attention is given to reading tasks, literary text selection, independent reading assignments, and activities aimed at reflection and interpretation such as reading logs, book reports, and discussion tasks. Third, classroom observation is carried out to analyze how literature-based reading activities are implemented during English lessons. This helps identify teaching strategies that encourage students' interpretation, argumentation, and independent judgment. Observation focuses on teacher-student interaction, discussion quality, and students' participation in analytical reading tasks. In addition, a literature review is conducted to establish the theoretical foundation of the research. Scholarly works by Day and Bamford (1998), Krashen (2004), Paul and Elder (2004), Facione (1998), Lazar (1993), and other researchers provide the conceptual framework for understanding the relationship between extensive reading and critical thinking.*

The collected quantitative data from surveys are analyzed using percentage-based statistical methods and comparative analysis. Qualitative data obtained from open-ended responses, classroom observations, and curriculum analysis are interpreted through descriptive analysis to identify common themes and patterns. The study is based on the Interactive Reading Model as its theoretical framework, which emphasizes the interaction between the reader's background knowledge and textual information during the reading process. This model supports the idea that critical thinking develops when students actively construct meaning, question ideas, and interpret literary texts rather than passively receiving information. The research aims to determine how literature-based extensive reading contributes to the development of critical thinking skills such as analysis, interpretation, evaluation, inference, and independent judgment among philology students. The findings are expected to provide practical recommendations for improving English language teaching methodology and strengthening student-centered learning in higher education institutions.

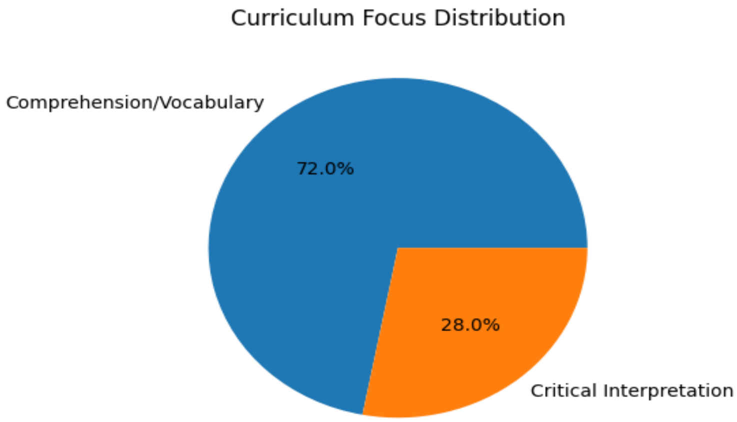
The findings of this study demonstrate that literature-based extensive reading has a positive influence on the development of critical thinking skills among philology students. The results obtained from questionnaires, curriculum analysis, and classroom observations show that students who regularly engage in reading literary texts demonstrate stronger analytical abilities, greater independence in expressing opinions, and improved interpretation skills. The online questionnaire revealed that most students consider reading an important part of their academic development; however, many of them reported that their reading is often limited to compulsory classroom materials rather than voluntary or extensive reading. A significant percentage of respondents stated that they rarely read full literary works independently and mainly focus on short textbook passages prepared for examination purposes. At the same time, the majority of students agreed that reading novels, short stories, and other literary texts helps them understand different perspectives, social issues, and human behavior more deeply (See picture 1).



Picture 1. Survey results on Literature-based Extensive Reading

Students also reported that activities such as reading logs, reflective journals, group discussions, and book reports helped them think more critically about what they read. These tasks encouraged them to summarize ideas, analyze character behavior, compare opinions, and defend personal viewpoints. Such responses indicate that extensive reading becomes more effective when it is supported by reflective and analytical follow-up activities.

Curriculum analysis showed that although reading is included in the philology program, the extensive reading component is still limited. Most reading tasks focus on comprehension questions, vocabulary exercises, and grammar-based analysis rather than critical interpretation. Independent reading assignments are not systematically integrated into the curriculum, and literature-based tasks such as sustained reading projects, literature circles, or response journals are not widely practiced. This suggests that there is significant potential for improving curriculum design by including structured extensive reading programs (See picture 2).



Picture 2. Curriculum distribution on integrating extensive readinga and critical thinking

Classroom observations confirmed that teacher-centered instruction remains dominant in many English lessons. In several observed classes, students were primarily asked to translate texts or answer factual questions instead of discussing themes, evaluating arguments, or interpreting deeper meanings. However, in classes where teachers used open-ended questions and discussion-based reading tasks, students showed greater engagement and stronger critical responses. They participated more actively, justified their opinions, and connected literary themes to real-life situations.

These findings support the views of Paul and Elder (2004), who emphasize that critical thinking develops through active analysis and reflection rather than passive information reception. Similarly, Facione (1998) identifies interpretation, evaluation, and inference as essential elements of critical thinking, all of which are naturally encouraged through literature-based extensive reading. Krashen's (2004) theory of free voluntary reading also supports the idea that frequent reading improves both language competence and deeper cognitive engagement.

The results are also consistent with the study conducted by Guevara Jiménez and Osorio Rosales, which found that extensive reading enhances students' ability to make independent judgments and apply knowledge to real-life contexts. In this research, philology students demonstrated similar improvements when they were exposed to regular literary reading and reflective discussion tasks. Literature provides multiple interpretations and encourages students to question assumptions, recognize ambiguity, and form evidence-based conclusions. This process strengthens both academic reading skills and intellectual independence.

Conclusion. *The study confirms that literature-based extensive reading is not only a useful strategy for improving language proficiency but also an effective tool for developing critical thinking skills in philology students. To achieve better results, higher education institutions should integrate extensive reading more systematically into the curriculum, provide access to suitable literary materials, and encourage teaching methods that promote reflection, discussion, and independent analysis. The findings of this study show that extensive reading becomes more effective when combined with activities such as reading logs, group discussions, and reflective writing. Therefore, integrating literature-based extensive reading into philology curricula can significantly contribute to academic success and the development of critical, independent learners.*

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GAMIFICATION STRATEGIES FOR ENHANCING INTERCULTURAL WRITING COMPETENCE IN A FOREIGN LANGUAGE TEACHING CONTEXT

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Abstract
The integration of gamification into foreign language education has attracted considerable scholarly attention; however, its application to intercultural writing competence remains underexplored. This mixed-methods study investigates the effect of a theory-driven gamification framework — grounded in the isomorphism between game mechanics and Byram's (1997) five savoirs — on the development of intercultural writing competence among English as a Foreign Language (EFL) learners at the tertiary level in Kazakhstan. The quantitative strand employed a quasi-experimental pre-test/post-test design (N = 84; experimental group n = 42, control group n = 42) across a 14-week semester, measuring gains across three dimensions: Cultural Awareness, Rhetorical Flexibility, and Audience Accommodation. Analysis of covariance revealed statistically significant and practically meaningful advantages for the experimental group (p < .001, Cohen's d = 0.74). The qualitative strand integrated reflexive thematic analysis of semi-structured interviews, focus-group discussions, and student-produced texts, generating four themes that illuminate the psychological and social mechanisms underlying the quantitative gains: psychological safety through play, gamified prompts for cultural reflexivity, collaborative intercultural mediation, and the limits of extrinsic reward. Together, these findings suggest that well-structured, ICC-aligned gamification constitutes a productive pedagogical scaffold for intercultural writing development, while cautioning against designs that prioritise point accumulation over genuine cultural engagement.

Keywords: gamification; intercultural writing competence; intercultural communicative competence; EFL writing; Byram's savoirs; mixed methods; Kazakhstan

Introduction

Writing in a foreign language is not a purely linguistic endeavour. It requires navigating culturally embedded conventions of discourse organisation, audience expectations, and rhetorical norms that vary substantially across cultural communities. For learners of English as a Foreign Language (EFL), acquiring intercultural writing competence — the capacity to produce texts that are grammatically accurate, culturally sensitive, and rhetorically effective for diverse readerships — constitutes one of the most demanding challenges in advanced language education (Canagarajah, 2013; Hyland, 2016).

Despite its centrality to global communicative success, intercultural writing competence has received comparatively little attention in the gamification literature. Research on game-based language learning has focused predominantly on vocabulary acquisition, grammatical accuracy, and oral fluency (Berns et al., 2013; Dehghanzadeh et al., 2021), with few studies examining how game design elements might scaffold the culturally sensitive dimensions of written production. This gap is particularly significant given accumulating evidence that motivation and affective engagement are pivotal determinants of writing development (Dörnyei & Ryan, 2015; Yavuz et al., 2020).

Gamification — broadly defined as the application of game design elements to non-game contexts (Deterding et al., 2011) — offers theoretically promising affordances for intercultural writing pedagogy. Points, badges, and narrative missions can sustain engagement over the extended practice periods that writing development demands; branching cultural scenarios can contextualise writing within situations that necessitate perspective-taking; and collaborative competitive structures can create meaningful peer audiences for student writing, activating the audience awareness that characterises skilled intercultural communication. Critically, however, gamification's effectiveness depends on whether game elements are aligned with specific learning objectives or merely superimposed as motivational decoration — what Deterding et al. (2011) term 'pointification.'

The present mixed-methods study was designed to address this gap by implementing and evaluating a semester-long ICC-aligned gamification framework in an EFL academic writing course in Kazakhstan. The research was guided by three questions: (1) Do ICC-aligned gamification strategies produce statistically significant improvements in EFL learners' intercultural writing competence relative to conventional instruction? (2) Which dimensions of intercultural writing competence — Cultural Awareness, *Rhetorical Flexibility, and Audience Accommodation — are most responsive to gamified instruction? (3) Through what psychological and social mechanisms does gamified instruction influence learners' intercultural writing development, as perceived by students and instructors?*

By integrating quantitative and qualitative evidence within a single convergent framework, this study contributes both empirical findings and process-level understanding to the intersection of gamification research and intercultural communication pedagogy.

Literature review

Intercultural Writing Competence

Intercultural writing competence builds upon Byram's (1997) foundational model of intercultural communicative competence (ICC), which organises the construct around five savoirs: declarative knowledge of culture (savoir), skills of interpreting and relating (savoir comprendre), skills of discovery and interaction (savoir apprendre/faire), attitudes of openness and curiosity (savoir être), and critical cultural awareness (savoir s'engager). Applied to writing, these dimensions translate into the capacity to recognise genre conventions as culturally situated, to adapt rhetorical strategies to diverse audiences, and to sustain a stance of critical reflection on one's own and others' discursive practices (Connor, 2011; Liddicoat & Scarino, 2013).

Research in the contrastive rhetoric tradition (Connor, 1996) has established that discourse organisation preferences — paragraph development, directness, argumentation — differ systematically across languages and cultures, creating challenges for L2 writers that extend beyond grammatical accuracy. The subsequent intercultural rhetoric paradigm (Connor, 2011) reframed these differences not as deficits but as rhetorical resources, emphasising that effective pedagogy should cultivate critical awareness of cross-cultural variation rather than mere conformity to Anglo-American academic conventions. Deardorff's (2006) process model further specified that ICC development proceeds from internal attitudinal change — openness, curiosity, respect — through cognitive knowledge and skills to observable intercultural outcomes, underscoring the importance of affective scaffolding in writing instruction.

Gamification in Language Education

The theoretical foundation for gamification in education derives primarily from self-determination theory (SDT; Deci & Ryan, 2000), which identifies autonomy, competence, and relatedness as fundamental psychological needs whose satisfaction promotes intrinsic motivation. Well-designed gamification can address all three: choice architecture supports autonomy; progressive challenges calibrated to proficiency support competence; and collaborative or competitive social structures support relatedness (Sailer et al., 2017).

Empirical studies document positive effects of gamification on vocabulary retention (Subhash & Cudney, 2018), grammatical accuracy (Flores, 2015), and learner motivation (Mekler et al., 2017). Systematic reviews by Dehghanzadeh et al. (2021) and Ortega-Arranz et al. (2019) indicate moderate learning effect sizes overall, moderated substantially by task design quality and the degree of alignment between game elements and learning objectives. Yavuz et al. (2020) specifically demonstrated that gamification reduces writing anxiety in EFL contexts, a finding of particular relevance to intercultural writing, where anxiety about cultural misrepresentation can suppress risk-taking. However, critics note that reward systems risk reducing complex learning to mechanical point accumulation — 'pointification' — if not carefully integrated with meaningful pedagogical goals (Deterding et al., 2011; Hamari et al., 2014).

Notably absent from this body of work are studies that apply gamification to the specifically intercultural dimensions of writing. Zhang and Hasim (2023) called for research at precisely this intersection, identifying the development of higher-order cultural reflection through game mechanics as a critical gap. The present study responds directly to that call.

Theoretical Framework: The Isomorphism Principle

This study is grounded in a convergent framework integrating SDT (Deci & Ryan, 2000), Byram's (1997) ICC model, and the isomorphism principle — the proposition that optimal gamification design maps specific game mechanics onto specific learning objectives rather than applying game elements generically. Table 1 (presented in the Method section) operationalises this principle by establishing explicit correspondences between each gamification strategy employed and the savoir it is designed to activate. From activity theory (Engeström, 1987; Vygotsky, 1978), the study adopts the unit of analysis as the culturally mediated activity system, treating gamification artefacts — badges, missions, leaderboards — as mediating tools within the broader pedagogical activity of intercultural writing development.

Research Design

A convergent mixed-methods design was employed, in which quantitative and qualitative data were collected concurrently, analysed separately, and integrated at the interpretation stage (Creswell &

Plano Clark, 2018). The quantitative strand used a quasi-experimental pre-test/post-test control group design to assess the effect of the gamification framework on measured intercultural writing competence. The qualitative strand used a reflexive thematic analysis of interview, focus-group, and document data to illuminate the psychological and social mechanisms through which the framework produced its effects. Triangulating these two strands enabled the study to address both the 'whether' and the 'how' of gamified ICC writing instruction.

Participants and Setting

Participants were drawn from a medium-sized university in Kazakhstan where English is taught as a foreign language, recruited through purposive maximum variation sampling. The quantitative sample comprised 84 undergraduate students (M age = 19.7 years, SD = 1.2; 54% female) enrolled in a second-year EFL academic writing course, all verified at the B1–B2 CEFR range through institutional placement testing. Students spoke Kazakh or Russian as a first language and had completed at least six years of formal English instruction.

The qualitative sub-sample comprised ten of the experimental-group students (six female, four male; aged 19–21; B2–C1 proficiency) and four EFL instructors with at least three years of writing-course experience and a stated interest in technology-enhanced instruction. Two instructors had prior experience with gamified applications in vocabulary or reading contexts. Written informed consent was obtained from all participants; the study received ethical approval from the institutional review board.

Gamification Framework and Isomorphism Mapping

Over the 14-week semester, the experimental group participated in an ICC-aligned gamification framework hosted on the Classcraft platform. The framework was designed according to the isomorphism principle, establishing explicit correspondences between each game mechanism and a specific savoir from Byram's (1997) model. Table 1 presents these correspondences along with illustrative student behaviours observed during the intervention.

Table 1

Mapping of Gamification Strategies to Byram's (1997) Savoirs and Observed Student Behaviours

Gamification Strategy	*Byram's Savoir*	*ICC Dimension Targeted*	*Example Student Behaviour*
Narrative-contextualised writing missions (cultural quests)	*Savoir comprendre (interpreting/relating)*	*Rhetorical flexibility; cross-cultural text interpretation*	*Analysing a culturally ambiguous email and producing a justified written response calibrated to a foreign audience*
Badge system for sub-competency recognition	*Savoir s'engager (critical cultural awareness)*	*Metacognitive awareness of cultural norms in writing*	*Critically comparing Kazakh and English conventions of academic apology in a reflective journal entry*
Collaborative peer-review leaderboard (guilds)	*Savoir apprendre/faire (discovery/interaction)*	*Audience accommodation; collaborative intercultural mediation*	*Peer-teaching cultural pragmatics to improve a joint text score; explaining why a literal translation sounds impolite*
Role-play writing simulation ('Write as if you were…')	*Savoir être (attitudes: openness, curiosity)*	*Perspective-taking; reduction of intercultural anxiety*	*Adopting a British student's rhetorical perspective when writing a promotional text about a Kazakh cultural tradition*
Reflective cultural journal (non-graded)	*Savoir (declarative knowledge of culture)*	*Cultural awareness; self-regulated cultural inquiry*	*Documenting self-observed shifts in cultural assumption after each writing mission; identifying rhetorical surprises*

Note. ICC = Intercultural Communicative Competence. Savoirs are presented as conceptualised in Byram (1997). All examples are drawn from qualitative data collected during the intervention.

Five mechanisms were implemented. Narrative-contextualised writing missions provided the structural spine of the intervention: each week was framed as a distinct cross-cultural communication challenge requiring a written response calibrated to a culturally specific audience — for example, drafting a formal complaint to a German business partner, composing a community announcement for a Kenyan readership, or negotiating a culturally loaded misunderstanding through email correspondence with a hypothetical British peer. Missions were sequenced from lower to higher rhetorical and cultural complexity across the 14 weeks.

A badge and experience point (XP) system awarded recognition for specific sub-competencies — cultural accuracy, audience calibration, genre adherence, and revision quality — rather than for global writing quality alone, thereby making discrete intercultural writing skills legible and achievable as intermediate goals. Collaborative peer-review guilds assigned learners to cross-cultural response teams of four; teams evaluated one another's writing using a structured intercultural rubric and collectively *earned guild points for feedback quality, simulating authentic cross-cultural review processes. A role-play simulation strand required students to write from an explicitly non-Kazakh rhetorical perspective, activating savoir être through enforced perspective-taking. Finally, a non-graded reflective cultural journal invited students to document observations on cultural differences encountered in each mission and to reflect on their rhetorical decision-making, providing a space for savoir s'engager without the evaluative pressure that can inhibit exploratory cultural inquiry.*

The control group received the standard curriculum — the same writing objectives delivered through conventional instruction, without gamification elements, cultural quests, or structured intercultural peer review.

Quantitative Instruments

Intercultural writing competence was assessed using a purpose-developed rubric validated through three expert panel reviews comprising specialists in intercultural rhetoric, EFL writing pedagogy, and language assessment. The rubric measured three dimensions on a 20-point scale each: Cultural Awareness (sensitivity to culturally specific audience expectations and rhetorical conventions), Rhetorical Flexibility (ability to adapt discourse organisation, argumentation style, and register to target cultural contexts), and Audience Accommodation (calibration of textual content and tone to the implied reader's cultural knowledge and communicative preferences). Total scores ranged from 0 to 60. Inter-rater reliability for double-blind scoring of 25% of scripts by two independent raters yielded an intraclass correlation coefficient (ICC) of .87, indicating excellent reliability.

Qualitative Instruments

Three instruments ensured method triangulation. Semi-structured individual interviews (60–90 minutes) explored the ten students' perceptions of gamified activities, the role of game mechanics in cultural reflection, motivations to write in English, and moments of perceived intercultural growth. A focus-group discussion (90 minutes) with the four instructors addressed pedagogical rationale, observed changes in students' writing, and implementation challenges. Document analysis examined 30 student-produced texts — an initial diagnostic essay, a mid-term reflective narrative, and a final collaborative cultural guide per participant — analysed for evidence of intercultural awareness using Byram's framework categories. All interviews and the focus group were audio-recorded, transcribed verbatim, and anonymised.

Data Analysis

Quantitative data were analysed using IBM SPSS Statistics 27. Between-group differences in post-test scores, controlling for pre-test performance, were examined using analysis of covariance (ANCOVA). Cohen's d was computed as a measure of practical effect size. Within-group gain scores for each rubric dimension were examined using paired-samples t-tests with Bonferroni correction. Qualitative data were analysed using six-phase reflexive thematic analysis following Braun and Clarke (2019), proceeding from familiarisation through initial coding, theme development, review, definition, and naming. An inter-coder dialogue process was employed — a second researcher independently coded 25% of the data and discussed interpretive divergences with the first author until consensus was reached — to enhance analytical credibility without imposing quantitative reliability metrics that are epistemologically inconsistent with reflexive thematic analysis. Analysis was abductive, permitting themes to emerge from data while interpreting them against the ICC and gamification literature.

Results

Quantitative Findings: Between-Group Differences

Table 2 presents descriptive statistics and ANCOVA results. With pre-test scores entered as a covariate, the experimental group demonstrated significantly higher post-test total scores ($M = 47.3$, $SD = 5.8$) than the control group ($M = 38.6$, $SD = 6.1$), $F(1, 81) = 44.7$, $p < .001$, Cohen's $d = 0.74$, a medium-to-large effect indicating practically meaningful differences beyond statistical significance.

Table 2

Descriptive Statistics and ANCOVA Results for Intercultural Writing Competence Scores

Measure	EG Pre M (SD)	EG Post M (SD)	CG Pre M (SD)	CG Post M (SD)	F	d
Total Score (0–60)	30.1 (5.2)	47.3 (5.8)	29.8 (5.5)	38.6 (6.1)	44.7**	0.74
Cultural Awareness (0–20)	10.2 (2.1)	16.4 (2.3)	10.0 (2.0)	13.1 (2.5)	38.2**	0.69
Rhetorical Flexibility (0–20)	9.8 (2.4)	15.9 (2.6)	9.9 (2.2)	12.8 (2.8)	51.3**	0.81
Audience Accommodation (0–20)	10.1 (1.9)	15.0 (2.2)	9.9 (2.1)	12.7 (2.4)	29.6**	0.61

*Note. EG = Experimental Group; CG = Control Group; M = Mean; SD = Standard Deviation; F = ANCOVA F-statistic (df = 1, 81); d = Cohen's d. **p < .001.*

Subscale analysis revealed Rhetorical Flexibility as the dimension most responsive to the intervention (d = 0.81), followed by Cultural Awareness (d = 0.69) and Audience Accommodation (d = 0.61). All three differences were statistically significant at p < .001 after Bonferroni correction.

Qualitative Findings: Thematic Analysis

Thematic analysis generated four overarching themes that together illuminate the experiential and social processes underlying the quantitative gains.

Theme 1. Psychological Safety Through Play: Reframing Cultural Risk

Students consistently described the gamified environment as a space in which linguistic and cultural errors were reframed as expected steps within a quest rather than as failures warranting shame. This reframing lowered what participants termed their 'intercultural anxiety' — a fear of misrepresenting their own culture or causing cultural offence — in ways that generic encouragement from instructors had not previously achieved. Malika, a third-year student, articulated the shift:

"When I had to write a response to a British student's complaint about our tea ceremony, I first worried I would offend. But the badge system made me think: 'Okay, this is just a mission. I can try, and if I make a cultural mistake, the next quest will help me fix it.'"

(Malika, Interview 3)

Instructors confirmed in the focus group that visible anxiety around cultural content decreased after approximately the second week. This finding extends Yavuz et al.'s (2020) demonstration that gamification lowers general writing apprehension by specifying that what is lowered in an intercultural writing context is specifically the affective filter around cultural risk-taking — the foundational attitudinal precondition for ICC development identified by Deardorff (2006).

Theme 2. The Stereotype Detour: Game Mechanics as Prompts for Cultural Reflexivity

Specific gamified elements — particularly branching narrative choices and 'cultural dilemma' missions — compelled students to pause and interrogate cultural assumptions that otherwise operated below conscious attention. The mechanism was not motivational in a simple reward sense; it was structural: branching required students to produce written justifications for their rhetorical choices, making implicit cultural logic explicit. Akhmediyar, a second-year student, described the experience:

"The game didn't let me just click a button; it asked me to write a justification for my choice. That made me realise that my 'polite' refusal in Kazakh might be read as 'evasive' in English. I never thought about that before."

(Akhmediyar, Interview 7)

Document analysis corroborated this self-report: mid-term reflective narratives showed a marked increase in explicit metalinguistic commentary on cultural convention relative to diagnostic essays, with students noting specific contrasts between Kazakh and English rhetorical norms in areas of directness, apology, and formality. This finding resonates with Liddicoat and Scarino's (2013) argument that intercultural language teaching requires deliberate 'noticing' of cultural practices — a function the gamified branching structure discharged systematically.

Theme 3. Collaborative Competition and the Emergence of Intercultural Mediators

The collaborative guild leaderboard, which rewarded teams for jointly improving the cultural sensitivity of a shared text, gave rise to an emergent classroom role that instructors described as the 'intercultural mediator': a student who voluntarily explains cultural nuances to teammates in order to improve the group's collective score. This role transformed intercultural competence from an abstract rubric criterion into a socially valued, peer-recognised skill. Instructor Sara observed:

"I saw a quiet transformation: a student who had never spoken about Kazakh customs suddenly became the 'expert' for her group because she could explain why a certain direct translation would sound impolite. That was the moment when intercultural competence stopped being a rubric and became a living skill."

(Sara, Focus Group)

This dynamic aligns with Deardorff's (2006) processual model, in which internal attitudinal openness leads to cognitive knowledge acquisition and ultimately to observable intercultural interaction outcomes. The guild structure provided a structured opportunity for that progression to unfold within the writing classroom, transforming what is usually a solitary, anxiety-laden activity into a socially mediated and culturally productive one.

Theme 4. The Limits of Badges: When Gamification Displaces Cultural Engagement

A critical sub-theme emerged from approximately the mid-point of the intervention: for a minority of participants, the motivational logic of the badge system began to compete with — and in some cases supersede — the goal of genuine cultural reflection. Two students reported consciously selecting culturally simpler rhetorical options because they were faster to produce and still sufficient to earn the available points. Aikhanym, a second-year student, was candid about the trade-off:

"At some point, I caught myself choosing a simpler cultural explanation because it was faster and still earned the points. I knew it was superficial, but the game encouraged speed."

(Aikhanym, Interview 9)

Instructors likewise cautioned that without continuous recalibration of task design, gamification risks encouraging a 'tick-box' approach to culture that reduces savoir s'engager — critical cultural awareness — to a mechanical exercise. This finding extends the warnings against 'pointification' (Deterding et al., 2011) by specifying an intercultural dimension: when extrinsic speed-and-reward logic dominates, depth of cultural reflexivity is the first casualty. It also confirms Hamari et al.'s (2014) argument that gamification effectiveness is highly context-dependent and that user responses to game elements are not uniform.

Discussion

The convergent mixed-methods design of this study enables an integrated interpretation that moves beyond asking whether gamification works to illuminate how and for whom it works, and where its limits lie. The quantitative findings establish that ICC-aligned gamification produces substantial and practically meaningful gains in intercultural writing competence ($d = 0.74$), comparing favourably with meta-analytic estimates of technology-enhanced writing instruction ($d \approx 0.40–0.60$; Graham et al., 2016) and suggesting that the ICC-alignment of game elements — the isomorphism principle — may account for an effect exceeding that of generic digital instruction.

The differential effect across subscales is theoretically instructive and is clarified by the qualitative evidence. Rhetorical Flexibility showed the largest gain ($d = 0.81$), consistent with the narrative-mission design: by placing learners in concrete, culturally specific rhetorical situations each week, the framework created repeated opportunities for productive discomfort with familiar discourse patterns and deliberate experimentation with alternative strategies. Theme 2 — the 'stereotype detour' — provides the mechanism: branching narrative choices required written justification of rhetorical decisions, making cultural logic visible and therefore available for revision. This operationalises Connor's (2011) argument that intercultural rhetoric awareness develops through engaged encounter with cultural difference rather than through declarative instruction alone.

The somewhat smaller gain in Audience Accommodation ($d = 0.61$) reflects a developmental reality clarified by Theme 3: internalising stable representations of cultural others — sufficiently stable to guide text-level calibration — is a slower process than experimenting with rhetorical structure. The guild leaderboard generated peer-mediated intercultural interaction that is a necessary precondition for this internalisation, but 14 weeks appears insufficient for full development. This suggests a trajectory in which rhetorical flexibility may constitute a developmentally prior attainment, with audience accommodation requiring more sustained intercultural contact or explicit metacognitive guidance.

The reduction of intercultural anxiety documented in Theme 1 carries particular theoretical weight. Deardorff's (2006) process model identifies openness and curiosity as the attitudinal foundation upon which all further ICC development rests. The gamified reframing of cultural error as a 'quest step rather than a failure' appears to have operationalised precisely this attitudinal precondition — not by eliminating challenge, but by restructuring its affective meaning. This is consistent with flow theory's concept of the optimal challenge-skill balance (Csikszentmihalyi, 1990) and extends Yavuz et al.'s (2020) findings by specifying that the anxiety reduction is specifically intercultural in character.

Theme 4 represents the study's most critical contribution. The badge-chasing behaviour reported by a minority of students and cautioned against by instructors confirms that gamification is not self-evidently beneficial and that its effectiveness in intercultural writing contexts depends on continuous pedagogical vigilance. When extrinsic reward logic — particularly speed incentives — dominates, students rationally optimise for point accumulation rather than cultural depth, precisely inverting the intended pedagogical dynamic. This finding has direct implications for framework design: tasks must be structured so that culturally superficial responses are visibly inadequate relative to the rubric criteria, and instructor recalibration at regular intervals is essential to prevent the gradual erosion of intrinsic cultural curiosity by extrinsic badge logic.

Taken together, the four qualitative themes and the quantitative subscale pattern suggest a two-level account of how ICC-aligned gamification works: at the affective level, it lowers intercultural anxiety *and raises motivational engagement by reframing cultural risk-taking as legitimate exploration; at the cognitive level, it creates structural demands — written justification, collaborative mediation, perspective-taking — that make cultural logic explicit and available for reflection. Both levels are necessary; neither is sufficient alone. A gamification framework that addresses only the motivational level risks producing engaged but culturally superficial writers; one that addresses only the cognitive level risks producing reflective but anxious ones.*

Limitations

Several limitations must be acknowledged. The quasi-experimental design with intact class assignment introduces potential selection confounds that randomisation would have addressed. The study was conducted in a single institutional and national context — a Kazakhstani university with Kazakh and Russian L1 speakers — which limits transferability to learners from other rhetorical traditions or educational systems. The 14-week timeframe may be insufficient to observe the full developmental arc of intercultural writing competence, particularly for Audience Accommodation. The absence of a delayed post-test leaves open the question of whether gains were maintained beyond the instructional period. Finally, social desirability may have influenced student interview responses, though the inclusion of document analysis and focus-group triangulation partially mitigates this concern.

Conclusion

This mixed-methods study has demonstrated that a coherently designed, ICC-aligned gamification framework — integrating narrative cultural missions, sub-competency badge recognition, collaborative guild peer review, role-play simulations, and reflective journaling — produces substantial gains in EFL learners' intercultural writing competence. The isomorphism principle — the explicit mapping of each game element onto a specific savoir — appears to be a critical design feature distinguishing effective intercultural gamification from motivational ornamentation. Qualitative evidence reveals that the framework works through two interdependent dynamics: a psychosocial safe space that lowers intercultural anxiety and enables cultural risk-taking, and a set of structured cognitive demands that make cultural logic explicit and subject to critical reflection. The critical finding regarding badge-chasing serves as a principled caution: gamification without continuous pedagogical recalibration can undermine precisely the deep cultural reflexivity it was designed to cultivate.

For practitioners, the study offers a replicable structural template grounded in established ICC theory. Embedding writing tasks within culturally specific narrative scenarios, rendering discrete sub-skills visible through targeted recognition, creating collaborative structures that simulate genuine cross-cultural readership, and reserving non-evaluated space for exploratory cultural reflection are design principles that can be adapted to diverse institutional and technological contexts and do not require sophisticated platforms.

For researchers, priority areas include longitudinal study of Audience Accommodation development across multiple semesters; comparison of learners from different L1 rhetorical traditions; experimental isolation of the isomorphism principle's contribution relative to gamification without ICC-alignment; and investigation of AI-enabled adaptive feedback as a mechanism for sustaining deep cultural reflexivity within gamified environments. As global communication increasingly demands writers who can navigate cultural difference with rhetorical flexibility and empathic precision, the development of intercultural writing competence represents an educational priority that warrants the full, theoretically grounded range of pedagogical tools available to language educators.

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ENHANCING ENGLISH FLUENCY THROUGH INTERACTIVE SPEAKING TECHNIQUES IN EFL CLASSROOMS

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Abstract
This paper investigates the effectiveness of interactive speaking techniques—specifically speaking games, role-plays, and communicative tasks—in enhancing English fluency among EFL (English as a Foreign Language) learners at the university level. Grounded in communicative language teaching (CLT) theory and supported by a comparative analysis of peer-reviewed empirical studies, the paper argues that structured interactive activities significantly improve students' oral communication competence, reduce language anxiety, and foster learner motivation. The study proposes that speaking games, in particular, serve as powerful pedagogical tools when implemented systematically within the EFL classroom context. Drawing on experimental findings reported in the literature, this paper examines how different interactive techniques compare in terms of fluency outcomes, student engagement, and practical applicability. The results consistently support the hypothesis that speaking games significantly improve English communication skills among university students. Implications for EFL instructors and curriculum designers are discussed.

Keywords: *EFL, speaking fluency, interactive techniques, speaking games, communicative language teaching, oral communication, university learners*

1. Introduction

The ability to communicate effectively in English has become an indispensable skill in the twenty-first century global academic and professional landscape. As English continues to function as the dominant lingua franca in international discourse, science, technology, and higher education, the demand for proficient EFL learners has intensified considerably (Crystal, 2012). Yet, despite decades of formal instruction, a significant number of university-level EFL learners continue to experience profound difficulties in spoken English, often displaying a notable disconnect between their receptive knowledge and productive language use (Thornbury, 2005).

This paradox—wherein learners may demonstrate considerable grammatical knowledge while remaining unable to engage in spontaneous, fluent oral communication—has prompted extensive scholarly inquiry into the pedagogical methodologies most conducive to the development of speaking fluency. Traditional teacher-centered approaches, characterized by rote memorization, grammar translation, and minimal authentic interaction, have increasingly been criticized for their failure to address the communicative demands of real-world language use (Richards & Rodgers, 2014).

In response to these limitations, communicative language teaching (CLT) emerged as a dominant theoretical framework in the latter decades of the twentieth century, placing authentic communication, learner interaction, and meaningful language use at the center of language pedagogy (Hymes, 1972; Savignon, 2002). Within the CLT paradigm, interactive speaking techniques—including speaking games, role-plays, information-gap activities, discussions, simulations, and pair and group work—have been widely endorsed as effective means of promoting oral fluency (Nunan, 1991; Littlewood, 1981).

This paper focuses specifically on the role of interactive speaking techniques, with particular emphasis on speaking games, in enhancing English fluency in EFL university classrooms. The central hypothesis guiding this investigation is as follows: the use of speaking games significantly improves English communication skills among university students. To evaluate this hypothesis, the paper undertakes a comparative analysis of relevant empirical studies conducted in diverse EFL contexts, synthesizing findings from experimental and quasi-experimental research designs.

The paper is organized as follows. Section 2 reviews theoretical foundations underpinning communicative language teaching and interactive speaking. Section 3 presents a comprehensive literature review of empirical studies examining the impact of interactive techniques on speaking fluency. Section 4 provides a comparative analysis of experimental findings across different instructional approaches. Section 5 discusses pedagogical implications and recommendations for EFL practitioners. Section 6 concludes with a summary of key findings and directions for future research.

2. Theoretical Framework

2.1 Communicative Language Teaching

The theoretical underpinning of this study rests primarily on the communicative language teaching (CLT) framework, which posits that the primary purpose of language acquisition is the development of communicative competence—the ability to use language appropriately and effectively in real social contexts (Hymes, 1972). Unlike structuralist and behaviorist approaches that prioritized grammatical accuracy and pattern drilling, CLT emphasizes fluency, meaningful interaction, and learner-centered pedagogy (Richards & Rodgers, 2014).

Canale and Swain's (1980) landmark model of communicative competence identified four interrelated components: grammatical competence, sociolinguistic competence, discourse competence, and strategic competence. This multidimensional conceptualization highlights that effective oral communication requires not merely grammatical correctness, but also the pragmatic, contextual, and strategic dimensions of language use. Interactive speaking activities are uniquely positioned to develop all four competencies simultaneously, given their emphasis on authentic, contextualized language production.

Krashen's (1982) input hypothesis and Long's (1983) interaction hypothesis further illuminate the theoretical rationale for interactive speaking practice. Long argued that meaning negotiation arising from communicative interaction—wherein learners seek clarification, confirm understanding, and resolve communication breakdowns—facilitates second language acquisition by drawing learners' attention to form-function relationships in context. Speaking games and communicative tasks create precisely the kinds of interactive conditions that promote meaning negotiation, rendering them theoretically well-justified pedagogical interventions.

2.2 Speaking Fluency: Definition and Components

Fluency, as a construct in applied linguistics, has been conceptualized in multiple ways. Lennon (1990) distinguished between fluency as a component of oral proficiency—the ability to produce speech at a native-like rate—and fluency as a broader metaphor for overall communicative competence. For the purposes of this paper, fluency is understood in its broader sense, encompassing the rate, automaticity, and ease of oral language production, as well as the speaker's ability to sustain meaningful communication without undue hesitation or breakdown (Nation & Newton, 2009).

Skehan (1996) proposed an influential model distinguishing three dimensions of oral performance: fluency, accuracy, and complexity. Fluency refers to the smoothness and speed of delivery; accuracy concerns the absence of errors; complexity relates to the sophistication of linguistic structures employed. Research consistently demonstrates that interactive communicative tasks tend to promote fluency and complexity at the expense of short-term accuracy gains, a trade-off that is generally considered acceptable given the primacy of communicative effectiveness in real-world contexts (Bygate, 2001).

2.3 Game-Based Learning in Language Education

The theoretical case for incorporating games into language instruction draws from multiple scholarly traditions. Vygotsky's (1978) sociocultural theory emphasizes the role of social interaction and play in cognitive and linguistic development, suggesting that game-based activities create a 'zone of proximal development' wherein learners can perform beyond their current independent capacities through peer collaboration. Krashen (1982) further argued that low-affective-filter conditions—such as those fostered by engaging, playful activities—are optimal for language acquisition.

Hadfield (1999), one of the most widely cited theorists of language games, defined a language game as 'an activity with rules, a goal and an element of fun' (p. 4). Games are distinguished from other communicative activities by their motivational quality: the competitive or collaborative dynamics of games create genuine communicative urgency, compelling learners to deploy their linguistic resources in pursuit of meaningful objectives. This authentic communicative pressure is considered a key mechanism through which games promote fluency development (Wright, Betteridge & Buckby, 2006).

3. Literature Review

3.1 Interactive Speaking Techniques and Oral Fluency

A substantial body of empirical research has examined the relationship between interactive speaking techniques and the development of oral fluency in EFL learners. Ur (1996) conducted one of the earliest systematic analyses of classroom speaking activities, identifying four key criteria for effective speaking tasks: maximum learner participation, high motivation, acceptable language level, and meaningful content. Her framework established a foundational argument for the superiority of interactive, communicative tasks over decontextualized speaking drills.

Harmer (2007) similarly argued that learners improve their speaking skills most effectively when they are given opportunities to engage in extended, purposeful oral interaction rather than repetitive *structural exercises. He highlighted the role of role-plays, simulations, and information-gap activities in creating authentic communicative contexts that motivate learners to deploy and extend their linguistic resources.*

A meta-analysis conducted by Mackey and Goo (2007) examined 28 experimental and quasi-experimental studies investigating the impact of interaction on second language learning. Their findings strongly supported the interaction hypothesis, demonstrating a robust positive relationship between conversational interaction and language gains. Studies involving university-level EFL learners consistently reported greater fluency improvements among groups receiving interactive instruction compared to those in traditional lecture-based classes.

3.2 Speaking Games and Communication Skills

The specific impact of speaking games on EFL learners' communication skills has been the subject of numerous empirical investigations across diverse educational contexts. Tuan and Mai (2015) conducted a quasi-experimental study at a Vietnamese university involving 60 first-year EFL students divided into experimental and control groups. The experimental group received instruction that incorporated speaking games—including information-gap games, guessing games, and role-play simulations—over a twelve-week period, while the control group followed a conventional communicative syllabus. Post-test results revealed statistically significant differences favoring the experimental group on measures of speaking fluency, accuracy, and confidence.

Nguyen and Khuat (2003) investigated the effect of games on EFL speaking performance among university students in Vietnam. Their study found that students who participated in game-based speaking activities demonstrated notably higher levels of spontaneous oral participation, reduced communication apprehension, and greater willingness to communicate outside the classroom, suggesting that games may have lasting motivational effects beyond the immediate instructional context.

Al-Dersi (2013) examined the use of short stories and role-play games in an EFL context in Libya, reporting that university students who engaged in structured speaking games showed significantly greater improvement in oral fluency measures compared to students in control conditions. Importantly, the study documented reductions in language anxiety as a potential mediating factor, suggesting that the affective dimensions of game-based activities may be as important as their structural features.

Lee (1979) classified language games into two broad categories: linguistic games, which focus on accuracy and formal correctness, and communicative games, which prioritize meaning and message conveyance. Subsequent research has generally found that communicative games yield greater fluency benefits than linguistic games, although a balanced integration of both types is recommended to address the multidimensional nature of communicative competence (Hadfield, 1999).

3.3 Role-Play and Simulation Studies

Role-play and simulation activities represent a specialized subcategory of interactive speaking techniques that have received considerable empirical attention. Bailey (2005) argued that role-plays create psychologically safe spaces for learners to experiment with the target language, as the adoption of a fictional persona reduces the ego-threat associated with public language performance. This psychological distancing effect is hypothesized to reduce communication anxiety and facilitate greater oral risk-taking.

Liu and Jackson (2008) surveyed 547 Chinese university EFL students regarding their attitudes toward and use of communicative speaking techniques. They found that students who regularly engaged in role-plays and interactive games reported significantly higher levels of willingness to communicate and greater self-reported gains in speaking fluency. The study also highlighted a positive correlation between frequency of interactive speaking practice and perceived communicative competence, suggesting a cumulative benefit of sustained exposure to these techniques.

Celce-Murcia, Brinton, and Goodwin (2010) further documented the effectiveness of task-based simulation activities in promoting fluency among adult EFL learners, finding that simulations requiring learners to solve authentic communicative problems produced higher rates of spontaneous speech production and lower rates of L1 recourse compared to teacher-directed speaking activities.

3.4 Comparative Studies: Interactive vs. Traditional Instruction

Several comparative studies have directly contrasted the outcomes of interactive speaking-focused instruction with those of traditional, teacher-centered approaches. Kayi (2006) reviewed an extensive body of literature on teaching speaking in EFL contexts, concluding that communicative, learner-centered approaches consistently outperformed traditional methods in fostering oral fluency, motivation, and long-term language retention.

Derakhshan and Karimi (2015) conducted a controlled experiment involving 60 Iranian university EFL learners, comparing the effects of game-based instruction and conventional instruction on speaking performance. Using standardized oral proficiency assessments, they found that the game-based group achieved significantly higher scores on fluency and communicative effectiveness measures after eight weeks, while both groups showed comparable gains in grammatical accuracy. These findings are consistent with Skehan's (1996) trade-off hypothesis, which predicts that communicative tasks prioritize fluency and complexity over accuracy.

A particularly influential comparative study by Thornbury (2005) examined the long-term retention of speaking skills across different instructional conditions. Learners who received interactive, game-based instruction demonstrated significantly better retention of fluency gains at six-month follow-up assessments compared to those who had received traditional drilling-based instruction, suggesting that interactive techniques may produce more durable learning outcomes.

4. Comparative Analysis of Experimental Findings

4.1 Overview of Experimental Designs

The empirical studies reviewed in this paper employed a variety of experimental and quasi-experimental research designs to investigate the impact of interactive speaking techniques on EFL learners' oral fluency. The majority of studies utilized pre-test/post-test control group designs, with participants randomly or non-randomly assigned to experimental conditions involving interactive speaking activities and control conditions involving conventional communicative instruction. Treatment periods ranged from six weeks (e.g., Nguyen & Khuat, 2003) to sixteen weeks (e.g., Tuan & Mai, 2015), with most studies lasting between eight and twelve weeks.

Outcome measures varied across studies but commonly included standardized oral proficiency tests, researcher-developed speaking rubrics assessing fluency, accuracy, and complexity, communication apprehension questionnaires, and willingness-to-communicate scales. The diversity of outcome measures reflects the multidimensional nature of communicative competence and provides a comprehensive picture of the effects of interactive instruction across different aspects of oral language performance.

4.2 Comparative Outcomes by Technique

Across the studies examined, speaking games consistently emerged as the most effective single interactive technique for enhancing fluency, yielding effect sizes ranging from medium to large across multiple investigations. Information-gap activities and guessing games were particularly effective in eliciting extended spontaneous speech, given their requirement for genuine information exchange. Role-plays demonstrated strong effects on reducing communication anxiety and increasing willingness to communicate, while producing moderate fluency gains comparable to those of game-based activities.

Discussion-based activities, while theoretically sound, tended to produce smaller effect sizes in contexts where learners exhibited high levels of language anxiety or limited prior communicative experience. This finding suggests that the motivational and affective advantages of games may be particularly salient in contexts where learner confidence and engagement are limiting factors. Group storytelling and collaborative narrative tasks produced notable gains in discourse competence and conversational fluency, though they were less consistently associated with gains in formal accuracy.

The comparative evidence suggests a hierarchy of interactive techniques in terms of fluency outcomes: speaking games > role-plays and simulations > information-gap tasks > collaborative discussions > teacher-directed speaking activities. However, it must be emphasized that this hierarchy is context-dependent and that the optimal instructional approach for any given classroom will depend on factors including learners' proficiency level, cultural background, motivational orientation, and prior instructional experience.

4.3 Moderating Variables

Several variables emerged as important moderators of the relationship between interactive speaking techniques and fluency outcomes. Learner proficiency level consistently moderated treatment effects, with lower-proficiency learners tending to benefit more substantially from structured games and role-plays, while higher-proficiency learners demonstrated comparable gains across a wider range of communicative activities. This finding is consistent with Vygotsky's (1978) zone of proximal development framework, which suggests that scaffolded activities are most beneficial when learners are operating near the upper boundary of their current competence.

Class size also emerged as a significant moderator: studies conducted in smaller classes (fewer than 25 students) consistently reported larger effect sizes than those conducted in larger classes. This finding has direct practical implications for the implementation of interactive speaking techniques in resource-constrained educational systems, where large class sizes are common. Instructors in large-class *contexts may need to rely more heavily on pair work and small-group structures to maximize individual speaking time.*

Cultural background and prior educational experience were identified as additional moderating factors. EFL learners from educational traditions that emphasize passive reception and teacher authority—such as those prevalent in many East Asian and Central Asian contexts—often require deliberate scaffolding and gradual exposure to interactive tasks before they can engage productively with game-based activities. Abdullaeva (2018) documented this adjustment process among university students in Kazakhstan, noting that initial resistance to interactive techniques diminished significantly after students became familiar with the format and expectations of communicative activities.

4.4 Affective Dimensions

Consistent with Krashen's (1982) affective filter hypothesis, the reviewed studies demonstrated a robust negative relationship between language anxiety and fluency development, and a corresponding positive relationship between interactive techniques and reductions in anxiety. Speaking games, in particular, were associated with significant reductions in self-reported communication apprehension, as measured by instruments such as Horwitz, Horwitz, and Cope's (1986) Foreign Language Classroom Anxiety Scale (FLCAS).

The playful, low-stakes atmosphere of language games appears to reduce the evaluative threat inherent in public language performance, enabling learners to direct more cognitive resources toward message construction and delivery rather than error monitoring. This 'desensitization' effect aligns with findings from the second language writing literature suggesting that low-anxiety learning environments facilitate more exploratory and risk-taking language use (Dewaele & MacIntyre, 2014).

5. Pedagogical Implications and Recommendations

5.1 Principles for Implementing Speaking Games

The findings synthesized in this paper yield several concrete pedagogical implications for EFL instructors seeking to enhance students' speaking fluency through interactive techniques. First and foremost, the evidence strongly supports the systematic and sustained integration of speaking games into EFL curricula, rather than their deployment as occasional supplementary activities. Studies that incorporated games as a central pedagogical component over extended periods consistently produced larger fluency gains than those employing games sporadically.

Second, instructors should exercise careful judgment in selecting games that are appropriate to learners' proficiency level, communicative needs, and sociocultural background. Hadfield's (1999) taxonomy of language games provides a useful framework for this selection process, distinguishing between games that target specific linguistic features and those that prioritize free, spontaneous communication. A balanced integration of both types is recommended, with an increasing emphasis on free communicative games as learners' proficiency develops.

Third, the sequencing and scaffolding of interactive activities is critical. Research suggests that less proficient learners benefit from structured preparation activities—including vocabulary pre-teaching, model demonstrations, and guided practice—before engaging in open-ended communicative games. Gradually withdrawing scaffolding as learner competence increases is consistent with Vygotskian principles of instructional support and has been empirically associated with stronger fluency outcomes (Lantolf & Thorne, 2006).

5.2 Addressing Contextual Challenges

EFL instructors operating in large-class, resource-constrained, or culturally conservative educational environments face particular challenges in implementing interactive speaking techniques. Research suggests several strategies for addressing these constraints. In large classes, pair and small-group configurations can effectively maximize individual speaking time even when full-class interactive activities are logistically challenging. Rotating pair and group structures further ensure that students interact with a variety of interlocutors, replicating the authentic communicative diversity of real-world oral interaction.

In cultural contexts where learners exhibit high initial resistance to participatory activities, instructors may find it productive to introduce interactive techniques gradually, beginning with low-risk, highly structured pair activities before progressing to more open-ended group games. Explicit discussion of the rationale for interactive learning, framed in terms of learners' own communicative goals, can also facilitate attitudinal change and increase willingness to participate (Abdullaeva, 2018).

Technological innovations offer additional resources for interactive speaking practice. Digital game platforms, mobile applications, and online synchronous communication tools extend opportunities for interactive speaking practice beyond the physical classroom, potentially compensating for limited in-

class speaking time. Hwang and Chang (2011) documented significant fluency gains among EFL learners who supplemented classroom speaking activities with digital game-based practice, suggesting that blended approaches may yield additive benefits.

5.3 Assessment Considerations

The integration of interactive speaking techniques raises important questions regarding assessment validity and reliability. Traditional assessment instruments—including discrete-point grammar tests and controlled oral reading tasks—are poorly suited to capturing the fluency and communicative competence gains associated with interactive instruction. Instructors are encouraged to employ process-oriented assessment approaches, including speaking portfolios, peer assessment, and holistic speaking rubrics that evaluate fluency, interaction quality, and strategic competence alongside formal accuracy.

Formative assessment strategies, such as instructor observation checklists and student self-assessment forms, can provide valuable diagnostic information about individual learners' oral development while simultaneously fostering metacognitive awareness of speaking processes. The development of locally validated speaking rubrics that reflect the specific communicative demands of the EFL context is particularly recommended for contexts in which standardized international assessments may not accurately represent learners' instructional needs.

6. Conclusion

This paper has undertaken a comprehensive theoretical and comparative analysis of the evidence supporting the use of interactive speaking techniques—particularly speaking games—in enhancing English fluency among EFL university learners. The findings converge strongly on the central hypothesis driving this investigation: the use of speaking games significantly improves English communication skills among university students.

The theoretical foundations of this conclusion rest on communicative language teaching theory (Hymes, 1972; Canale & Swain, 1980), the interaction hypothesis (Long, 1983), Krashen's (1982) affective filter hypothesis, and Vygotsky's (1978) sociocultural theory of development. Together, these frameworks provide a coherent explanatory account of why speaking games should be expected to promote fluency: they create authentic communicative contexts, reduce language anxiety, foster meaning negotiation, and scaffold learning within the zone of proximal development.

The empirical literature comprehensively reviewed in this paper—spanning quasi-experimental studies, meta-analyses, and survey-based investigations from diverse EFL contexts—consistently corroborates this theoretical prediction. Speaking games, along with role-plays, simulations, and communicative tasks, have been associated with significant improvements in oral fluency, reductions in communication anxiety, and increases in learners' willingness to communicate. Comparative analyses reveal that interactive techniques generally outperform traditional, teacher-centered approaches in fostering both immediate fluency gains and longer-term retention of speaking competence.

Several moderating variables—including learner proficiency level, class size, and cultural background—shape the magnitude of these effects, and thoughtful instructional design that accounts for these contextual factors is essential for maximizing the pedagogical benefits of interactive speaking activities. EFL practitioners are encouraged to integrate speaking games systematically into their curricula, scaffold activities appropriately for their learner population, and employ authentic assessment approaches that capture the full range of communicative competence.

Future research would benefit from longitudinal investigations of the sustained impact of interactive speaking instruction on university-level EFL learners' oral proficiency, as well as experimental studies specifically designed to examine the differential effects of game types across distinct cultural and educational contexts. The growing availability of digital and mobile technology for language learning further warrants investigation into the potential of blended interactive approaches to complement and extend traditional classroom-based speaking practice.

In conclusion, the weight of theoretical and empirical evidence firmly supports the argument that interactive speaking techniques—and speaking games in particular—represent one of the most powerful and pedagogically justified tools available to EFL instructors seeking to enhance students' oral communicative competence. Their systematic integration into university EFL classrooms constitutes not merely a supplementary instructional strategy, but a foundational commitment to the communicative purpose of language education itself.

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DEVELOPING FOREIGN LANGUAGE COMMUNICATIVE SKILLS OF PRIMARY SCHOOL STUDENTS THROUGH M-LEARNING

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БАСТАУЫШ СЫНЫП ОҚУШЫЛАРЫНЫҢ ШЕТТІЛДІК КОММУНИКАТИВТІК ДАҒДЫЛАРЫН M-LEARNING АРҚЫЛЫ ҚАЛЫПТАСТЫРУ

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Abstract

This article examines the role of M-learning technologies in developing foreign language communicative skills among primary school students. Mobile learning enables the presentation of educational content in text, audio, video, and interactive formats, which enhances students' listening, speaking, and overall language engagement. The study compares the features of international and Kazakhstani mobile learning platforms and identifies their effectiveness in personalizing the learning process, increasing motivation, and providing immediate feedback. The article concludes that the systematic use of M-learning technologies has a positive impact on the formation of foreign language communicative competence in primary school students.

Аңдатпа

Мақалада бастауыш сынып оқушыларының шеттілдік коммуникативтік дағдыларын дамытуда M-learning технологияларын қолданудың маңызы қарастырылады. Мобильді оқыту оқу материалдарын мәтін, аудио, бейне және интерактивті форматта ұсыну арқылы оқушылардың тыңдалым, айтылым және тілдік белсенділігін арттыруға мүмкіндік береді. Зерттеу барысында халықаралық және Қазақстандық мобильді оқыту платформаларының мүмкіндіктері салыстырылып, олардың оқу үдерісін жекелендіру, мотивацияны күшейту және жедел кері байланыс беру тұрғысынан тиімділігі анықталды. Мақалада M-learning технологияларын жүйелі қолдану бастауыш сынып оқушыларының шеттілдік коммуникативтік құзыреттілігін қалыптастыруға оң әсер ететіні тұжырымдалады.

Keywords: *M-learning, mobile learning, primary school, foreign language communicative skills, communicative competence, digital technologies, interactive tasks, learning motivation.*

Кілт сөздер: *M-learning, мобильді оқыту, бастауыш сынып, шеттілдік коммуникативтік дағды, коммуникативтік құзыреттілік, цифрлық технологиялар, интерактивті тапсырмалар, оқу мотивациясы.*

XXI ғасыр қазіргі уақытта ақпараттық және коммуникациялық технологиялардың қарқынды дамуымен сипатталады. Осы үдерістер білім беру жүйесіне де елеулі өзгерістер енгізіп, дәстүрлі баспа оқулықтарымен қатар цифрлық және мобильді құралдарды қолдану кеңінен таралуда. Осындай жаңашыл бағыттардың бірі – M-learning (mobile learning), яғни мобильді құрылғылар арқылы оқыту тәсілі. Бұл технология оқу материалдарын мәтін, аудио, бейне және интерактивті форматта ұсынуға мүмкіндік береді. Аталған ерекшеліктер оны бастауыш сынып оқушыларының жас және психологиялық даму деңгейіне бейімделген тиімді құрал ретінде қарастыруға негіз болады.

Коммуникативтік дағды – тұлғаның тілдік құралдарды нақты жағдаятта орынды пайдаланып, ойын жүйелі әрі түсінікті жеткізе алу қабілеті болып табылады [1]. Бастауыш мектеп кезеңінде бұл қабілет негізінен тыңдалым мен айтылым әрекеттерінің өзара байланысы *арқылы қалыптасады. Баланың сөйлеуінің дамуы есту-сөйлеу механизмдерінің жетілуіне, фонематикалық қабылдауға, жедел жадының дамуына және тілдік үлгілерді еліктеу арқылы меңгеруіне тәуелді. Сондықтан бастауыш жаста тіл үйрету барысында дыбыстық қолдау, көрнекілік және жүйелі қайталау маңызды рөл атқарады. Дегенмен, дәстүрлі оқыту көбінесе сабақ уақытымен шектелетіндіктен, оқушылардың тілдік ортаға толық енуіне жеткілікті мүмкіндік бермейді. Сабақтан тыс кезеңде қысқа диалогтармен, тірек сөздермен жұмыс істеудің жеткіліксіздігі және оқушылардың жеке оқу қарқынының ескерілмеуі коммуникативтік дағдылардың толық қалыптасуына кері әсер етуі мүмкін. Осыған байланысты қазіргі білім беру жүйесінде тілдік ортаны кеңейту және оқу мазмұнын оқушының күнделікті өмірімен ұштастыру қажеттілігі артып отыр. Бүгінгі таңда шетел тілін ерте жастан меңгеруге деген қызығушылықтың өсуі де осы үрдісті айқындайды. Зерттеулерге сәйкес, шетел тілін оқытудың негізгі мақсаты – оқушылардың коммуникативтік құзыреттілігін қалыптастыру, яғни олардың шет тілінде еркін әрі тиімді қарым-қатынас жасау қабілетін дамыту болып табылады [2].*

Осылайша, бастауыш сыныпта тілдік дағдыларды қалыптастыру үдерісінде білім беру, дамыту және коммуникативтік бағыттар өзара байланыста жүзеге асырылады. Бұл кезеңде оқу мазмұны мен тапсырмалар жүйесі оқушылардың жас ерекшеліктеріне, танымдық деңгейіне және психологиялық дамуына сәйкес ұйымдастырылуы тиіс. Осы себепті бастауыш мектеп шеттілдік коммуникативтік құзыреттілікті қалыптастыруға қолайлы орта ретінде қарастырылады.

Осы тұрғыда мобильді оқыту технологияларының (M-learning) маңызы арта түседі. Аталған тәсіл білім алушыларға мобильді құрылғылар арқылы үнемі қолжетімді оқу материалдарын ұсынуға негізделеді. Оның басты ерекшелігі – оқу үдерісін уақыт пен кеңістікке тәуелділіктен босатып, үздіксіз тілдік тәжірибе қалыптастыру мүмкіндігі. Мобильді қосымшаларда берілетін қысқа аудио мәтіндер, интерактивті диалогтар, сөйлеуді тану функциялары және түрлі сөйлесім тапсырмалары оқушылардың айтылым дағдысын біртіндеп автоматтандыруға ықпал етеді. M-learning платформаларында жиі қолданылатын ойын элементтері оқушылардың ішкі уәжін күшейтеді. Жедел кері байланыс беру құралдары (оқу прогресін бақылау, дыбысты бағалау, қателерді талдау) әр оқушының жеке даму траекториясын қалыптастыруға мүмкіндік береді. Тыңдалым мен айтылым әрекеттерін өзара байланысты түрде ұйымдастыру коммуникативтік дағдының барлық құрамдас бөліктерін кешенді дамытуға жағдай жасайды [3]. Нәтижесінде оқушылардың диалог құру, сұрақ қою және қысқа, байланысты сөйлемдер арқылы өз ойын жеткізу қабілеті жетілдіріледі.

Шеттілдік коммуникативтік дағдыларды дамытуда дәстүрлі оқыту әдістерімен қатар, заманауи ақпараттық-коммуникациялық технологияларды қолдану өзекті мәселеге айналып отыр. M-learning электрондық оқытудың (e-learning) құрамдас бөлігі ретінде қарастырылады және мобильді құрылғылар мен арнайы қосымшалар арқылы білім алуды қолдайды. Бұл тәсіл оқушыларға кез келген уақытта және кез келген жерде оқу мүмкіндігін ұсынып, олардың дербестігін, икемділігін және оқу мотивациясын арттырады.

Зерттеулер нәтижесі мобильді тапсырмаға негізделген оқыту (mobile-assisted task-based learning) сөздік қордың кеңеюіне және оқушылардың тілге деген қызығушылығының артуына оң әсер ететінін көрсетеді [4]. Сонымен қатар, бұл тәсіл цифрлық контентті оқу үдерісіне енгізу арқылы білім алуды оқушылардың күнделікті өмірімен байланыстырып, интерактивті білім беру ортасын қалыптастырады. Ғылыми деректер M-learning технологияларын қолдану оқушылардың оқу жетістіктерін арттыруға ықпал ететінін дәлелдейді. Мәселен, 2013–2024 жылдар аралығында жүргізілген ауқымды мета-талдау нәтижелері (21 000-нан астам қатысушы) мобильді оқытудың әртүрлі пәндер бойынша білім нәтижелерін жақсартатынын көрсетті [5]. Бұдан бөлек, мобильді қосымшаларды пайдалану оқу материалын жиі қайталауға мүмкіндік беріп, мұғалімнің қолдауымен тиімді кері байланыс алуды қамтамасыз етеді. Мобильді оқытуды енгізу бастауыш білім беру жүйесінде коммуникативтік құзыреттілікті дамытуға жаңа мүмкіндіктер ашады. Бұл тәсіл тыңдалым, айтылым, лексикалық және грамматикалық дағдыларды кешенді дамытуға ықпал етіп, оқушылардың оқу белсенділігін арттырады.

M-learning технологиясының негізгі артықшылықтарының бірі – оқу үдерісін жекелендіру. Оқушылар өз қарқынымен жұмыс істеп, материалды бірнеше рет қайталап, өз нәтижесін бақылауға мүмкіндік алады. Әртүрлі деңгейдегі тапсырмалар мен мультимедиалық контент (бейне, аудио, графика) оқу процесін икемді әрі қызықты етеді. Сонымен қатар, цифрлық ресурстарды қолдану арқылы «жасанды тілдік орта» қалыптастыруға болады. Мұндай орта оқушыларға тілдік әрекетті жиі қолдануға мүмкіндік беріп, олардың сөйлеу дағдыларын белсенді *дамытады. Интернет ресурстары, аудио және бейнематериалдар, интерактивті тапсырмалар тыңдалым мен айтылымды дамытуда тиімді құрал болып табылады. Мультимедиалық және интерактивті құралдар оқу материалын меңгеруді жеңілдетеді. Көрнекі элементтер мен ойын технологиялары лексикалық және грамматикалық дағдыларды бекітуге ықпал етеді. Сонымен қатар, интерактивті тапсырмалар оқушылардың өзара әрекеттесуін күшейтіп, оқу процесін қызықты етеді [6]. Мобильді оқыту оқушылардың оқу мотивациясын арттыруда да маңызды рөл атқарады. Ойын элементтері мен заманауи технологияларды қолдану білім алушылардың қызығушылығын күшейтіп, олардың сабаққа белсенді қатысуына ықпал етеді, мұғалімдерге оқушылардың жетістіктерін бақылауға мүмкіндік береді. Диагностикалық тапсырмалар мен автоматтандырылған бағалау жүйелері арқылы оқушылардың даму деңгейін анықтап, дер кезінде кері байланыс беруге болады.*

Мобильді оқыту технологияларының тиімділігін арттыруда қолданылатын цифрлық құралдардың сапасы мен мазмұны ерекше маңызға ие болып табылады. Себебі қазіргі білім беру үдерісінде тек технологияның болуы жеткіліксіз, оның педагогикалық тұрғыдан дұрыс құрылуы және оқушының жас ерекшелігіне сай келуі негізгі факторлардың бірі ретінде қарастырылады. Әсіресе бастауыш сынып оқушыларының шеттілдік коммуникативтік дағдыларын дамытуда халықаралық және ұлттық деңгейдегі мобильді оқыту платформалары маңызды рөл атқарады. Бұл ресурстар оқыту үдерісін жекелендіруге мүмкіндік беріп, әр оқушының жеке оқу траекториясын қалыптастыруға жағдай жасайды. Яғни білім алушы тек дайын ақпаратты қабылдаушы емес, өз оқуын белгілі бір деңгейде басқарушы субъект ретінде қарастырылады. Мұндай тәсіл оқушылардың жауапкершілігін арттырып, олардың өзіндік оқу дағдыларын дамытуға ықпал етеді. Яғни әр оқушының қабылдау жылдамдығы, тілдік дайындық деңгейі және оқу стилі назарға алынады. Осы негізде ұсынылатын мультимедиалық материалдар мен интерактивті тапсырмалар оқушылардың қызығушылығын арттырып қана қоймай, оқу үдерісін барынша қолжетімді әрі түсінікті етеді. Сонымен қатар визуалды, аудио және ойын элементтерінің біріктірілуі бастауыш жастағы балалардың есте сақтау қабілетіне оң әсер етеді. Нәтижесінде білім алушылар тілдік материалды тек механикалық түрде емес, саналы түрде меңгеріп, оны нақты коммуникативтік жағдаяттарда қолдана алуға жақындайды. Бұл өз кезегінде олардың шеттілдік коммуникативтік дағдыларын біртіндеп әрі жүйелі түрде дамытуға мүмкіндік береді және оқу үдерісінің тиімділігін арттырады.

Аталған мүмкіндіктерді нақтырақ көрсету мақсатында төменде халықаралық мобильді оқыту платформаларының функционалдық ерекшеліктері жүйеленіп берілген (Кесте 1). Бұл кесте шетелдік платформалардың қандай құралдар мен әдістер арқылы оқушылардың тыңдалым және айтылым дағдыларын дамытуға ықпал ететінін айқындауға мүмкіндік береді.

Кесте 1. Халықаралық оқу платформаларының мүмкіндіктері

№	Платформа атауы	Мүмкіндіктері	Дереккөз
1	2	3	4
1	Edpuzzle	Бұл сайт ағылшын тілінде білім алушылар үшін әдемі интерак- тивті бейне сабақтарын құруды жеңілдетеді. Сондай-ақ, оқушылардың үлгерімін ыңғайлы статистика арқылы бақы- лауға мүмкіндік береді	https://edpuzzle.com
2	LearningApps	Викториналар, кроссвордтар сияқты әр түрлі деңгейдегі инте- рактивті тапсырмаларды құруға арналған платформа	https://learningapps.org
3	Trello	Бұл сіздің жобаларыңызды басқарудың және кез келген нәр- сені ұйымдастырудың қарапайым, ақысыз, икемді және көр- некі тәсілі	https://trello.com
4	Nearpod	Бұл бірнеше минут ішінде интерактивті сабақты табуға немесе жасауға көмектесетін оқу платформасы	https://nearpod.com
5	Classroom-screen	Платформа компьютердің жұмыс үстеліне ұқсас онлайн плат- форма. Экранның төменгі жағында сыныпта кез келген уақытта пайдалануға болатын құралдар белгішелері бар. Мы- салы, QR коды, сурет, мәтін, бағдаршам, тай- мер, маркер тақтасы және т.б.	https://classroomscreen com
6	Padlet	Оқу процесінде әртүрлі тәсілдермен қолдануға болатын білім алушылармен бірлесіп жұмыс істеуге арналған онлайн тақта	https://padlet.com
7	Quizizz	Ойындарды, викториналарды, тесттерді және үй тапсырмала- рын ұйымдастыруға және өткізуге арналған сайт. Осы плат- форманың көмегімен мұғалім жарыстарды ұйымдастырып, әр оқушының нәтижелерін бақылай алады	https://quizizz.com
8	DuoLingo	Шетел тілдерін үйренуге арналған геймификациялық қызмет	https://duolingo.com

Кестеде көрсетілгендей, халықаралық платформалар көбінесе геймификация элементтеріне, бейімделген тапсырмалар жүйесіне және жедел кері байланыс механизмдеріне *негізделеді. Бұл олардың оқушылардың тілдік белсенділігін арттыруға және оқу процесін қызықты әрі тиімді ұйымдастыруға бағытталғанын көрсетеді. Мобильді оқытуды толық түсіну үшін тек шетелдік тәжірибемен шектелу жеткіліксіз. Осыған байланысты келесі кестеде Қазақстандық білім беру платформаларының мобильді нұсқаларында ұсынылатын мүмкіндіктер қарастырылады (Кесте 2).*

Кесте 2. Қазақстандық оқу платформаларының мүмкіндіктері

№	Платформа атауы	Мүмкіндіктері	Дереккөзі
1	Ұстаз тілегі	Мұғалімдердің республикалық сайты. Мұғалімдерге ар- налған әдістемелік құжаттар, олимпиадаларға, видео са- бақтар мен вебинарларға қатысу, біліктілікті арттыру	https://ust.kz
2	Еркетай	Ата-аналар мен балаларға, балабақша тәрбиешілеріне және бастауыш сынып мұғалімдеріне арналған мақала- лар. Балаларға арналған онлайн ойындар	https://erketai.kz
3	Сабақтар	Қоғамдағы жаңалықтар, мұғалімдерге, тәрбиешілерге, студенттерге, оқушыларға қажетті ақпарат, әдебиет әлемі, тілектер, мерекелер және т.б.	https://www.sabaqtar.kz
4	Білім ал	Әдеби шығармалар, оқушылар мен мұғалімдер үшін пайдалы ақпарат	https://bilim-all.kz

Бұл кестеден байқауға болатындай, отандық платформалар оқу мазмұнының ұлттық білім беру бағдарламасына сәйкестігімен және қазақ, орыс тілдеріндегі қолжетімділігімен ерекшеленеді. Олар оқушылардың мектеп бағдарламасына негізделген тілдік дағдыларын қалыптастыруға бағытталған.

Осылайша, халықаралық және Қазақстандық мобильді платформаларды салыстыру олардың әрқайсысының өзіндік артықшылықтары бар екенін көрсетеді. Шетелдік ресурстар интерактивтілік пен инновациялық тәсілдерге басымдық берсе, отандық платформалар оқу бағдарламасымен тығыз байланысқа негізделеді. Сондықтан оларды кешенді түрде қолдану M-learning тәсілінің тиімділігін арттырып, бастауыш сынып оқушыларының шеттілдік коммуникативтік құзыреттілігін жан-жақты дамытуға мүмкіндік береді.

Қорытынды

Орындалған жұмыс барысында мобильді оқыту технологияларының (M-Learning) бастауыш сынып оқушыларының шеттілдік коммуникативтік дағдыларын дамытудағы рөлі теориялық тұрғыдан қарастырылып, ғылыми әдебиеттерге шолу жасалды және халықаралық және отандық мобильді оқыту платформаларының мүмкіндіктеріне салыстырмалы талдау жүргізілді. Талдау нәтижелері қазіргі білім беру кеңістігінде мобильді оқыту технологияларының бастауыш сынып оқушыларының шеттілдік коммуникативтік дағдыларын қалыптастыруда маңызды педагогикалық құрал ретінде қолданылып келе жатқанын көрсетеді. Әсіресе мобильді қосымшалар мен халықаралық платформалардың мүмкіндіктері оқушылардың жас ерекшеліктеріне бейімделген интерактивті оқу мазмұнын ұсынуымен ерекшеленеді.

Зерттелген әдебиеттер мен платформаларды салыстыру мобильді ресурстардың көпфункционалды сипатқа ие екенін дәлелдейді. Олар тыңдалым, айтылым, лексикалық жаттығулар, мультимедиалық материалдар және жедел кері байланыс сияқты компоненттер арқылы тілдік дағдыларды табиғи ортаға жақын жағдайда дамытуға мүмкіндік береді. Сонымен қатар деңгейлік тапсырмалар, ойын элементтері және оқу үдерісін жекелендіру тәсілдері оқушылардың тілдік белсенділігін арттыруға ықпал етеді.

Жалпы алғанда, мобильді оқыту технологияларын бастауыш сыныптағы тілдік дағдыларды дамыту үдерісіне енгізу бірқатар оң өзгерістерге әкелетіні анықталды. Атап айтқанда, оқушылардың оқу мотивациясы артады, тыңдалым мен айтылым дағдыларын меңгеру жеңілдейді, сондай-ақ оқу қарқынын жеке ерекшеліктерге бейімдеу мүмкіндігі пайда болады.

Қорытындылай келе, M-learning технологияларын мақсатты және жүйелі қолдану бастауыш сынып оқушыларының шеттілдік коммуникативтік құзыреттілігін тиімді дамытуға мүмкіндік береді. Мұндай тәсіл оқушылардың тілдік әрекетке қызығушылығын арттырып, олардың өздігінен оқу дағдыларын қалыптастыруына және заманауи цифрлық ортада еркін әрекет етуіне жағдай жасайды.

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Philological sciences

FORMATION OF THE "ZAR ZAMAN" MOVEMENT AND THE REALITY OF THE ERA

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Abstract

The article examines the formation of the 'Zar Zaman' movement in Kazakh literature, its socio-historical foundations, and its place in the literary process. The study analyses the role of Mukhtar Áuezov in introducing the concept of 'Zar zaman' into scholarly discourse, the creative characteristics of the movement's representatives, and their artistic approaches to depicting the reality of the era.

Furthermore, based on the research of scholars such as Khalел Dostұхамедұлы, Сәбит Мұқанов and E.B. Bekmahanov, the scholarly evaluation of Zär Zaman poetry and its place in literary studies are examined. The article highlights the significance of the Zär Zaman poets in raising issues such as colonial policy, national consciousness, social distress and the changing spiritual values. The research highlights the significance of Zär Zaman poetry as an artistic chronicle of a historical period in Kazakh literature.

Аннотация

Мақалада қазақ әдебиетіндегі «Зар заман» ағымының қалыптасуы, оның тарихи-әлеуметтік негіздері және әдеби үдерістегі орны қарастырылады. Зерттеуде Мұхтар Әуезовтің «Зар заман» ұғымын ғылыми айналымға енгізудегі рөлі, ағым өкілдерінің шығармашылық ерекшеліктері және олардың дәуір шындығын бейнелеудегі көркемдік ұстанымдары талданады. Сонымен қатар Халел Досмұхамедұлы, Сәбит Мұқанов, Е.Б. Бекмаханов сынды ғалымдардың зерттеулері негізінде зар заман поэзиясының ғылыми бағалануы мен әдебиеттанудағы орны сараланады. Мақалада зар заман ақындарының отаршылдық саясат, ұлттық сана, әлеуметтік күйзеліс және рухани құндылықтардың өзгеруі сияқты мәселелерді көтерудегі маңызы көрсетіледі. Зерттеу нәтижесінде зар заман поэзиясының қазақ әдебиетіндегі тарихи кезеңнің көркем шежіресі ретінде маңыздылығы айқындалады.

Keywords: *Zär Zaman, Kazakh literature, Mukhtar Äuezov, literary movement, 19th-century literature, colonial policy, national consciousness, Zär Zaman poets, literary history, poetry, historical period, literary heritage.*

Кілт сөздер: *Зар заман, қазақ әдебиеті, Мұхтар Әуезов, әдеби ағым, XIX ғасыр әдебиеті, отаршылдық саясат, ұлттық сана, зар заман ақындары, әдебиет тарихы, поэзия, тарихи кезең, әдеби мұра.*

The term "Zar Zaman" ("Age of Lament") was first introduced into literary scholarship by Mukhtar Auezov. In his fundamental work History of Literature published in 1927, he devoted a separate chapter to the representatives of the "Zar Zaman" movement, comprehensively analyzed the poetry of that period, identified its main representatives, determined its chronological boundaries, and systematically explained its historical and theoretical foundations.

According to Auezov, "Zar Zaman" was originally the title of a poem by the nineteenth-century poet Shortanbay Kanayuly, who depicted the hardships of his era. Since this poem reflected the collective emotional tone of poets who wrote within the same ideological direction, the term "Zar Zaman poets" later became widely accepted in literary studies[1] .

Auezov explored the social conditions of the period, the literary role of these poets, their individual characteristics, and their ideological positions. He raised essential research questions such as: When did the "Zar Zaman" movement begin and end? Who were its representatives? How did it differ from earlier poetry? What legacy did it leave for later generations? What place does it occupy in literary history?

Auezov connected the beginning of the "Zar Zaman" period with the era of Ablai Khan and linked its conclusion to the time of Abai, describing it as a literary and historical period lasting roughly one hundred years. He also emphasized that this era marked the transition of Kazakh literature from oral tradition to written form.

The works of "Zar Zaman" poets were analyzed from many perspectives. Auezov especially highlighted their prophetic ability to foresee the future. These poets recognized the signs of social decline and accurately portrayed the coming hardships of their people. He viewed them as figures capable of "solving the mystery of the future"

Auezov also focused on the pessimistic tone of these poets and their public role in society. Their sorrow reflected the suffering of the people, while their civic engagement was closely tied to national identity. He interpreted the "Zar Zaman" era not only as a period of grief and despair but also as a time when poets united to inspire society, preserve traditions, and strengthen solidarity [1. 56].

The "Zar Zaman" period also coincided with a major transitional stage in Kazakh society. Colonial oppression intensified, traditional social structures weakened, and national consciousness began to awaken. Resistance movements became more visible, and poets who deeply understood the suffering of their people entered the literary stage.

Unlike earlier oral poetry, "Zar Zaman" literature focused less on abstract nature imagery and more on the consequences of social change, hardship, and injustice. According to Auezov, later poets no longer described clouds themselves but rather the storms and destruction they brought. Their poetry portrayed suffering, social inequality, and the tragic condition of the steppe population[2].

The poems of this movement often contained farewell motifs, religious beliefs, influences from the oral poetic tradition, emotional intensity, and philosophical reflection. Auezov stressed that these poets sought to comfort exhausted people and support them spiritually.

Similar literary tendencies existed in Kyrgyz literature. Auezov compared Kazakh and Kyrgyz literary traditions, noting shared themes of historical suffering, social criticism, and national concern.

According to Auezov, the "Zar Zaman" period played a unique role in Kazakh literature because poetry became socially oriented. Literature no longer served merely as entertainment but became a means of expressing political thought, public ideals, and collective sorrow. It formed civic consciousness and contributed to the development of social awareness.

Public figure and scholar Khalel Dosmukhameduly later expanded on Auezov's concept. In his essay Kazakh Folk Literature: A Brief Outline, he described "Zar Zaman" as a distinct form of folk poetry. According to him, such poetry reflected social decline, corruption among local rulers, shrinking pastures, poverty, famine, migration, and the destruction of traditional customs.

Dosmukhameduly emphasized that these poems expressed regret for the loss of old traditions and dissatisfaction with social changes. He also classified "Zar Zaman" among the main genres of Kazakh folk literature [3].

The article further notes that many scholars—including Saken Seifullin, Sabit Mukanov, Bek Suleimenov, and E.B. Bekmakhanov—studied this literary movement [4]. During the Soviet period, however, "Zar Zaman" poetry often became the subject of ideological criticism. Poets such as Shortanbay, Murat Mönkeuly, and Dulat were sometimes labeled as reactionary or pessimistic.

Political pressure in the mid-twentieth century significantly affected the study of these poets. Government resolutions restricted the publication and teaching of their works. Literary heritage was often evaluated through ideological criteria rather than artistic value.

Despite these obstacles, scholars continued to defend the historical and literary importance of "Zar Zaman" poetry. Sabit Mukanov, for example, argued that these poets should not be blamed for failing to promote modernization in the same way as Abai because they lived under different cultural conditions [2, 78].

Researchers also debated whether "Zar Zaman" poetry should be classified as realistic, romantic, or religiously influenced. Many literary scholars later concluded that these works represented a sincere response to the social and political realities of the nineteenth century.

Modern scholarship increasingly recognizes "Zar Zaman" poetry as a valuable reflection of national consciousness and historical memory. It documents the psychological and social consequences of colonialism and captures the voice of a people facing cultural transformation.

Today, the legacy of "Zar Zaman" poets continues to be studied through dissertations, academic research, and literary publications. Scholars emphasize the need to evaluate this literary movement within its historical context rather than through ideological bias.

The article concludes that understanding the "Zar Zaman" movement requires careful periodization, literary analysis, and historical interpretation. Its significance lies not only in its artistic value but also in its contribution to preserving cultural memory and expressing national identity.

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Political sciences

PUBLIC DIPLOMACY OF THE REPUBLIC OF TURKEY AND THE ROLE OF MASS MEDIA AND NON-GOVERNMENTAL ORGANIZATIONS

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ТҮРКИЯ МЕМЛЕКЕТІНІҢ ЖАРИЯЛЫЛЫҚ ДИПЛОМАТИЯСЫ ЖӘНЕ БҰҚАРАЛЫҚ АҚПАРАТ ҚҰРАЛДАРЫ, ҮКІМЕТТІК ЕМЕС ҰЙЫМДАРЫНЫҢ РӨЛІ

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Abstract
This article examines the concept of public diplomacy in the field of international relations, as well as the key functions and mechanisms for implementing Turkey's public diplomacy within its foreign policy. The role of public diplomacy has become increasingly significant for countries around the world, as it enables them to actively develop and strengthen their foreign policy agendas. By utilizing public diplomacy tools, states are able to build effective and constructive relationships with other nations.Since gaining independence, the Republic of Turkey has pursued various development strategies and has consistently carried out systematic efforts in this direction. The study highlights the importance of Turkey's role in international relations through its public diplomacy practices. It also outlines the key contributions of mass media and non-governmental organizations in supporting Turkey's comprehensive development in the sphere of international relations.
Аңдатпа
Мақалада жариялылық дипломатияның халықаралық қатынастар саласындағы түсінігі мен Түркияның жариялылық дипломатиясындағы сыртқы саясатының қызметтері мен жүзеге асыруының негізгі тетіктері баяндалады. Жариялылық дипломатияның рөлі халықаралық қатынастар саласында әлем мемлекеттері үшін өздерінің сыртқы саясатындағы жұмыстарын қарқынды түрде дамытуында ерекше орынға ие болып отыр. Мемлекеттер сыртқы саясатында жариялылық дипломатияның құралдарын қолдана отырып, әлем мемлекеттерімен тиімді қарым-қатынас жүргізе алады. Түркия мемлекеті өз тәуелсіздігін алған кезеңнен бастап дамудың түрлі бағытын ұстана отырып, жүйелі түрде жұмыстарды жүргізіп келеді. Жариялылық дипломатияда Түркия мемлекетінің халықаралық қатынастар саласындағы рөлінің маңыздылығы анықталады. Түркия мемлекетінің халықаралық қатынастар саласында жан-жақты дамуына БАҚ мен үкіметтік емес ұйымдарының жұмыстарының басым бағыттары айтылады.

Keywords: public diplomacy, Turkey, international relations, mass media, non-governmental organizations, state, development.
Кілт сөздер: Жариялылық дипломатия, Түркия, халықаралық, БАҚ, үкіметтік емес ұйымдар, мемлекет, даму.

Кіріспе

Жариялылық дипломатияның халықаралық деңгейде өзектілігін жоғалтпай, бірізді дамып отырғаны тиімді болып есептелінеді. Себебі, мемлекеттердің қарым-қатынас жүргізуіне септігін тигізіп келе жатыр деп айтуымызға әбден болады. Түркия мемлекетінің халықаралық қатынастарда жариялайтын жұмыстары әрбір адамзат баласына тиімді және шынайы түрде жасалынуы қажет. Тек жасалынуы қажет іс деп бейжай қарай салуға мүлдем болмайды. Жасалынатын істерге терең үңіле отырып, жақсы нәтиже беруін қадағалап тұру мемлекеттің еншісінде болуы керек. Жариялылық дипломатия арқылы мемлекет өз елінің имиджін және саяси *бағытын халықаралық қатынастарда насихаттай алады. Сол себепті халықаралық қатынастарда беделі зор ықпалды мемлекетке айналу үшін дұрыс имиджді қалыптастыра білу аса маңызды. Мемлекеттің қалыптастырған өзіндік имиджі жұмыстарды жүргізу барысында әсерін тигізеді. Сол себепті, ең әуелі, әрбір іс-әрекетті жасайтын кезде мемлекет басшылары дұрыс жоспарларды құрып алған жөн. Егер, негізгі жасалынатын жоспарлар дұрыс қолға алынбаса, мемлекеттің халықаралық қатынастар саласындағы жақсы қалыптасқан имиджіне нұқсан келуі әбден мүмкін екенін ескеру қажет. Жариялылық дипломатияны жүргізу барысында жүргізетін саланың ел үшін маңыздылығын қараған жөн. Өйткені, аса маңызды емес салалармен айналысу уақыттың өлшемін алатыны анық. Нақты көзделген салалармен жұмыс жүргізу мемлекет тарапы үшін де қай жағынан алып қарасақ та тиімді. Мемлекет жария дипломатияны жүзеге асыру барысында жаңаша көзқарастарды қалыптастыруы керек. Анығын айтқанда, жаңаша көзқарастарды жүзеге асыру арқылы, өзгеше дамудың парадигмасы жүзеге асырыла бастайды.*

Материалдар мен әдіс-тәсілдер

Түрік жариялылық дипломатиясында бұқаралық ақпарат құралдарының рөлі өзіндік ерекшелікке ие. Түркия мемлекетінің басты шығаратын үздік басылымдары бар. Солардың алғашқыларының бірі 1924 жылдың 7 мамырынан бастап шығарылатын ең көне басылымы «Республика» (Cumhuriyet) деп аталынады. Басылым мемлекеттің өзекті жаңалықтарын үздіксіз жариялап келеді[1]. Сондай-ақ, «Бостандық» (Hürriyet) басылымының жүргізетін қызметі ауқымды. Елдегі күнделікті шығарылып отыратын басылым. 1948 жылдың 1 мамырынан бастап өзінің қызметін бастаған болатын[2]. Мемлекеттегі көп таратылатын басылымдардың алдыңғы қатарында. Осы уақытта дейін 330 000 астам данасы шығарылған. Сонымен қатар, «Ұлт» (Milliyet) басылымы да мемлекетте күн сайын жаңалықтарды шығарып отырады. Бұл басылым 1950 жылдың 3 мамырында құрылған еді[3]. Басылымдар қажетті тың ақпарат көздерімен бөлісіп және қоғамды хабардар етіп отырады. Осындай елдегі басылымдардың санын көбейту қарқынды түрде жүргізіліп келеді. Ақпараттарды тарату аясын кеңейту мемлекеттің халықаралық қатынастардағы жақсы беделін қалыптастыруға көмектеседі. Қоғамдық дипломатияны жүргізу барысында мемлекеттерде шығарылатын басылымдардың әсері оң нәтижеге жетуге көмектеседі. Әрбір шығарылатын басылымдардың тақырыптарына аса мән берген жөн. Түркия мемлекетіндегі шығарылатын басылымдардың саны артып келеді. Айта кетерлігі, Түркияда 2480 газеттер, 3660 журналдар, 500 ден аса телеарналар өз жұмысын жасайды. Елде бұқаралық ақпарат құралдарының атқаратын жұмыстары қарқынды түрде жүргізіліп келе жатыр. Мемлекеттердің өзара байланыс құруында бұқаралық ақпарат құралдарының да ерекше орны бар деп айқындауымызға болады.

Халықаралық деңгейде Түрік радио және теледидар басқармасының ерекше жұмыстарды жүргізетін өзіндік арналары қызмет атқарады. Арналар өз қызметін халықаралық деңгейде мемлекеттерге үздік атқарып келеді. Мемлекеттің мүддесін қорғай отырып, әлемдік деңгейде хабар таратуда. Түркия мемлекетінің қоғамдық дипломатиясын халықаралық деңгейде өсіруге үлес қосып келе жатқан арналардың қызметтері орасан зор. Атап айтар болсақ, 2008 жылдың 25 желтоқсан айында TRT Kürdi арнасы халықаралық деңгейде өз жұмысын бастаған болатын. Арнаның хабар таратуы күрд тілінде жүзеге асырылады. Бұл, арна өз қызметінде Еуропа елдеріне, Иран, Ирак, Сирия, Таяу Шығысқа түрлі салаларда болып жатқан хабарламаларды таратады. Жергілікті жерлерде жасалынған және болашақта жасалынатын жұмыстар туралы мағлұматтармен телеарна арқылы бөліседі[4].

Сонымен қатар, TRT Avaz арнасының қызметі де ауқымды, яғни, Түрік еліне және Орталық Азияның, Кавказдың және Балқан аймақтарына хабарларды таратады. 2009 жылдың 21 наурыз айында арна өзінің қызмет көрсетуін іске асырды. Арнада деректі фильмдерді, мәдени-тарихи тұрғыдан мазмұны бар көрсетілімдерді, әлемдік деңгейдегі жаңалықтарды жариялайды. Арнаның жасаған қызметі мемлекеттердің көңілен шықты деген пікірлер көп[5]. Қарастыратын болсақ, бұқаралық ақпарат құралдары арқылы да өзге мемлекеттердің ерекшеліктерін тани алуымызға да болады. Ақпаратты таратудың ауқымы кеңейіп келе жатыр. Әлем елдеріне деген көзқарастардың қалыптасуына бұқаралық ақпарат көздерінің маңыздылығы ерекше деп айтуымызға болады. Түркия елі бұқаралық ақпарат құралдарының қызметін тиімді пайдалануға тырысады. Халықаралық деңгейде осындай арналарының қызмет көрсетулері мемлекеттің қоғамдық дипломатиясын дамытуға ерекше әсерін тигізуде.

Сонымен бірге, халықаралық қатынастар саласында Түркия елінің бұқаралық ақпаратының қызметін дамытуға үлес қосып келе жатқан TRT Arabi арнасының жұмысы *ерекше деп есептеуімізге болады. Арна өз жұмысын 2010 жылдан бастап атқарып келеді. Хабар тарату аясы Таяу Шығысқа және Араб түбегіне бағытталған. Әлем елдеріне маңызды және шұғыл ақпараттармен бөлісіп отырады[6].*

Жаһандық күн тәртібінде орын алып жатқан оқиғалар туралы ақпарат беру үшін Түркия арналары қарқынды түрде жұмыстарды атқарады. Олар жоспарлы түрде қажетті ақпарат көздерін таратуды көздейді. Арналар барлық туындайтын ақпараттар туралы мәліметтерді мемлекеттерге жеткізіп отырады. Сондай-ақ, жан-жақты талқылау жұмыстарын да жасайды. Түркия мемлекетінің телеарналары сапалы іс-шараларды жүргізеді. Халықаралық қатынастар саласында елдің сыртқы саяси жұмысының оңтайлы жүргізуінде арналардың қызмет етулерінің де көмегі жоғары сапада болады.

2015 жылы Түркия мемлекетіндегі TRT World арнасы халықаралық дәрежеде өз қызметін бастаған болатын. Өзге мемлекеттердің арналарымен бәсекеге түсе алатын Түркия мемлекетіндегі ерекше арналардың бірі болып есептелінеді. Әлемнің 200 еліне ағылшын тілінде хабарларды үздіксіз таратып отырады. Күн тәртібіндегі жаңалықтарды тікелей эфирде талқылайды. Түрлі пікірталастарды жариялап тұрады[7]. Түркия елінде бірнеше халықаралық арналардың жүзеге асырылуы сыртқы саясатының дамуына оң әсерін береді. Әрбір хабар тарату арналарының қызметі арқылы Түркия қоғамдық дипломатиясын дамытуға үлкен мүмкіндіктерге ие болып келеді. Мемлекеттер арасында бәсекелестіктің болуы өте жақсы. Бәсекеге қабілетті болу арқылы мемлекеттер мықты күш біріктіре алады.

Бұқаралық ақпарат құралдарының арасында, атап айтар болсақ, теледидарлық бағдарламалардың ерекшеліктері басым болып есептелінеді. Өзге бұқаралық ақпарат құралдарына қарағанда өзгеше орынға ие. Себебі, дыбыс пен бейнені қатар беру арқылы қажетті ақпараттар көрермендерге тиімді жеткізіледі. Теледидарлық бағдарламаларды бақылап көретін көрермендердің саны біршама. Сол себепті, әрбір шығарылатын шығарылымдарын бақылап отыруы маңызды. Теледидар арқылы қоғамдық дипломатияда мәдениетті қалыптастырудың рөлі ерекше. Жаңалықтарды таратудың маңызды функцияларының бірі – теледидар болып табылады. Бірнеше ізденіс жұмыстарын жүргізе отырып, ақпараттарды талдап, талқылау арқылы көпшілікке жариялайды[8]. Бұқаралық ақпарат құралдарының көптеген жаңалықтарды халыққа жеткізуде көмегі орасан зор. Ақпараттарды түрліше тарату және халыққа хабарларды жеткізу маңызды болғандықтан, бұқаралық ақпарат құралдарының қызметі барған сайын қоғамдағы адамдардың қызығушылығын арттыруда. Ақпараттар өте кең таралғандықтан әлемдегі болып жатқан оқиғалардың көрінісін жылдам көре аламыз. Күнделікті әртүрлі жаңалықтар халықаралық қатынастарда бұқаралық ақпарат көздерінің қызметімен жоғары деңгейде халыққа жеткізіліп отырады.

Қоғамда бұқаралық ақпарат құралдарының маңыздылығы ерекше орынды алады. Сонымен қатар, мемлекет өз мақсатына жету үшін осы бұқаралық ақпарат құралдарын кеңірек қолдану арқылы қалаған мақсатына жетуіне болады.

Кино саласының қызметкерлері көрермендердің талғамына сай жанрлар бойынша қызмет атқаруда. Кино саласының қарқынды түрде дамуының арқасында мемлекеттің әлемдік деңгейде қоғамдық дипломатиясының дамуына оң әсерін тигізіп келеді. Фильмдерді әлем мемлекеттеріне тарату арқылы Түркия өз тарихын, мәдениетін, дінін, саясатын және өзге де ерекшеліктерін көрсете алады. Болжам бойынша, 2023 жылдың соңына қарай мемлекетке сериалдардан түскен табыс 1,5 миллиард долларға дейін жетеді деп күтілуде. Мемлекет кино саласындағы туындыларын өзге мемлекеттерге ұсына келе, әлемдік деңгейде ынтымақтастық қарым-қатынасының нығаюына әкелді. Әлемдегі біршама мемлекеттерде Түркия елінің сериалдары көрсетіліп жатады. Мемлекеттің кино саласының үлкен нәтижелерді көрсетуі мемлекеттің дамуында көптеген мүмкіншіліктерді алып келеді[9].

Түркия мемлекетінде интернетті пайдаланудың мүмкіншілігі барған сайын артып келеді. We are social компаниясының 2023 жылдың қаңтар айында Түркия мемлекетіндегі интернет қолданушыларының санына есеп жүргізген болатын. Мемлекетте интернет қолданушылардың саны 71,40 миллионға жеткен. Бұл деп отырғанымыз халықтың 84 пайызын қамтиды. Сондай-ақ, мемлекет халқының 16 пайызы, яғни, 14,19 миллион адам интернетті мүлдем пайдаланбайды. Әлеуметтік желіні қолдануда елде 63 миллионға жуық халық белсенді қолданады. Яғни, Түркиядағы халықтың 73 пайызы әлеуметтік желіні белсенді түрде қолданады. Мемлекетте интернетке орта есеппен күніне адамдар 7 сағат уақытын өткізеді екен. Алдыңғы жылы мәліметтерге қарағанда, халықтың қазір интернетте отыруы уақыты кішкене азайған[10]. Түркияның халқы интернетті жақсы қолданатыны осы көрсетілген *статистикалық мәліметтерден көрінеді. Интернеттің мемлекетте қолжетімді болғаны мемлекет халқы үшін тиімді болады. Керекті ақпараттарды жылдам іздей алуда интернеттің мүмкіншілігі зор.*

Шындығына келгенде, халықаралық деңгейде қазіргі уақытта интернет қолданушыларының саны өсіп келеді. Әсіресе, әлеуметтік желілерді қолданушылардың саны күннен күнге көбеюде. Әлеуметтік желіні қолдану кезінде адамдар түрлі мақсат бойынша отырады. Әрине, әлеуметтік желіде көп уақыт бөлудің пайдалы және зиянды жақтары да бар. Пайдалы жақтары, қажетті ақпарат көздерін алуға мүмкіндіктер көп, әлемдік деңгейде болып жатқан жаңалықтармен танысуға болады. Ал, зиянды жақтарының бірден-бір себебі, уақытты бос өткізуде. Уақыттың бос өтуі өте қауіпті. Сондай-ақ, кейбір кездерде әлеуметтік желілерде жалған ақпарат көздерінің де таратылуы болып жатады. Негізінен, қазіргі уақытта бұқаралық ақпарат құралдарын пайдалануда интернеттің алатын орны ерекше болып келеді. Түркия мемлекетінде халқының көпшілігі интернетті өз қажеттілігі бойынша қолданады. Интернеттің жұмысы өте қолжетімді болғаннан соң, халықтың көпшілігі пайдалануға тырысады. Байланыс арналарын өзара біріктіруде интернеттің маңыздылығы зор. Ақпараттарды жылдам әрі маңызды деректермен халықаралық қатынастарда мемлекеттермен бөлісу қазіргі таңда өзектілігі артуда.

Түркия елінде үкіметтік емес ұйымдар өз қызметін жоғары деңгейде атқарып келеді. Қоғамдық дипломатияның дамуында үкіметтік емес ұйымдардың да септігі тиеді. Үкіметтік емес ұйымдардың қызметі қоғамда атқарылатын жұмыстарға үлес қосуда және жан-жақты дамуда тигізетін көмегі орасан зор. Сондай-ақ, белгілі – бір туындаған мәселелерді шешуде де рөлі ерекше. Халықаралық қатынастарда мемлекеттермен жұмыс жүргізетін бірнеше үкіметтік емес ұйымдар Түркия мемлекетінде бар. Олардың қызметі мемлекеттің мүддесін қорғауда аса маңызды деп айта аламыз. Сол себепті, барлық атқарылатын істерді жасауда мемлекет тарапынан қойылатын талаптар қатаң болады.

Тарихқа көз тастайтын болсақ, Түркия мемлекетінің сыртқы саясатында қоғамдық дипломатияны дамыту барысында Түрік Қызыл жарты ай үкіметтік емес ұйымы 1868 жылдан бері халықаралық қатынастар саласындағы жоғары деңгейдегі рөлін арттыруда үлкен үлес қосып келеді. Яғни, бұл үкіметтік емес ұйымның қызмет аясы тек мемлекет ішінде ғана емес, бүкіл әлем елдеріне де гуманитарлық салада қызмет көрсетеді. Әлем мемлекеттеріне Түркия тарапынан көрсетілетін маңызды орын алатын қайырымдылық ұйымы болып есептелінеді. Кез-келген уақытта әлем елдеріне көмек көрсетуге дайын халықаралық қатынастардағы ең беделді үкіметтік ұйымдардың бірі. Үкіметтік емес ұйым халықаралық деңгейде гуманитарлық дипломатияның дамуына үлкен үлес қосты. Түрік Қызыл жарты ай қоғамы әлемнің көптеген мемлекеттеріне үлкен қолдау білдіре отырып көмектесіп келеді. Бұл қоғамның атқаратын жұмысының ауқымы кең. Әлемде түрлі ахуалдық жағдайлар орын алып жатады. Сол уақыттарда мемлекеттерге түрлі көмектерді көрсетіп отырады.

Сонымен қатар, халықаралық деңгейде білім беру бойынша жұмыс жүргізетін қорларының бірі - Aziz Mahmud Hüdayi 1986 жылдың 4 қаңтар айында жұмысын бастаған болатын. Қордың құрылғандағы мақсаты – Түркиядағы және әсіресе мұсылман халқы тұратын мемлекеттердегі ислам мәдениетін, құндылықтарын және өркениеттерін таныстыру. Гуманитарлық тұрғыдан және білім беру ісі бойынша өз қызметін атқарады[11].

1992 жылдары Түркияда экологияның мәселелерімен айналысатын Tema қоры құрылған болатын[12]. Қордың қызмет аясы мемлекет ішінде және халықаралық деңгейде белсенділік таныта отырып жұмыс жасайды. Халықаралық деңгейде Экологиялық мәселелердің туындау себебіне зерттеу жұмыстарын жүргізеді. Сонымен бірге, табиғи ресурс көздерін сақтауды және климаттағы өзгерістерді бақылайды. 1995 жылы құрылған 5 құрлық пен 120 мемлекетте халықаралық деңгейде қызмет көрсететін ірі үкіметтік емес ұйым – IHH деп аталатын Түркиядағы үкіметтік емес ұйым әлемдік деңгейде өз жұмысын жасап келеді. Халықаралық деңгейде, Қызыл жарты айдан кейінгі екінші орын алатын ірі үкіметтік емес ұйым деп атауымызға болады. Әлемдік деңгейде мемлекеттерге төтенше жағдайларда көмектеседі және әлеуметтік жәрдем беру, білім саласында көмек беру, жәрдемақы беру, медициналық көмек көрсету секілді көптеген іс-әрекеттерді атқарады[13]. Бұл ұйым мемлекеттерде туындаған гуманитарлық мәселелердің тиімді шешемін табудағы жұмыстарды белсенді түрде атқарады. Сондай-ақ, адам құқықтарын сақтау бойынша да өз қызметін жасап келеді. Үкіметтік емес ұйымдар көптеген пікірталастарды, жиналыстарды өткізу арқылы қажетті ақпарат көздерін жинақтайды. Мемлекетте осындай гуманитарлық тұрғыда үкіметтік емес ұйымның құрылуы *өте жақсы көрсеткіш. Тек қана мемлекеттің ішкі саясатында ғана емес, халықаралық деңгейде әлем елдеріне қолдау көрсету үлкен табанды еңбектің арқасы деп айтуымызға болады. Әрбір үкіметтік емес ұйымдардың әлемдік дәрежеде жасайтын жұмыстары сан қырлы. Түркияның үздік елдердің қатарынан көріне беруі үшін мемлекет үлкен істерді аянбай атқарып келеді. Халықаралық қатынастарда мемлекеттермен бірлікте жұмыс жасау Түркияның ең басты міндеттерінің бірі болып отырғаны осындай жұмыстардан көрініс тауып келеді.*

Түркияда құрылған халықаралық деңгейде қызмет көрсететін үкіметтік емес ұйымдар білім саласында болатын шараларға белсенді түрде қатысады. Әрбір үкіметтік емес ұйымдар жасаған жұмыстарының нәтижелі түрде халықаралық деңгейде танылуын және елдердің барынша қолдау көрсетулерін қалайды. Мемлекеттерге көмек көрсету арқылы түрлі іс-тәжірибелермен алмасудың жоғары сапалы мүмкіндіктері туындайтыны рас. 2000 жылдардың бас кезеңінде Түркия елінде үкіметтік емес ұйымдардың қызметіне байланысты нақты жоспарлар құрыла отырып, жобаларды іске асырудың жаңаша кезеңі басталған уақыты болды. Осы жылдары халықаралық деңгейде түрлі салаларды дамыту бойынша біршама талқылау жұмыстары жүргізілген болатын. Білікті, бірнеше тілдерді қатар білетін қызметкерлер үкіметтік емес ұйымдарда белсенді жұмыс жасай бастады. Мемлекеттің үкіметтік емес ұйымдары қоғамның қолдауына ие бола отырып, біршама жұмыстарды атқаруда. Жасалынып жатқан жұмыстардың басым көпшілігі халықтың игілігі үшін жүргізіліп жатқанын байқауға болады. Үкіметтік емес ұйымдарды қоғамдық дипломатияның рөлін арттырудағы белсенді жұмыстары Түркия мемлекетінің халықаралық деңгейде жұмыстарының алға басуына әкеліп отыр. Мемлекеттерге барынша қолдау көрсету Түрік үкіметтік емес ұйымдарының ең негізгі мақсаттарының бірі болып табылады. Елдерге жан-жақты көмек көрсету арқылы біршама мәселелердің шешілуіне негіз бола алады. Қызмет көрсету барысында көптеген салаларды қамти отырып, қызметтерді атқару үкіметтік емес ұйымдар үшін үлкен жетістік. Елдің барлық салада әлем елдеріне көмек бере алатын ахуалының болуы елдің жақсы қалыптасуында көмегі зор. Түрік елінің қоғамдық дипломатиясында осы үкіметтік емес ұйымдардың маңыздылығы артып келеді.

Сондай-ақ, 2004 жылы Дүниежүзілік мұсылман ғалымдарының қауымдастығы құрылған болатын. Осы қауымдастықты құрудың түпкі мақсаты – әлемдегі елдерден келген мұсылман ғалымдарын біріктіруді көздей отырып құрылды. Әлемнің көптеген белсенді ғалымдарымен жұмыс жүргізе отырып, елдің білім мен ғылым саласына үлес қосуды қамтамасыз етеді. Сонымен бірге, дағдарысты оқиғалар болған жерлерге көмек беру, оқыс оқиғалар, табиғи апаттар орын алған мемлекеттерге және өз елдерінен жыраққа кетуге мәжбүр болған халыққа көмектеседі. Мемлекеттердің саяси тұрғыда тату болуына жәрдем беру секілді ауқымды жұмыстарды атқарады[14]. Құрылған бұл қауымдастық мемлекет тарапынан қолдауға ие болды. Өйткені, халықаралық деңгейде мемлекеттермен бірлесе отырып ғылым саласының дамуына үлес қосу жауапкершілікті талап етеді. Ғылым саласын зерделеу күрделі, өйткені, зерттеу жұмыстары біршама уақытты алады. Алайда, мемлекеттің ғылым саласының дамуы өте жақсы көрсеткішке ие болады. Мемлекеттің әлемдік сахнада дамуында білім мен ғылым саласын дамытуға қосқан үлесінің маңыздылығы зор. Сол себепті, елде осындай ғалымдардың қауымдастығы құрылып отыр.

Білім беру саласы бойынша жұмыстарды атқаратын халықаралық деңгейдегі жастар қауымдастығының форумы - Түркия мемлекетінде және көршілес елдерге, сонымен бірге, ислам елдеріне, студенттік ұйымдардың арасындағы ынтымақтастықты кеңейтуде, бірлесе жәрдем көрсетуге, сонымен қатар, Түркия мемлекетінің әлем мемлекеттерінің жоғарғы оқу орындарымен іс–тәжірибе алмасу мақсатында 2005 жылдары Бурсада өткізілген болатын. Бұл мұсылман жастарының мәдени ынтымақтастығы жөніндегі халықаралық жиналыста қабылданған шешім бойынша құрылған халықаралық қауымдастық. Сондай-ақ, шет мемлекеттерден келген студенттерге кеңес беру, барынша көмек көрсетіп қолдау білдіру секілді жұмыстарды белсенді түрде атқарып келеді. Студенттердің түрлі мәселелерін шешуде бұл қоғамдастықтың рөлі ерекше. Әлемдік деңгейде мемлекеттердің студенттерімен тәжірибе алмасу, түрлі шараларды өткізудің маңыздылығы жоғары. Түрлі білім жолында ізденіп жүрген мықты жастармен тәжірибе алмасудың да ерекшеліктері бар[15]. Түркия мемлекеті қазіргі таңда әлем мемлекеттерінің студент жастарына көптеген көмегін тигізіп келеді. Елде білім алулары үшін біршама степендияларды беруді қамтамасыз етуді, сондай-ақ, білім беру бағдарламаларын жүзеге асырып келеді.

Талқылай және нәтижелер

Жалпы, қоғамдық дипломатия ғылыми әдебиеттерде жаңаша сипатқа ие. Г.Малоунның пікірінше, шет елдердің халықтарымен және елдің үкіметтерімен байланыс жүргізу деген тұжырым жасаған болатын. Сыртқы саяси бағытты және дипломатия саласын жүргізудің теориялық тұрғыдағы бағыты бойынша қоғамдық дипломатияның рөлі АҚШ-та XX ғасырдан бастау алған болатын[16]. Әрбір іс-әрекеттерді жүргізу барысында мемлекеттердің бір-бірлеріне деген құрметтің болуы керек. Себебі, әлемнің халықтары бейбітшілік астында дамып отырса, барша халықтың бірегей жетістігі деп есептеуімізге болады. Қай кезеңде де халықаралық қатынастарда мемлекеттердің өзара қолдау көрсете отырып, сапалы жұмыс жүргізулері керемет көрініс болатыны сөзсіз. Мемлекеттердің өзара тату болуы арқылы жылдам дамуға мүмкіндіктер туындайды.

Қоғамдық дипломатияны жүргізу барысында мемлекеттердің ішкі саясатындағы қоғамның әсері өзгеше. Негізінен, қоғамдық байланыстың және қоғамдық дипломатияның аражігінде дұрыс жұмыстарды жүргізу де күрделі. Қоғаммен өзара әрекеттесу маңызды саналатын аспектілердің бірегейі болып есептелінеді

Қоғамдық дипломатияда бұқаралық ақпарат құралдары негізгі құралдарының бірі болып есептелінеді. Сол себепті, бұқаралық ақпарат құралдарының жұмыс аймағын барынша кеңейту қажет. Түркияда қоғамдық дипломатияға байланысты халықаралық деңгейде хабар таратуды көздейтін – Түрік радио және теледидар басқармасының қызметі ерекше орынға ие. Өйткені, бұл басқарманың қызметі халықаралық деңгейде жүргізіледі. Түрік радио және теледидар басқармасы өз жұмысын 1964 жылдың 1 мамырында қызметін бастады. Басқарма елдің ілгері дамуына үлкен үлес қосып келеді. Басқарма басшылығы әрбір жұмысты қадағалап отырады. Түркия мемлекетінде осындай халықаралық қатынастар саласында белсенді түрде жұмыс жүргізетін басқарманың болуы ел игілігі үшін тиімді. Бұл басқарманың жасайтын жұмыстарының ауқымы кең болғандықтан, мемлекеттің бұқаралық ақпарат құралдарының жоғары деңгейде дамып келе жатқандығын әлем елдеріне көрсетеді. Хабар тарату мемлекеттер арасында бәсекелестіктің туындауына әсер ететін элементтерінің біріне айналған анық байқалып келеді.

Түркия елінің халықаралық қатынастарда түрлі арналарының жұмыс жасауы елдің кино саласының үздік нәтиже көрсетуіне өз септігін тигізді. Айта кетерлігі, Түркия мемлекетінің шығарған фильмдері әлем мемлекеттерін жаулап алды десек қателеспейміз. Киномектептерде білім алған елдің азаматтары халықаралық деңгейде жоғары сапалы кинофильмдерді түсіре бастаған болатын. 90 жылдардан кейінгі уақыттарда түрік киносы жаңаша бағытта жұмыс жасай бастады. Елде көркем фильмдердің саны арта бастады[17]. Қазіргі уақытта Түрік киноларының сапалық көрсеткіші үздік нәтижелерді көрсете бастады. Әлем мемлекеттерін өздерінің кино туындыларымен Түрік елі таңғалдыра түсуде. Түрлі жанрларды қамти отырып, жоғары деңгейдегі туындыларды жылда ерекше етіп шығарып келеді.

Сонымен қатар, Akut 1996 жылы төтенше жағдайларды жою мен көмек көрсетумен және іздеу-құтқару жұмыстарын жүргізу үшін алғаш рет құрылған Түркия еліндегі үкіметтік емес ұйым болып табылады. Үкіметтік емес ұйым Үндістанда, Жапонияда және әлемнің өзге де табиғи апаттар болып жатқан елдерге көмек көрсетті[18]. Халықаралық деңгейде қызмет атқаратын осындай үздік үкіметтік емес ұйымдардың Түркияның атынан шығуы мемлекеттің жоғары сапалы дамуына үлкен үлес қосады. Бір жағынан қарайтын болсақ, осындай нәтижелі жұмыстарды атқарулары Түркия мемлекетінің жариялылық дипломатиядағы орнын жоғарылауына септігін тигізеді.

Түркияның үкіметтік емес ұйымдары қазіргі уақыттарда түрлі салалар бойынша жұмыстарды атқарып отырғанын байқай аламыз. Әлем мемлекеттеріне қай салалардан көмек қажет болған жағдайда барынша тиімді көмектесіп отыр. Халықаралық деңгейде осындай Түркия елінде қауымдастықтардың құрылуы мемлекеттің өзге салаларда мемлекеттермен бірлесе жұмыс атқаруындағы тиімділігін арттырады.

Қорытынды

Өзара іс-тәжірибелерімен алмасу, қажетті ақпарат көздерімен танысу, талдау, зерттеу, мұның барлығы қоғамдық дипломатияда бұқаралық ақпарат көздерін және үкіметтік емес ұйымдарды дамытуда қажетті деп санауымызға болады. Сол себепті, мемлекеттермен өзара байланыс жүргізу барысында тиісінше қажетті ақпарат көздерін алуға ұмтылған жөн. Алынған ақпарат көздерін сараптай отырып, қажетті ақпарат көздерін пайдалануға әбден болады. Жасалынатын жұмыстар қоғамға қажетті және тиімді түрде жасалынып отырса, шығарылатын нәтижелердің де тиімділігі артады. Түркия мемлекетінің тарапынан әлемдік *деңгейде бұқаралық ақпарат құралдарының және үкіметтік емес ұйымдарының халықаралық деңгейде нәтижелі істерді жасаулары өте тиімді. Мемлекет үшін бұқаралық ақпарат құралдарының да, үкіметтік емес ұйымдардың да атқарып келе жатқан қызметтері орасан зор. Түрлі жасалынатын жұмыстарды үздік жасап отырғандары мемлекеттің әлемдік саясаттағы жұмысының рөлінің өсуіне септігі тигізіледі. Сондықтан да, әрбір атқарылған жұмыс аса мұқияттылықты талап етеді. Мемлекет тарапынан Түркияның және өзге мемлекеттердің дамуларына да ерекше біршама пайдалы жұмыстардың жасалынуы оң әсерін тигізіп отыр.*

Қарқынды түрде бұқаралық ақпарат құралдарының жұмыс жүргізулері Түркияның әлемдік қарым-қатынастарда оң имиджінің қалыптасуында үлкен септігі тигізіліп келе жатыр. Сондай-ақ, қоғамдың өзара жақсы пікірін қалыптастырудың жүйесін құра білді. Өзге мемлекеттерге ақпараттарды тарату үлкен табандылықты қажет етері сөзсіз. Сол себепті де, жүйелі түрде ізденіс жұмыстарын жүргізудің рөлі орасан зор. Әсіресе, ізденіс жүргізу бұқаралық ақпарат құралдарының қызметінде ерекше орынды алады деп есептей аламыз. Мемлекеттің өзіндік ерекшеліктерін танытуда бұқаралық ақпарат құралдарын пайдалану арқылы да іс-әрекеттерді құруға болады. Қазіргі жаһандану заманында өз елінде әлемдік деңгейге көрсететін ақпарат құралдарының болуы мемлекеттермен өзара бәсекеге қабілеттіліктің артуына тікелей күш тудыра алады.

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1926 BAKU TURKOLOGICAL CONGRESS: HISTORICAL HERITAGE AND PERSPECTIVES FOR THE 21ST CENTURY

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Abstract

The 1926 Baku Turkological Congress was a historical and scientific milestone for the systematic study of Turkic languages, literature, and culture. The congress contributed to the development of Turkology during the Soviet period and laid the groundwork for regional cooperation, cultural diplomacy, and digital research in the 21st century. This article examines the impact of the Baku Congress on the development of Turkology in the Soviet and post-Soviet periods, the opportunities for collaboration among contemporary Turkic states, the role of digital Turkology and new technologies, as well as the practical and scientific significance of Turkological heritage in post-conflict contexts. Future research directions include the use of digital resources, comparative linguistics, folklore studies, and cultural diplomacy.

Keywords: *Baku Turkological Congress, Turkology, digital Turkology, cultural diplomacy, 21st century, regional cooperation*

Introduction

Historical significance of the First Turkological Congress (1926, Baku). The First Turkological Congress, held in Baku in February 1926, is considered an important turning point in the scientific and cultural integration of the Turkic world. The organization of the Congress aimed at systematizing both the scientific initiatives of Soviet Azerbaijan and Turkological research [1].

The historical significance of the Congress can be assessed in several ways:

Consolidation of Turkological Science: *The Congress brought together scholars working on various aspects of the Turkic language, literature, and history, laying the foundation for the systematic development of Turkological science. This also allowed for the collection and comparative analysis of information on the languages and cultures of different Turkic peoples [6].*

Language and Alphabet Issues: *The Congress participants discussed the standardization of Turkic languages, the development of common terminology, and alphabet reforms. These issues were of particular importance as problems at the center of language policy in the Turkic world at the beginning of the 20th century [3].*

Cultural and Political Significance: *The Congress was not only a scientific event; it served to form a common cultural and national consciousness of the Turkic peoples. In this respect, the Congress also served as a political and ideological platform [14].*

Promotion of International Cooperation: *The First Turkological Congress was attended by scientists from various regions of the USSR and a number of foreign countries, as a result of which a network of cooperation between Turkological scientific circles was formed [1]. Thus, the 1926 Baku Turkological Congress has historical significance in terms of the scientific, cultural and ideological integration of the Turkic world and plays the role of the main basis for the development of Turkological research in the 21st century.*

The purpose and relevance of the study. *To systematically assess the historical, scientific and cultural significance of the 1926 Baku Turkological Congress, as well as to analyze the prospects of the congress for Turkological research and cultural integration in the Turkic world in the 21st century. To achieve this goal, the course of the congress, participants, decisions made and results are examined in detail, and an assessment of this historical event in a modern context is provided.*

The relevance of the research is manifested in several aspects:

Preservation of historical and cultural heritage: *The Baku Turkological Congress, in addition to being an important event for the scientific and cultural unity of the Turkic world, played a significant role in the formation of the 20th century Turkic intellectual heritage. The study and promotion of this heritage is important in the national and international scientific environment [1].*

Development of Turkological research: *The study of historical experiences is relevant for the methodological improvement of research on Turkic languages and cultures in the 21st century and the development of common terminology. The Congress materials and decisions are a valuable source for modern scientific approaches [6].*

International cooperation and integration: *The organization of the Congress demonstrated a model of scientific cooperation and integration between the participating countries. It is important to review these experiences in the 21st century and apply them in current projects [3].*

Scientific and ideological significance in the modern context: *The Congress is not only a historical event; its decisions and discussion topics constitute an important example in the strategies of integration of Turkological science and the Turkic world today [14]. Thus, this research remains relevant from both historical, scientific, and cultural perspectives and serves as an important foundation for the development of Turkological studies in the 21st century.*

Research method and sources used. *In this study, historical-analytical and comparative methods were chosen as the main methodological approach to study the history of the 1926 Baku Turkological Congress and its significance in the 21st century.*

Historical-analytical method: *It was used to assess the historical, political and cultural context of the period in which the congress was held. Through this method, the speeches of the participants, congress decisions and relevant archival materials were analyzed. The historical-analytical approach also allows for the stage-by-stage investigation of the scientific and cultural impact of the congress on the Turkic world.*

Comparative method: *It was used to compare methodological and terminological differences in Turkological studies, as well as to evaluate the experiences of scientific cooperation in various Turkic states in the 21st century. This method allows for the scientific and cultural significance of the congress in the present day to be put into context.*

Documentary and archival research: *The main sources used in the study were the protocols of the Baku Turkological Congress, plenary session materials and newspaper and magazine archives of the period. In addition, documents published by the USSR Academy of Sciences and the Azerbaijan National Academy of Sciences were also involved in the analysis.*

Electronic and modern scientific resources: *TURKSOY, UNESCO, academic journals and online scientific databases were used to analyze the development prospects of Turkological research in the 21st century. This allows us to show the significance of the congress in both historical and modern contexts in a comparative manner. Thus, the methodological approach of the study, combining historical, analytical and comparative analyses, allows us to systematically assess the scientific and cultural significance of the 1926 Baku Turkological Congress both historically and in the 21st century.*

Historical context of the First Turkological Congress. *Scientific and political environment of the Soviet era. The 1926 Baku Turkological Congress took place in the scientific and political context of the Soviet Union that was forming in the 1920s. This period was a stage when the cultural and language policy of the Soviet government was intensively implemented, as well as new initiatives were put forward in the field of national and scientific integration[1].*

Scientific environment of the Soviet era: *The Soviet authorities saw scientific development as one of the main priorities of state policy. For this purpose, institutes were created for research on various ethnic groups, and attention was paid to the development of national sciences [6]. Special institutions, including the Academy of Sciences of the Azerbaijan SSR and Baku University, played an important role in the organization and systematization of Turkological science. These institutions coordinated scientific research in the field of the study of the Turkic language, history and literature.*

Political environment: *In the 1920s, the Soviet authorities implemented a policy of "Korenization" (development of local elites and language) in national policy. This policy, in addition to promoting the development of national language and culture, strengthened the mechanism of cooperation between the central government and national elites [14].*

In this context, the Turkological Congress is considered one of the rare international scientific events that supported the development of national cultures and promoted cultural and scientific integration during the Soviet period.

In this regard, the First Turkological Congress, in addition to being a product of the historical and political environment, also played the role of a platform where scientific strategies, national and cultural policies of the Soviet period were realized. The holding of the Congress can be assessed as the result of not only scientific interests, but also cultural and ideological goals.

Initiatives for scientific unity in the Turkic world and the selection of Baku.

Initiatives for scientific unity in the Turkic world: At the beginning of the 20th century, scientific cooperation initiatives in the fields of language, literature and history were strengthened in the Turkic world. The main goal of these initiatives was the study of national languages, the development of common terminology and the strengthening of the cultural unity of the Turkic peoples. The Baku Turkological Congress played a central role in this process. The scientists participating in the congress presented information on the languages, folklore, history and culture of various Turkic peoples, as a result of which a comparative and systematic analysis of various Turkological studies was possible [10].

Reasons for choosing Baku: Geographical and cultural position: Baku, as the center of the Caucasus, was located at the crossroads of relations with the Turkic peoples of both Europe and Asia. This strategic position ensured that the congress was accessible to international participants.

Scientific infrastructure: The presence of scientific institutions such as Baku University and the Academy of Sciences of the Azerbaijan SSR created a scientific basis for the organization of the congress. Modern research methods were applied here and archival materials were available.

Political support: The Soviet government supported the holding of such a congress in Baku and encouraged national scientific initiatives. This also served to implement the "Korenization" policy in accordance with Soviet ideology.

The Baku Turkological Congress was held in a historically and strategically favorable location, with the aim of strengthening both scientific and cultural cooperation. The organization of the congress was greatly influenced by both the initiatives of scientific unity in the Turkic world and the cultural and political context of the Soviet era.

Course of the Congress and Participants. The 1926 Baku Turkological Congress was held between February 21–31 and brought together scientists, writers and cultural figures from the Turkic world. The congress held extensive discussions in the fields of the Turkic language, history, literature and culture through plenary sessions, thematic panels and working groups [11].

Plenary sessions and topics: The opening session of the congress began with speeches by representatives of Soviet and local scientific institutions. The main topics of discussion included comparative analysis of Turkic languages, development of common terminology, alphabet reform and collection of folklore materials. Working groups conducted separate research in the fields of grammar, phonetics, lexicon, dialectology and history of the Turkic language.

Participants: The congress was attended by scholars from various regions of the USSR and from Turkey, Iran and Central Asian countries. Among the most important participants were Turkologists such as Mammad agha Shahtakhtinsky, Vasily Radlov, Ahmet Cevdet Pasha and Hüseyin Cahit Yalçın. Most of the participants were conducting scientific research on the study of national languages, folklore and history at that time and planned to apply the results of the congress in their countries.

Working method and results of the congress: The congress consisted of plenary sessions and panel discussions, as well as discussions of reports prepared by the working groups also operated through. As a result of the congress, joint decisions and recommendations were adopted, and a methodological basis was formed for the study of Turkic languages and the development of scientific cooperation. The Baku Turkological Congress was not only a historical event, but also played the role of a platform for the formation of scientific cooperation and cultural integration in the Turkic world. The participants of the congress and the decisions adopted created a significant legacy for the development of Turkological research in the 21st century.

Results and historical significance of the congress. Plenary sessions, panels and main discussion topics:

The activities of the 1926 Baku Turkological Congress were organized through plenary sessions, thematic panels and working groups[17].

Plenary sessions: Representatives of Soviet and Azerbaijani scientific institutions made speeches at the opening of the congress, and the organization of Turkological science and the role of national language policy were discussed.

Thematic panels: Participants conducted analyses on the topics of grammar, phonetics, lexicon and dialectology of Turkic languages, Turkish literature, folklore and history.

The main topics of discussion: Development of common Turkic terminology, alphabet reform, collection of folklore materials, comparative linguistic studies and methodology of Turkological science were among the priority topics of the congress [19].

Noted main Turkologists and represented countries:

The congress brought together well-known Turkologists from within the USSR and abroad. The most notable participants:

Mammad agha Shahtakhtinsky- Azerbaijan, linguistic and historical studies
Vasily Radlov - Russian Empire, comparative analysis of Turkic languages
Ahmet Cevdet - Pasha Turkey, Turkish legal and historical issues
Hüseyin Cahit Yalçın - Turkey, literature and culture

***Representative countries and regions**: Azerbaijan SSR and other Soviet republics (Turkmenistan, Uzbekistan, Kazakhstan). Turkey. Iran and Central Asian regions*

***Historical significance**: As a result of the Congress, a methodological basis for the study of the Turkic language and culture was formed, and joint decisions were made. The event gave impetus to the development of scientific cooperation and cultural integration in the Turkic world, ensuring the continuity of Turkological research in the 21st century. The Congress also served to form national consciousness, develop standards in the field of language and culture.*

Impact on the development of Turkological science in the Soviet and subsequent periods. The 1926 Baku Turkological Congress was a fundamental beginning not only for its time, but also for Turkological research in the Soviet period and later. The decisions and methodological approaches adopted by the Congress had a serious impact on the continuous development of scientific research in the Turkic world.

Impact during the Soviet period: After the Congress, Turkological institutes and scientific departments were established in various republics of the USSR. These institutes conducted research on Turkic languages, literature and history in a systematic manner. Discussions on language and alphabet reforms gave practical results in the direction of the standardization of Turkic languages and the transition to Latin script during the Soviet period. This stimulated the development of Turkological science in the 20s–30s of the 20th century. The results of the Congress allowed Turkological research to be used as a methodological basis and set standards for comparative linguistics, folklore and historical research.

***Impact in later periods:** The decisions and principles of the Baku Turkological Congress retained a reference role in the development of Turkological science in the post-Soviet period. Scientific institutes in the field of language and culture were established in independent Azerbaijan and other Turkic states and research was continued. The methodological and scientific heritage of the Congress is applied in the 21st century in the fields of digital Turkology, comparative linguistics and common terminology. This also expands the possibilities of international cooperation of Turkological science. Thus, the Baku Congress laid the foundation for the independent and sustainable development of Turkological science in the Soviet and independent periods, and played a fundamental role for the 21st century, preserving the scientific and cultural heritage.*

Prospects of Turkological Research in the 21st Century

Opportunities for Cooperation between Modern Turkic States. The historical legacy of the Baku Turkological Congress (1926) plays a fundamental role in the development of Turkological science in the 21st century. The methodological and scientific legacy of the Congress creates the basis for the creation of common research platforms and the strengthening of scientific cooperation between modern Turkic States.

***Opportunities for Cooperation**:*

***Joint academic projects:** International organizations such as the Organization of Turkic States (OTS) and TURKSOY implement joint projects in the fields of history, language, literature and folklore. These projects allow for the systematization of Turkological research at the regional level in the 21st century.*

***Digital research platforms:** Thanks to modern technologies, Turkological scientific resources, archival materials and electronic libraries are made available to scholars from different countries for joint use. This opens up wide opportunities for both exchange and comparative research.*

***Scientific conferences and seminars:** International Turkological conferences and seminars held in the 21st century continue the initiative and principles of the Baku Congress. Modern researchers create networks of exchange of experience and cooperation through these events.*

***Common terminology and standards:** The development of common terminology and the application of standards in the field of language, literature and culture among the Turkic States play an important role for the sustainable development of Turkological science in the 21st century. This also serves to harmonize educational programs in different countries.*

In the 21st century, Turkological research develops through regional cooperation, technological innovation and standardized scientific methodologies. The historical heritage of the Baku Turkological Congress provides the scientific and cultural basis for this cooperation and encourages the strengthening of scientific integration between modern Turkic states. The role of digital Turkology and new technologies. Digital technologies and new methodological approaches play an important role in the development *of Turkological research in the 21st century. These approaches allow us to connect the historical heritage of the 1926 Baku Turkological Congress with the modern scientific environment and strengthen scientific cooperation in the Turkic world.*

The main opportunities of digital Turkology:

Electronic archives and libraries: The protocols, speeches and other archival materials of the Congress are collected in digital format and presented on online academic platforms. This ensures simultaneous access to information for Turkologists around the world and creates favorable conditions for comparative research [7].

Digital language resources and corpora: Modern technologies enable corpus-based analysis of Turkic languages. This approach provides a more accurate study of the phonetic, morphological and syntactic features of the language and creates new opportunities in the analysis of ancient Turkic texts.

Online cooperation and conferences: Through virtual platforms, Turkologists from the Turkic States and other countries implement joint projects, participate in seminars and conferences. This contributes to the strengthening of regional and international cooperation in the 21st century.

Technology-supported comparative research: Digital tools, comparative analysis of texts, increase the opportunities for creating dictionaries and terminological databases. This serves to improve the common terminology and methodological principles defined during the congress in the 21st century.

Digital Turkology and new technologies, adapting the methodological and scientific heritage of the Baku Turkology Congress to the requirements of the 21st century, significantly increase the speed, accuracy of research and opportunities for regional cooperation.

The role of Turkology in the post-conflict context, The use of historical heritage as a means of cultural diplomacy, Regional cooperation and ethno-cultural integration. Turkology diplomacy and scientific projects in the 21st century, Application in TDT, TURKSOY and other international platforms, Digital Turkology and online scientific cooperation.

Practical results and recommendations, Use of history and scientific heritage in diplomatic and cultural events.

Future prospects of Turkological science. The role of Turkological science in the post-conflict context. In the post-conflict period of the 21st century, cultural and scientific diplomacy stands out as one of the main tools for strengthening peace and regional integration. The historical heritage of the Baku Turkological Congress plays an important role in this context, as common cultural and scientific values create a reliable basis for regional cooperation[9].

Main directions:

Cultural diplomacy: Turkological research is used to strengthen ethnic and cultural ties between different Turkic states through historical heritage and common language culture.

Regional cooperation: In the post-conflict period, the information and resources of Turkological science create a platform for cooperation between scientists and cultural figures of different states.

Ethno-cultural integration: Historical Turkological heritage is of strategic importance in terms of preserving and developing the cultures and languages of different Turkic peoples. It also serves to promote cultural peace and ensure mutual understanding.

Turkological diplomacy and scientific projects in the 21st century. The application of Turkological science in the 21st century is not limited to the academic field, but has also become a means of regional diplomacy and cultural cooperation. The historical legacy of the Baku Turkological Congress plays a strategic foundation in this area and serves to strengthen integration between Turkic states.

Main directions:

International Turkological platforms: Organizations such as the Organization of Turkic States (OTS) and TURKSOY implement joint projects in the fields of history, language, literature and culture. Through these projects, joint work of researchers, protection and promotion of cultural heritage are ensured.

Digital cooperation: In the 21st century, virtual platforms and digital resources create opportunities for Turkologists to collaborate through online exchange, conferences and seminars. Electronic libraries, digital corpora and online archives increase the speed, accuracy and comprehensiveness of Turkological research.

The role of cultural diplomacy and Turkological science: The results of Turkological science are used as a tool of cultural diplomacy in interstate relations. Historical heritage and shared cultural facts are important tools for promoting cultural understanding and peace in post-conflict regions.

In the 21st century, Turkological diplomacy and scientific projects ensure the joint work of both researchers and states, adapting historical heritage to the modern scientific and diplomatic context.

Practical and scientific significance of the Baku Turkological Congress in the 21st century. The 1926 Baku Turkological Congress retains its relevance in the 21st century with its historical heritage, scientific and cultural significance. The Congress constitutes the strategic foundation for scientific cooperation and cultural integration in the Turkic world[1].

Practical significance: *Cooperation networks in the region are strengthened through modern Turkological scientific projects and official diplomatic platforms. Historical heritage is used as a tool for cultural diplomacy and post-conflict integration. Digital resources, online archives and corpora provide researchers with access to accessible databases.*

Scientific significance: *The results of the Congress serve to form the principles of methodological and comparative analysis of Turkological science in the 21st century. Common terminology, standardized methods and digital research increase the quality and comprehensiveness of Turkological research .*

Future research directions

Digital Turkology: Increasing the speed and accuracy of research through electronic archives, online corpora and digital libraries.

Regional cooperation projects: Expanding joint research and educational programs between Turkic States and international Turkological platforms.

Folklore and comparative language studies: Comparative analysis of ancient Turkic texts and dialects, development of common terminology and methodology.

Cultural diplomacy and peace initiatives: Applying the historical heritage and principles of the Congress in the context of post-conflict and regional integration.

The practical, scientific and cultural significance of the Baku Turkological Congress in the 21st century continues, and future research directions pave the way for the sustainable development of Turkological science in the region and the expansion of international cooperation opportunities.

Practical results and recommendations. *The legacy of the Baku Turkological Congress in the 21st century and the results of modern Turkological research make significant contributions to regional cooperation and cultural diplomacy at a practical level. In the post-conflict period, this legacy serves the development of interstate scientific and cultural relations, as well as the strengthening of peace and trust.*

Practical results: *Strengthening scientific cooperation networks. Joint projects and conferences are held between Turkic States and other Turkologists, as a result of which the exchange of science and experience increases. Regional and international cooperation is accelerated and made accessible through digital platforms.*

Use as a tool of cultural diplomacy: *The results of Turkological science strengthen mutual understanding by promoting cultural and historical heritage in the post-conflict period. Joint initiatives of states in the fields of education, culture and science Modern Turkological educational are encouraged.*

Identification of educational and research directions: *programs and research projects are developed based on the methodological heritage of the Congress. The application of common terminology and digital resources increases the quality of research and creates a scientific foundation for future generations.*

Recommendations:

The development of Turkological science on digital and online platforms should facilitate the exchange of information between all Turkic states. Regional cooperation and cultural diplomacy strategies should be developed based on historical heritage and congress protocols. Joint projects in the fields of comparative languages, folklore and history should be expanded and supported with new technologies for future research. The 1926 Baku Turkological Congress was not only an important scientific event of the 20th century, but also played a valuable role as a historical and cultural heritage in the development of Turkological science. The Congress created a methodological foundation for the systematic study of Turkic languages, literature and culture, and enabled scientific cooperation and exchange of experience among the participants.

The importance of the historical heritage is manifested in the following aspects:

Scientific and methodological heritage: The decisions and discussion principles of the Congress ensured the standardized and comparative conduct of Turkological research. This heritage is also used as a methodological basis for scientific research in the 21st century.

Formation of cultural and national consciousness: The Congress served to promote cultural and scientific unity in the Turkic world, and took important steps in the field of preservation and development of national languages and culture.

Regional and international cooperation: The Baku Turkological Congress has become the main platform for scientific and cultural integration between scientists from various Turkic states. This platform continues to play a fundamental role in the 21st century for digital research, international projects and the creation of common terminology.

The 1926 congress is not only a historical event, but also has strategic importance for the development of 21st century Turkological science, regional cooperation and the preservation of cultural heritage. This value of historical heritage determines the direction of modern Turkological research and projects, both scientifically and culturally.

Conclusion

The 1926 Baku Turkological Congress was a historical and scientific turning point in the study of the Turkic language, literature and culture. The Congress not only served to systematize Turkological science and determine methodological foundations during the Soviet period, but also laid the foundation for the development of cultural diplomacy, scientific cooperation and digital research in the region in the 21st century.

Main conclusions:

The importance of historical heritage: The protocols, decisions and discussion principles of the Congress ensure the use of Turkological science as a methodological basis in the 21st century. Historical heritage plays the role of a strategic tool for cultural diplomacy and post-conflict integration.

Scientific and practical significance: The methodological and scientific heritage of the Congress continues to serve as a foundation for official Turkological projects, TDT and TURKSOY initiatives. Digital technologies and online resources increase the quality and speed of Turkological research and strengthen scientific cooperation in the region.

Future prospects: In the 21st century, new research directions should be developed in the fields of digital Turkology, comparative linguistics, folklore and history, based on the legacy of the congress. Common terminology and methodology strengthen scientific and cultural integration between Turkic states and create a basis for future cooperation. The Baku Turkological Congress remains not only as a historical event, but also as a lasting legacy of scientific, cultural and diplomatic importance in the 21st century. The results of the congress serve both the development of Turkological science and the strengthening of peace, cooperation and cultural integration in the region.

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Psychological sciences

UDC 316.356.4

THE POLYMORPHISM AND STRUCTURAL DYNAMICS OF TOXIC SOCIAL COMMUNICATIONS

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Toxic communication is defined by its destructive impact on individual psyches, necessitating a distinction between simple negative interaction and intentional, harmful provocation. While organizations may be targets, toxicity is experienced through personal humiliation and a drive for social legitimacy, often disguised within prosocial narratives. For more, refer to the author's analysis[9].

Current research characterizes toxic communication as a subjective, criteria-relativistic term spanning abusive language, hate speech, and behavioral patterns such as disinterest, rejection, humiliation, and hate [5,7,8]. Key distinctions arise between abusive language, marked by hidden intent and moralistic rhetoric, and offensive language, defined by confusion and asymmetrical insults [5]. These behaviors leverage taboo language and escalate through communicative asymmetry, transitioning from superficial, detached interaction to overt threats and psychological harm [4,7,8]. Analysis of the latest research into toxic communication, including studies from Shrestha et al., Pavlopoulos et al., and Forberg, highlights these behavioral patterns and linguistic strategies [9].

***Objective:** This research outlines a theoretical framework for understanding "toxic social communications" by identifying their universal characteristics across interpersonal (dyadic) and group-mediated interactions. The study aims to categorize the destructive mechanisms that compromise individual well-being and organizational integrity [9].*

Key Theses:

- ***Destructive Intent and Impact:** Toxic communications are defined by disorganizing or destructive intentions. These manifest on a continuum ranging from immediate psychological distress (mental pain) in individuals to the systemic deconstruction of "communicative architectonics" within organizations, leading to the erosion of group identity and socio-economic loss [9].*
- ***The Multiplier Effect and Participant Dynamics:** The implementation of toxicity is rarely limited to a dyad; it necessitates a network of "third parties." Generators and mediators utilize individual or group "multipliers"—active supporters or passive observers—to escalate the toxic content. This thesis posits that phenomena like shaming and bullying are socially contingent, requiring a "crowd" or audience to validate and sustain the toxic cycle [9].*
- ***Socio-Structural and Cultural Genesis:** Toxicity often originates from institutional or structural factors rather than mere individual pathology. The researcher identifies "negative selection" and environment-forming factors (e.g., in penitentiary or academic settings) as hidden drivers of toxicity. Conversely, overt structural toxicity may manifest as "academic banditry" or group-based bullying rooted in deviantophile subcultures [9].*
- ***Environmental and Body-Oriented Manifestations:** The scope of toxicity extends beyond verbal interaction to include "environmental-spatial neglect" and body language. This includes the deliberate construction of non-ecological, unhygienic, or inconvenient spaces as a form of active-constructive toxicity [9].*
- ***Taxonomy of Temporal and Strategic Action:** Toxic manifestations are categorized by their strategic orientation:*

1. ***Impulsive Actions/Omissions:** Characterized by non-selectivity and a lack of long-term direction (e.g., situational emotional outbursts or bystander apathy).*
2. ***Strategically Oriented Programs:** Deliberate, long-term projects such as bossing, bullying, or calculated ignoring designed to demoralize subjects and inflict reputational costs over a sustained time perspective.*

Conclusion:

By moving beyond a purely behavioral view, this study frames toxic communication as a complex, multi-level phenomenon influenced by strategic intent, social architecture, and spatial environments [9].

Based on the **Conclusions** *section you provided, here are the final key points to add to your thesis summary:*

- ***Dual Semantic Definitions:*** *The concept of "toxic communication" operates on two levels. In the* ***narrow (etymological) sense****, it acts as an external "poison" causing acute psychological or group-level destructive reactions. In the* ***socio-communicative sense****, it is a form of destructive activity that actively impairs socialization, psychophysical health, and social stability[9].*
- ***Distinction from Manipulation:*** *To avoid conflating toxicity with simple manipulation or general psycho-destruction, it must be viewed as a broader spectrum. It includes both overt harm and* ***latent/disguised influences*** *that may not be immediately recognizable as attacks [9].*
- ***Diagnostic Indicators of Toxicity:*** *The research concludes that toxicity is often identified through specific emotional and behavioral markers.*
  - ***On the producer side:*** *Hyper-controlling behavior, hypo-protection, envy, and greed [9].*
  - ***On the recipient side:*** *Persistent states of resentment, humiliation, chronic stress, anxiety, guilt, and emotional exhaustion [9].*

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PROSPECTS OF APPLYING CINEMATHERAPY IN MARITAL THERAPY FOR COUPLES WITH DEVIANT SEXUAL BEHAVIOR OF ONE PARTNER

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ПЕРСПЕКТИВЫ ПРИМЕНЕНИЯ ФИЛЬМОТЕРАПИИ В РАБОТЕ С СУПРУЖЕСКИМИ ПАРАМИ ПРИ ДЕВИАНТНОЙ СЕКСУАЛЬНОСТИ ОДНОГО ИЗ ПАРТНЁРОВ

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Abstract
The paper analyzes the prospects of applying film therapy (cinematherapy) as an adjunct method in psychological work with married couples in which one partner demonstrates deviant sexual preferences or compulsive sexual behavior. The theoretical mechanisms of the method, its potential benefits, and ethical constraints are examined. It is demonstrated that film therapy helps reduce shame and stigma, enhances sexual communication, and promotes relationship harmonization. The need for further empirical studies in this field is emphasized.

Аннотация
Статья посвящена анализу перспектив применения фильмотерапии как вспомогательного метода психологической помощи супружеским парам, в которых один из партнёров проявляет девиантные сексуальные предпочтения или признаки компульсивного сексуального поведения. Рассмотрены теоретические механизмы метода, его перспективы и этические ограничения. Показано, что фильмотерапия может снижать уровень стыда, улучшать сексуальную коммуникацию и способствовать гармонизации отношений. Обоснована необходимость дальнейших эмпирических исследований в данной области.

Keywords: *film therapy, cinematherapy, deviant sexual behavior, compulsive sexual behavior, couples therapy.*
Ключевые слова: *фильмотерапия, кинотерапия, девиантное сексуальное поведение, компульсивное сексуальное поведение, супружеская терапия.*

Введение

Девиантная сексуальность и компульсивное сексуальное поведение одного из супругов являются значимыми факторами дестабилизации брачных отношений. Согласно МКБ-11, компульсивное сексуальное поведенческое расстройство (6C72) характеризуется стойкой утратой контроля над сексуальными импульсами и продолжением поведения несмотря на выраженные негативные последствия (World Health Organization, 2019). В свою очередь, парафильные расстройства диагностируются только при наличии клинически значимого дистресса или риска вреда для других лиц.

Независимо от нозологической квалификации, наличие атипичных сексуальных предпочтений у одного из партнёров часто приводит к накоплению стыда, нарушению сексуальной коммуникации и эмоциональному дистанцированию в паре (Менделевич, 2025; Егоров, 2021).

Традиционные методы психотерапии в таких случаях нередко встречают выраженное сопротивление. В связи с этим возрастает интерес к вспомогательным методам, способным снижать защитные реакции и создавать безопасное пространство для обсуждения интимных тем. Одним из таких методов выступает фильмотерапия.

Современные методы терапии пар

Современные подходы к терапии пар, в которых один из партнёров имеет девиантные сексуальные предпочтения или признаки сексуальной аддикции, опираются на интегративные модели. Теоретической основой служит модель I-PACE (Interaction of Person-Affect-Cognition-Execution), которая объясняет развитие поведенческих аддикций через взаимодействие личностных особенностей, аффективных реакций, когнитивных процессов и нарушений исполнительных функций (Brand et al., 2025). Согласно этой модели, эффективная терапия должна *воздействовать одновременно на эмоциональную, когнитивную и поведенческую сферы, а также учитывать влияние партнёрских отношений*

Теоретические механизмы фильмотерапии

Фильмотерапия основана на нескольких ключевых психологических механизмах:

- идентификация с персонажами, позволяющая снизить угрозу для «Я»;

- проекция собственных конфликтов на экранных героев;

- катарсис — эмоциональная разрядка;

- социальное научение через наблюдение за моделями поведения (Eğeci, 2017).

Важно подчеркнуть, что терапевтический эффект обеспечивает не сам просмотр, а структурированное обсуждение фильма под руководством специалиста (Rocha & Genöz, 2017). Мета-анализы подтверждают положительное влияние кинотерапии на эмоциональное состояние и межличностные отношения, однако отмечают преобладание качественных исследований и недостаток рандомизированных контролируемых испытаний (Tardivo et al., 2022).

Фильмотерапия в работе с парами при девиантной и компульсивной сексуальности

При работе с парами, где один из партнёров имеет девиантные сексуальные предпочтения или признаки компульсивного поведения, фильмотерапия может выполнять следующие функции:

- создание безопасного символического пространства для обсуждения сложных тем (власть, контроль, границы, согласие, стыд);

- психообразование через наглядную демонстрацию динамики отношений;

- тренировка сексуальной коммуникации в менее тревожном контексте;

- снижение сопротивления терапии (Alizadeh et al., 2018).

Особенно перспективным представляется использование кинотрилогии «Пятьдесят оттенков серого», которая позволяет прорабатывать темы доминирования-подчинения, установления границ и преодоления стыда. Совместный просмотр и последующий терапевтический разбор сцен способствуют нормализации переживаний и развитию навыков открытого диалога.

Этические ограничения

Применение фильмотерапии требует высокой клинической компетентности специалиста в области сексологии и парной терапии. Необходимо тщательно подбирать материал, избегая фильмов, романтизирующих принуждение или нарушение согласия. Метод противопоказан в случаях активного сексуального насилия или принуждения в паре. Особое внимание следует уделять риску ценностного смещения терапевта.

Заключение

Фильмотерапия обладает значительным потенциалом как вспомогательный метод психологической помощи супружеским парам с девиантной и компульсивной сексуальностью. Она позволяет снижать уровень стыда, улучшать сексуальную коммуникацию и способствовать гармонизации отношений. Перспективы развития направления связаны с разработкой стандартизированных протоколов и проведением эмпирических исследований эффективности метода.

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Sociological sciences

DIGITALIZATION AND INCLUSIVITY IN EDUCATION: A NEW MODEL OF SOCIAL INTEGRATION

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Abstract

The rapid development of digital technologies has significantly transformed modern education systems, creating new opportunities for accessibility, participation, and social inclusion. Digitalization in education has become a crucial factor in promoting inclusive learning environments where individuals from diverse social, economic, and physical backgrounds can equally benefit from educational resources. This study examines the relationship between digitalization and inclusive education from a sociological perspective, focusing on how technological innovation contributes to social integration and educational equality. The article analyzes the role of digital platforms, assistive technologies, online learning environments, and digital policies in reducing educational inequalities and supporting marginalized groups, including students with disabilities, rural populations, and economically disadvantaged learners. At the same time, the study highlights existing challenges such as the digital divide, unequal access to technological infrastructure, lack of digital literacy, and institutional barriers that may limit the effectiveness of inclusive education. Using a theoretical and analytical approach, the paper explores how digital transformation reshapes traditional educational structures and creates a new model of social integration based on equal opportunity and participation. The findings suggest that successful digital inclusion requires not only technological advancement but also strong social policies, teacher preparedness, and institutional commitment to equity. The study concludes that digitalization, when implemented inclusively, can serve as a powerful instrument for social justice and sustainable educational development.

Keywords: inclusive education, digitalization, social integration, educational inequality, digital divide, social inclusion, digital learning, educational sociology

Introduction

In the twenty-first century, education has undergone significant transformation under the influence of rapid technological development, globalization, and changing social structures. Digitalization has become one of the most powerful forces reshaping educational systems worldwide, influencing not only teaching methods and learning environments but also access to education and social participation. The integration of digital technologies into education has shifted traditional classroom models toward more flexible, accessible, and learner-centered systems. At the same time, inclusive education has gained increasing importance as societies seek to ensure equal opportunities for all learners regardless of disability, socioeconomic background, gender, ethnicity, or geographic location.

Inclusive education is based on the principle of equal participation and the removal of barriers to learning. According to Mintz et al. (2024), inclusion is not limited to physical access but also involves meaningful participation and social integration within educational environments. In this context, digitalization functions both as an opportunity and a challenge. Digital tools such as online learning platforms, artificial intelligence, and assistive technologies can enhance accessibility and personalization, while unequal access may deepen educational inequalities.

The COVID-19 pandemic accelerated digital transformation and exposed the realities of the digital divide. The OECD (2023) defines the digital divide as unequal access to digital infrastructure, skills, and connectivity, all of which directly affect educational participation. This period particularly highlighted inequalities among students from rural areas, low-income families, and learners with disabilities, making digital access a key determinant of educational continuity.

From a sociological perspective, education is not only a system of knowledge transmission but also a mechanism of socialization and social mobility. Classical theorists such as Durkheim emphasized education as a tool of social cohesion, while Bourdieu highlighted its role in reproducing social inequality through unequal distribution of cultural and social capital. In the digital era, these inequalities are *reinforced through digital literacy gaps and unequal access to technological resources, which function as new forms of capital shaping educational success.*

Digital inclusion refers to ensuring equitable access to and effective use of information and communication technologies. Hamburg and Lütgen (2019) argue that digital inclusion is essential for modern education systems, as learning increasingly depends on technological access. However, without targeted policy interventions, digitalization may reproduce rather than reduce inequality. Similarly, CAST (2021) emphasizes that inclusive education requires Universal Design for Learning (UDL), ensuring that learning environments are accessible to all students from the outset.

Students with disabilities are particularly affected by the quality of digital inclusion. Assistive technologies such as screen readers, captioning systems, and adaptive platforms significantly enhance accessibility when properly implemented. Sakharova et al. (2024) highlight that digital transformation improves participation only when accessibility is systematically integrated into educational design rather than applied as an afterthought.

Geographical inequality remains another critical issue. Rural and remote areas often suffer from limited internet access and weak digital infrastructure, which restricts equal participation in online learning environments. Studies confirm that the urban–rural digital gap continues to shape educational inequality in many regions, particularly in developing contexts (Ali et al., 2024). This reinforces the idea that digital inclusion is closely linked to broader structural inequalities.

The rise of artificial intelligence introduces additional challenges, particularly regarding algorithmic bias and unequal representation. Eubanks (2018) warns that automated systems can reproduce and even intensify social inequalities when they are designed without critical attention to social context and fairness. Therefore, digital education must also be understood as an ethical and political issue, not only a technological one.

Overall, digitalization can contribute to inclusive education only when supported by equitable access, institutional commitment, and inclusive policy frameworks. The central argument of this study is that digital transformation has the potential to function as a new model of social integration, but only if it is guided by principles of social justice, accessibility, and equality.

The Role of Digital Technologies in Promoting Inclusive Education

Digital technologies have become one of the most influential instruments in transforming modern education systems and promoting inclusive learning environments. Their role extends beyond simple technological support; they reshape access to knowledge, participation in learning processes, and the social integration of diverse student groups. Inclusive education aims to provide equal learning opportunities for all individuals regardless of physical ability, socioeconomic status, language background, or geographical location (OECD, 2023). In this context, digital technologies serve as both practical tools and social mechanisms that help reduce educational barriers and strengthen participation.

One of the most important contributions of digitalization to inclusive education is improved accessibility. Traditional educational systems often create structural limitations for students with disabilities, particularly in physical mobility, communication, and access to learning materials. Digital tools such as screen readers, speech-to-text software, captioning systems, text magnifiers, and accessible learning management systems significantly improve participation. According to UNESCO (2023), assistive technologies are essential components of inclusive education because they support independent learning and equal access to educational content.

Online learning platforms have also expanded opportunities for inclusion by creating flexible and personalized learning environments. Research shows that asynchronous learning opportunities reduce participation barriers and provide more individualized learning experiences (Dhawan, 2020). From a sociological perspective, Hamburg and Lütgen (2019) argue that digital inclusion is essential for educational equity because participation increasingly depends on technological access.

Artificial intelligence (AI) has introduced new possibilities for adaptive and personalized learning. Holmes et al. (2022) emphasize that AI can improve inclusive education when it supports differentiated instruction. However, Eubanks (2018) warns that algorithmic systems may reproduce existing inequalities if not critically designed.

Universal Design for Learning (UDL) has become a central pedagogical approach in digital inclusive education (CAST, 2021). Digital platforms make UDL more achievable by offering multiple means of representation, engagement, and expression.

Teacher preparedness plays a critical role in determining whether digital technologies truly promote inclusion. Sakharova et al. (2024) highlight that digital transformation improves accessibility only when it is systematically implemented within inclusive educational design.

Digital communication technologies also strengthen social interaction and collaborative learning. Van Dijk (2020) explains that digital skills and access function as new forms of capital shaping social participation, which directly affects inclusion in education.

At the policy level, the European Commission's Digital Education Action Plan highlights digital inclusion as a key component of educational equity (European Commission, 2021).

Despite these opportunities, inequalities persist, particularly in rural and disadvantaged regions. Studies confirm that urban–rural digital gaps continue to limit equal participation in education (Ali et al., 2024).

In conclusion, digital technologies offer significant potential for strengthening inclusive education, but their effectiveness depends on addressing structural inequalities and ensuring equitable access.

Challenges of Digital Inequality and Social Exclusion

Although digitalization creates significant opportunities for inclusive education, it also produces serious challenges related to digital inequality and social exclusion. The idea that technology automatically leads to educational equality is often misleading because access to digital tools is distributed unevenly across social groups. Differences in income, geographical location, disability status, digital literacy, and institutional support shape who benefits from digital education and who remains excluded. From a sociological perspective, these inequalities reflect broader patterns of social stratification and demonstrate that digital transformation can reproduce existing forms of disadvantage if inclusion is not intentionally prioritized.

One of the most visible problems is the digital divide, which refers to unequal access to devices, internet connectivity, and technological infrastructure. Students from low-income families often lack personal computers, stable internet access, or quiet learning environments necessary for effective online education. During the COVID-19 pandemic, this issue became especially visible as millions of students were unable to participate fully in remote learning. According to UNESCO (2022), students from economically disadvantaged households experienced significantly higher risks of educational interruption and academic loss due to limited digital resources. In this sense, digital exclusion becomes a direct form of educational exclusion, reinforcing poverty and limiting future social mobility.

Geographical inequality is another major factor contributing to digital exclusion. Rural and remote areas frequently suffer from weak internet infrastructure, limited access to modern devices, and fewer opportunities for digital skills development. Students living in such areas often face disadvantages compared to their urban peers, even when formal educational access exists. This urban-rural digital gap affects not only academic achievement but also long-term social integration because digital competence increasingly determines participation in higher education and labor markets. Research on developing societies shows that rural students are more likely to experience interrupted online learning and reduced educational engagement due to infrastructural limitations (Ali et al., 2024).

Digital literacy also represents a critical dimension of inequality. Access to technology alone does not guarantee meaningful participation if students and teachers lack the skills to use digital tools effectively. Digital literacy includes the ability to search for information, evaluate online sources, communicate responsibly, and use educational platforms productively. Learners from socially disadvantaged backgrounds often have fewer opportunities to develop these competencies, creating a second-level digital divide. Van Dijk (2020) argues that inequalities in digital skills are often more socially damaging than inequalities in physical access because they directly affect long-term educational and professional opportunities.

Students with disabilities may also face exclusion when digital systems are not designed according to accessibility standards. While assistive technologies can promote inclusion, many educational platforms remain inaccessible due to poor interface design, lack of captioning, incompatible software, or limited institutional support. In some cases, digitalization creates new barriers rather than removing old ones. For example, online examinations without screen-reader compatibility may exclude visually impaired students despite the presence of general digital infrastructure. This demonstrates that inclusion requires accessibility by design, not simply the addition of technology after exclusion has already occurred.

Teacher readiness remains another serious challenge. Many educators are expected to use digital tools without sufficient training in inclusive pedagogy or technological adaptation. As a result, digital platforms may be used only for content delivery rather than for meaningful inclusion and differentiated *instruction. Teachers who are unfamiliar with accessibility features or adaptive technologies may unintentionally exclude students with special educational needs. Studies by the European Agency for Special Needs and Inclusive Education (2022) show that professional development in inclusive digital teaching remains insufficient in many educational systems, limiting the practical success of digital transformation.*

Social and cultural factors also influence digital exclusion. Language barriers, cultural representation, and algorithmic bias in educational technologies may disadvantage minority groups and non-dominant language speakers. Many digital learning resources are designed primarily for dominant linguistic and cultural contexts, reducing accessibility for students from diverse backgrounds. Artificial intelligence systems may also reproduce bias when training data reflects existing social inequalities. Scholars increasingly warn that algorithmic discrimination can create invisible forms of exclusion that are difficult to identify but deeply influential in shaping educational outcomes (Eubanks, 2018).

Institutional inequality further complicates inclusive digital education. Schools and universities differ greatly in financial resources, technological infrastructure, and policy commitment. Well-funded institutions can provide devices, accessible platforms, and professional development, while under-resourced schools struggle to maintain basic digital services. This institutional gap creates unequal educational experiences even within the same national education system. Consequently, inclusion becomes dependent not only on individual capacity but also on institutional privilege.

From a sociological viewpoint, these challenges show that digital inequality is not a purely technical problem but a structural issue connected to power, class, and social justice. Bourdieu's theory of capital helps explain how digital access and digital competence function as new forms of social capital that influence educational success. Students who possess technological resources and digital confidence gain advantages that extend beyond the classroom into employment and social participation. Those without such resources face cumulative disadvantage and deeper exclusion.

Therefore, overcoming digital inequality requires comprehensive policy interventions rather than isolated technological solutions. Governments must invest in universal internet access, affordable devices, accessible educational design, and teacher training programs. Educational institutions must adopt inclusive digital policies that prioritize equity rather than efficiency alone. Social inclusion in the digital era depends on recognizing technology as a social right rather than a private privilege.

In conclusion, digitalization can either reduce or deepen educational inequality depending on how it is implemented. The digital divide, limited digital literacy, inaccessible platforms, teacher preparedness gaps, and institutional inequality all threaten the goals of inclusive education. If these structural barriers remain unresolved, digital transformation may strengthen exclusion rather than inclusion. Sustainable inclusive education requires a sociological approach that addresses both technological access and the deeper social inequalities that shape educational participation.

Conclusion

Digitalization and inclusive education have become deeply interconnected in contemporary educational systems, shaping new possibilities for social integration and equal participation. As education increasingly moves beyond traditional classroom boundaries, digital technologies offer important opportunities to create more accessible, flexible, and learner-centered environments. Assistive technologies, online learning platforms, artificial intelligence, and Universal Design for Learning contribute significantly to reducing educational barriers and supporting students from diverse social, economic, and physical backgrounds. From a sociological perspective, these developments strengthen the role of education as a mechanism of social cohesion, mobility, and inclusion.

However, the relationship between digitalization and inclusion is not automatically positive. The presence of technology alone does not guarantee educational equality. The digital divide, unequal access to infrastructure, limited digital literacy, inaccessible platforms, and institutional disparities continue to create serious forms of exclusion. Students from low-income families, rural communities, and marginalized social groups often face structural disadvantages that prevent them from fully benefiting from digital education. In this context, digitalization may reproduce existing inequalities rather than eliminate them if social justice is not placed at the center of educational policy.

The sociological analysis presented in this article demonstrates that digital inclusion must be understood as both a technological and a social process. Equal access to devices and internet connectivity is only the first step; meaningful inclusion also requires teacher preparedness, accessible curriculum design, supportive institutional policies, and ethical governance of emerging technologies such as artificial intelligence. Educational systems must move beyond technical modernization and adopt a broader commitment to equity, participation, and human-centered development.

Furthermore, inclusive digital education should be viewed as a long-term investment in social sustainability. When all learners are given equal opportunities to participate and succeed, education becomes a stronger instrument for reducing poverty, promoting social mobility, and strengthening democratic participation. In contrast, when digital transformation is implemented without addressing inequality, it risks deepening social fragmentation and exclusion.

In conclusion, digitalization can serve as a new model of social integration only when it is guided by inclusive principles and supported by strong institutional responsibility. The future of education depends not simply on technological innovation, but on the ability of societies to ensure that innovation benefits everyone equally. Inclusive digital education is therefore not only an educational goal but also a fundamental requirement for social justice and sustainable development in the modern world.

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Technical sciences

DEVELOPMENT OF A MOBILE APPLICATION FOR AUTOMATING COMMUNICATION BETWEEN A COMPANY AND CLIENTS

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КОМПАНИЯ МЕН КЛИЕНТТЕР АРАСЫНДАҒЫ БАЙЛАНЫСТЫ АВТОМАТТАНДЫРУҒА АРНАЛҒАН МОБИЛЬДІ ҚОСЫМША ӘЗІРЛЕУ

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Abstract

This paper discusses the development of a mobile application designed to automate communication between a company and its clients. In the modern digital economy, prompt and effective customer interaction is one of the key factors of business success. The mobile application allows users to receive information, place orders, communicate with managers, receive notifications, and use intelligent assistant services. The paper describes the architecture, key functions, implementation advantages, and practical significance of the developed system.

Андатпа

Бұл жұмыста компания мен клиенттер арасындағы байланысты автоматтандыруға арналған мобильді қосымша әзірлеу мәселелері қарастырылған. Қазіргі цифрлық экономика жағдайында клиенттермен жедел әрі тиімді байланыс орнату бизнестің маңызды факторларының бірі болып табылады. Мобильді қосымша пайдаланушыларға ақпарат алу, тапсырыс беру, менеджермен байланысу, хабарлама алу және интеллектуалды көмекші қызметін пайдалану мүмкіндігін береді. Жұмыста жүйенің архитектурасы, негізгі функциялары, енгізу артықшылықтары және практикалық маңыздылығы сипатталған.

Keywords: mobile application, automation, customer service, CRM, business processes, push notifications, chatbot, artificial intelligence, digital technologies

Кілттік сөздер: мобильді қосымша, автоматтандыру, клиенттерге қызмет көрсету, CRM, бизнес-процестер, push-хабарлама, чат-бот, жасанды интеллект, цифрлық технологиялар.

Қазіргі уақытта компаниялар үшін клиенттермен тиімді байланыс орнату аса маңызды міндеттердің бірі болып табылады. Нарықтағы бәсекелестіктің күшеюі кәсіпорындарды қызмет көрсету сапасын арттыруға, клиент сұраныстарына жылдам жауап беруге және байланыс арналарының ыңғайлылығын қамтамасыз етуге итермелейді. Дәстүрлі тәсілдер — телефон қоңыраулары, электрондық пошта немесе кеңсе арқылы қызмет көрсету — уақыт шығынын көбейтеді және жеделдікті төмендетеді.

Зерттеу жұмысының өзектілігі: компаниялар үшін клиентпен сапалы байланыс орнату табыстың негізгі факторларының бірі болып саналады. Егер пайдаланушы сұранысына жедел *жауап алмаса немесе тапсырыс рәсімдеу барысында қиындықтарға тап болса, ол басқа компания қызметіне жүгінуі мүмкін. Сондықтан клиенттермен өзара әрекеттесудің автоматтандырылған жүйесін енгізу бәсекеге қабілеттілікті арттырудың маңызды тетігі ретінде қарастырылады.*

Мобильді қосымшалар осы міндетті шешудің тиімді құралы болып табылады. Олар пайдаланушыға ыңғайлы интерфейс, жедел байланыс арналары, автоматты хабарламалар, онлайн төлем және интеллектуалды көмекші қызметтерін ұсынады. Сонымен қатар, компания үшін клиенттердің мінез-құлқын талдау, сатылым көрсеткіштерін бақылау және маркетингтік стратегияны жетілдіру мүмкіндігін береді.

Осыған байланысты мобильді қосымшалар бизнесті цифрландырудың тиімді құралына айналды. Смартфондардың кең таралуы компанияларға клиентпен тәулік бойы байланыста болуға мүмкіндік береді. Арнайы мобильді қосымша арқылы пайдаланушы қажетті қызметті таңдай алады, тапсырыс береді, төлем жасайды, компания жаңалықтарын көреді және онлайн кеңес алады.

Компания мен клиент арасындағы байланысты автоматтандыруға арналған мобильді қосымшаның басты мақсаты — қызмет көрсету процесін оңтайландыру, уақытты үнемдеу және клиенттердің қанағаттану деңгейін арттыру. Мұндай жүйе компанияның ішкі жұмысын да жеңілдетеді, себебі өтінімдер автоматты түрде тіркеледі, сұраныстар базаға сақталады және статистика жүргізіледі.

Мобильді қосымшаның негізгі функциялары төмендегідей:

1. *Пайдаланушыны тіркеу және авторизациялау;*
2. *Компания туралы ақпарат беру;*
3. *Онлайн тапсырыс қабылдау;*
4. *Push-хабарламалар жіберу;*
5. *Чат немесе ЖИ-көмекші қызметі;*
6. *Кері байланыс және бағалау жүйесі;*
7. *Онлайн төлем жүйесі;*
8. *Жеке кабинет арқылы тапсырыстар тарихын көру.*

Қазіргі уақытта жасанды интеллект технологиялары клиенттік сервистерде кеңінен қолданылуда. Компания мен клиент арасындағы байланысты автоматтандыруда ЖИ келесі функцияларды орындай алады:

- *табиғи тілдегі сұрақтарды түсіну;*
- *автоматты жауап беру;*
- *клиентке дербестендірілген ұсыныстар ұсыну;*
- *сұраныстарды санаттарға бөлу;*
- *клиенттердің мінез-құлқын болжау;*
- *маркетингтік науқандардың тиімділігін талдау.*

Жүйеге енгізілген чат-бот немесе жасанды интеллект көмекшісі клиенттердің жиі қойылатын сұрақтарына автоматты түрде жауап береді. Бұл менеджерлердің уақытын үнемдеп, қызмет көрсету сапасын арттырады. Мысалы, жұмыс уақыты, баға, жеткізу мерзімі немесе акциялар туралы сұрақтарға жүйе бірден жауап қайтара алады.

Мобильді қосымшаны әзірлеуде заманауи технологиялар қолданылады. Мысалы, Flutter немесе React Native платформалары арқылы Android және iOS жүйелеріне бір уақытта қосымша жасауға болады. Серверлік бөлім үшін Node.js, деректер қорына Google Firebase немесе MySQL қолдануға болады. Ал чат-көмекші үшін OpenAI технологияларын пайдалануға мүмкіндік бар.

Жұмыс принципі келесідей жүзеге асады: клиент қосымшаға кіреді, қажетті қызметті таңдайды, өтінім жібереді. Өтінім компания жүйесіне автоматты түрде түседі. Жүйе клиентке өтінім қабылданғаны туралы хабарлама жібереді. Кейін тапсырыс мәртебесі өзгерген сайын автоматты хабарламалар келеді. Бұл процесс клиентке ыңғайлы әрі ашық қызмет көрсетуді қамтамасыз етеді.

Мұндай қосымшаның артықшылықтары өте көп. Біріншіден, клиентпен байланыс жылдамдайды. Екіншіден, адами қателіктер азаяды. Үшіншіден, компания шығындары төмендейді. Төртіншіден, клиенттердің сенімі мен адалдығы артады. Сонымен қатар, компания басшылығы статистикалық деректер арқылы қызмет сапасын талдап, тиімді шешімдер қабылдай алады.

Қауіпсіздік мәселесі де маңызды орын алады. Сондықтан жүйеде жеке деректерді қорғау, құпиясөздерді шифрлау, қауіпсіз төлем жүйесін қолдану және резервтік көшіру шаралары жүзеге *асырылуы тиіс. Бұл клиенттердің сенімін арттырып, жүйенің тұрақты жұмысын қамтамасыз етеді.*

Клиент деректерін қорғау қазіргі цифрлық жүйелер үшін аса маңызды талаптардың бірі. Сондықтан қосымшада келесі қауіпсіздік шаралары жүзеге асырылуы тиіс:

- *SSL шифрлау;*
- *екі факторлы аутентификация;*
- *резервтік көшіру;*
- *қауіпсіз төлем шлюздері;*
- *пайдаланушы келісімін сақтау.*

Бұл жұмыста компания мен клиенттер арасындағы байланысты автоматтандыруға арналған мобильді қосымша әзірлеудің маңыздылығы қарастырылды. Мұндай жүйе бизнес-процестерді жеңілдетуге, клиенттерге сапалы қызмет көрсетуге және компания тиімділігін арттыруға мүмкіндік береді.

Болашақта бұл қосымшаларға дауыс арқылы басқару, дербестендірілген ұсыныстар, интеллектуалды аналитика және толық ЖИ-қызметтер енгізу арқылы олардың мүмкіндігін кеңейтуге болады. Цифрлық технологиялардың дамуы компаниялар мен клиенттер арасындағы қарым-қатынасты жаңа деңгейге көтереді.

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DESIGN AND CREATION OF THE «LIBRARY» INFORMATION SYSTEM USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES

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«КІТАПХАНА» АҚПАРАТТЫҚ ЖҮЙЕСІН ЖАСАНДЫ ИНТЕЛЛЕКТ ТЕХНОЛОГИЯЛАРЫН ҚОЛДАНА ОТЫРЫП ЖОБАЛАУ ЖӘНЕ ҚҰРУ

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Abstract

This work is aimed at designing and creating a library information system using artificial intelligence technologies. The paper analyzes the information systems and intelligent technologies used in the field of education in the context of modern digital transformation and offers a comprehensive approach to creating a convenient, functional and intelligent library platform for users. An information system based on modern web technologies (HTML, CSS, JavaScript) and artificial intelligence tools allows you to reduce data processing time, optimize book search, and provide readers with quality services.

Аңдатпа

Бұл жұмыс «Кітапхана» ақпараттық жүйесін жасанды интеллект технологияларын қолдана отырып жобалау және құруға бағытталған. Жұмыста қазіргі цифрлық трансформация жағдайында білім беру саласында қолданылып жүрген ақпараттық жүйелер мен интеллектуалды технологиялар сарапталып, пайдаланушыларға ыңғайлы, функционалды және интеллектуалды кітапхана платформасын құрудың кешенді тәсілі ұсынылады. Заманауи веб-технологияларға (HTML, CSS, JavaScript) және жасанды интеллект құралдарына негізделген ақпараттық жүйе деректерді өңдеу уақытын қысқартуға, кітап іздеуді оңтайландыруға және оқырмандарға сапалы қызмет көрсетуге мүмкіндік береді.

Keywords: Information System, Electronic Library, artificial intelligence, web technologies, HTML, CSS, JavaScript, chatbot, database, digital transformation.

Түйінді сөздер: ақпараттық жүйе, электрондық кітапхана, жасанды интеллект, веб-технологиялар, HTML, CSS, JavaScript, чат-бот, деректер қоры, цифрлық трансформация.

Қазіргі таңда білім беру және мәдениет саласында цифрлық технологиялар қарқынды дамып келеді. Электрондық ресурстарға деген сұраныстың артуы кітапханалардың дәстүрлі қызмет көрсету форматын жаңғыртуды талап етеді. Қазіргі заманғы кітапхана тек кітап сақтау орны ғана емес, сонымен қатар ақпараттық, білім беру және цифрлық қызмет көрсету орталығы болып табылады. Осыған байланысты кітапхана жүйелерін автоматтандыру және интеллектуалдандыру маңызды мәселеге айналып отыр.

Жасанды интеллект технологиялары кітапхана саласында үлкен мүмкіндіктер береді. Мысалы, интеллектуалды іздеу жүйесі пайдаланушының сұранысына сәйкес кітаптарды автоматты түрде ұсына алады, ал чат-бот оқырмандардың сұрақтарына жедел жауап беріп, кітапты брондау немесе пайдалану ережелері туралы ақпарат береді. Сонымен қатар, деректерді талдау арқылы оқырмандардың қызығушылықтарын анықтап, жеке ұсыныстар жасауға мүмкіндік туады.

Ұсынылып отырған «Кітапхана» ақпараттық жүйесі HTML, CSS және JavaScript технологиялары негізінде жобаланды. HTML (Hypertext Markup Language) веб-беттердің құрылымын қалыптастыру үшін қолданылды. Ол кітаптар тізімі, авторлар бөлімі, жаңалықтар және пайдаланушы кабинеті сияқты бөлімдерді ұйымдастыруға мүмкіндік береді. CSS (Cascading Style Sheets) арқылы жүйенің визуалдық дизайны жасалып, түс схемасы, қаріптер, кітап карточкалары және адаптивті интерфейс анықталды. JavaScript веб-бетті интерактивті ету үшін қолданылып, кітап іздеу, фильтрация, онлайн брондау, рейтинг беру, сондай-ақ жасанды интеллект негізіндегі чат-бот функцияларын іске асырады.

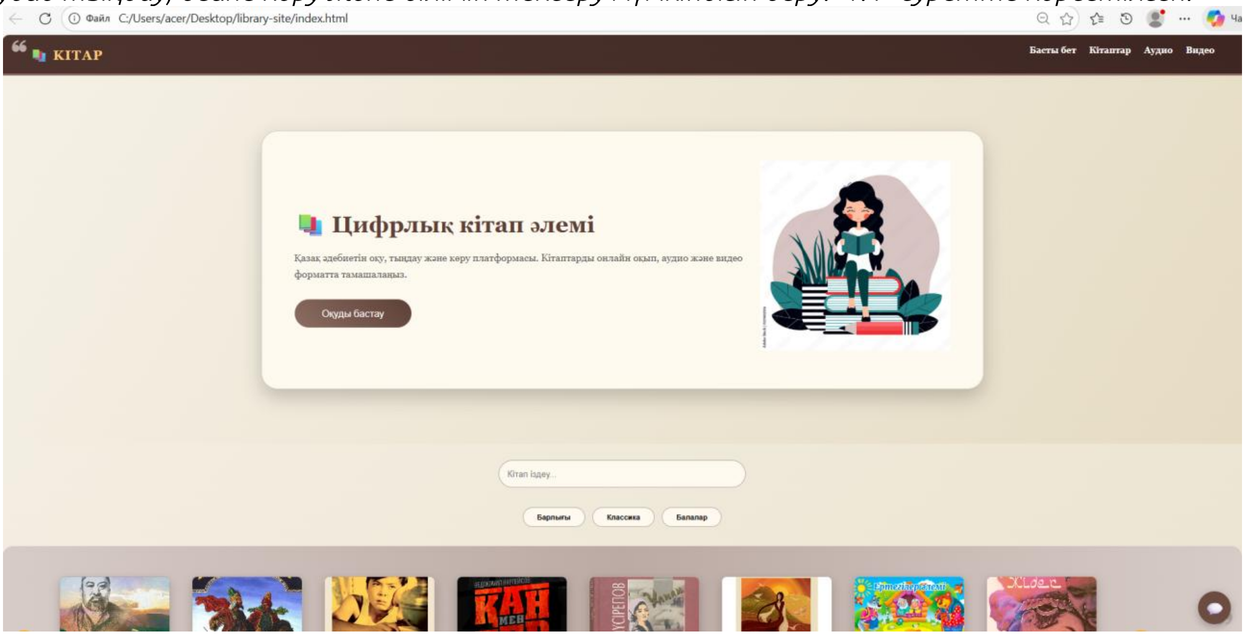
Жүйені жобалау барысында пайдаланушыға ыңғайлы интерфейс, қарапайым навигация және жылдам жұмыс істеу басты назарға алынды. Жасанды интеллект технологияларын енгізу арқылы кітапхана қызметін автоматтандыру, пайдаланушы тәжірибесін жақсарту және ақпаратқа қолжетімділікті арттыру көзделді.

«Кітапхана» ақпараттық жүйесін жасанды интеллект негізінде жобалау білім беру үдерісін цифрландыруға, кітапханалардың тиімділігін арттыруға және заманауи ақпараттық орта қалыптастыруға мүмкіндік береді.

Осы технологиялар негізінде жасалған ***KITAP электронды кітапхана веб-сайтының*** *негізгі терезесінде келесі бөлімдер орналасқан:*

1. ***Басты бет*** *– сайттың негізгі беті, платформа туралы қысқаша ақпарат және навигациялық мәзір орналасқан;*
2. ***Кітаптар*** *– электронды кітаптар тізімі, онлайн оқу мүмкіндігі;*
3. ***Аудио*** *– аудиокітаптарды тыңдау бөлімі;*
4. ***Бейне*** *– білім беру бағытындағы бейне материалдар;*
5. ***Тест*** *– білімді тексеруге арналған интерактивті тапсырмалар;*
6. ***Чат-бот*** *– пайдаланушыларға көмек көрсететін автоматтандырылған кеңесші модулі.*

Бұл бөлімде әзірленген ***KITAP электронды кітапхана веб-сайтының*** *құрылымы, функционалдық мүмкіндіктері және пайдаланушыға арналған интерфейс элементтері сипатталады. Сайттың негізгі мақсаты – пайдаланушыларға кітаптарды онлайн қарау, оқу, аудио тыңдау, бейне көру және білімін тексеру мүмкіндігін беру. 1.1- суретте көрсетілген.*



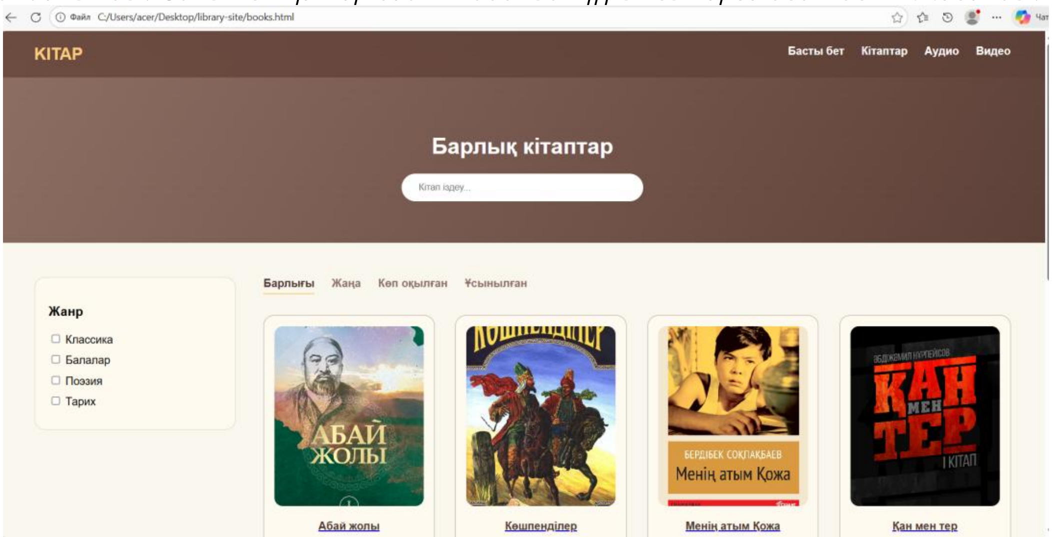
1.1 – сурет. Негізгі терезесі

Басты бет пайдаланушыны сайтпен таныстыратын негізгі интерфейс болып табылады. Бұл бөлімде сайт логотипі, навигациялық мәзір және қысқаша ақпарат орналасқан.

Навигациялық мәзір арқылы пайдаланушы:

- *кітаптарды қарау*
- *аудио тыңдау*
- *бейне материалдарды көру*
- *тест тапсырмаларын орындау*
- *пікір қалдыру мүмкіндіктеріне қол жеткізе алады.*

Басты бет визуалды түрде тартымды болуы үшін графикалық элементтер мен фондық дизайн қолданылды. Сонымен қатар сайт мобильді құрылғыларға бейімделіп жасалды.



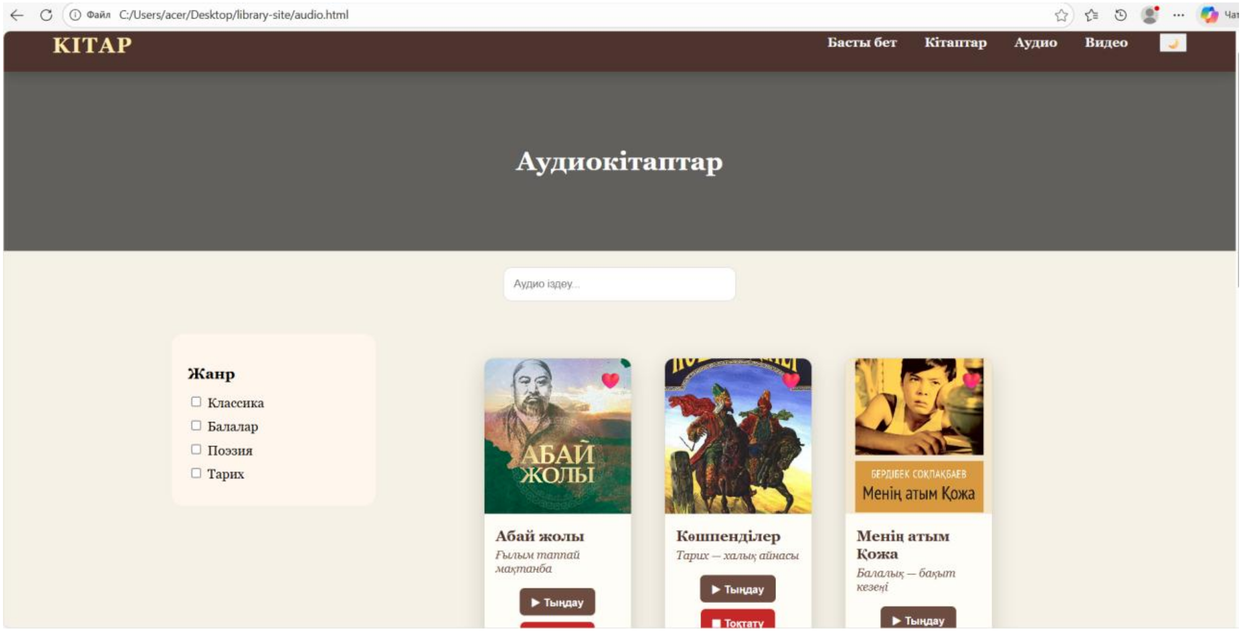
1.2 – сурет. Кітаптар терезесі

Кітаптар бөлімі – сайттың негізгі функционалдық бөлігі. Бұл бөлімде электронды кітаптар тізімі көрсетіледі. Әр кітап карточка түрінде ұсынылған.

Әр кітап туралы келесі мәліметтер көрсетіледі:

- *кітап атауы*
- *кітап суреті*
- *қысқаша сипаттамасы*
- *оқу батырмасы*

Пайдаланушы кітапты онлайн режимде оқи алады. Бұл бөлім оқу процесін жеңілдетуге бағытталған.



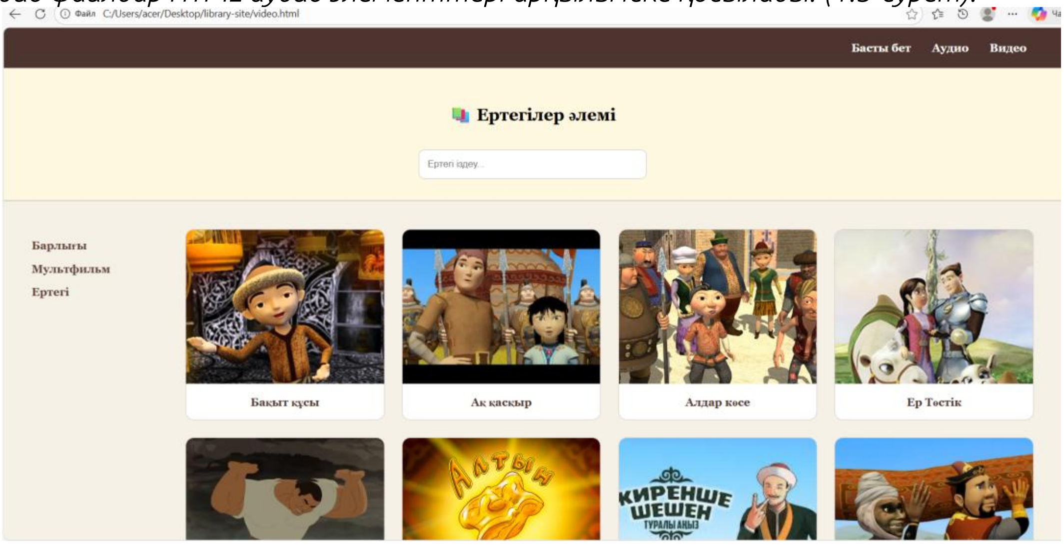
1.3 - сурет Аудио терезесі

Аудио бөлімінде пайдаланушылар кітаптарды тыңдай алады. Бұл бөлім оқу мүмкіндігі шектеулі немесе тыңдау арқылы ақпарат қабылдауды қалайтын пайдаланушылар үшін ыңғайлы.

Аудио бөлімінде:

- *аудио кітап атауы*
- *аудио басқару панелі*
- *тыңдау батырмасы орналасқан.*

Аудио файлдар HTML аудио элементтері арқылы іске қосылады. (1.3-сурет).



1.4 – сурет. Бейне терезесі

Бұл бөлімде білім беру бағытындағы бейне материалдар орналастырылған. Бейне сабақтар кітап мазмұнын түсіндіруге көмектеседі.

Бөлімде:

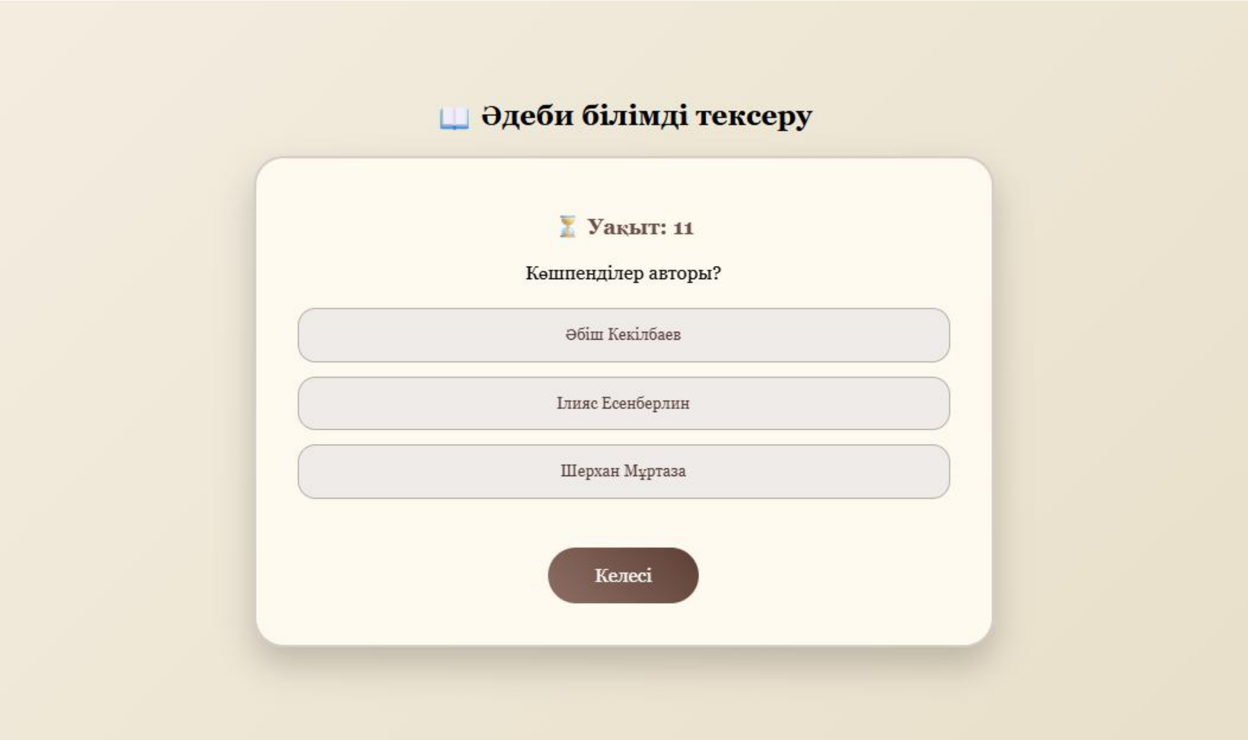
- *бейне атауы*
- *бейне ойнатқыш сипаттамасы көрсетіледі.*

1.5 – сурет. Чат-бот терезесі

KITAP веб-сайтында пайдаланушыларға жедел көмек көрсету мақсатында чат-бот модулі енгізілді. Чат-бот пайдаланушымен мәтіндік форматта байланыс орнатып, сайт бөлімдері туралы ақпарат береді және қажетті бөлімдерге бағыттайды.

Пайдаланушы чат терезесіне сұрақ енгізген кезде жүйе мәтінді талдап, кілт сөздер негізінде сәйкес жауап қайтарады. Мысалы, кітаптар, аудио немесе видео бөлімдері туралы сұрақтарға нақты бағыт көрсетеді.

Бұл модуль сайт навигациясын жеңілдетеді, пайдаланушы тәжірибесін жақсартады және цифрлық кітапхана қызметінің тиімділігін арттырады.



1.6 - сурет Тест тапсыру терезесі

Тест бөлімі *интерактивті форматта жасалған. Пайдаланушы сайттың тест бөлімін таңдаған кезде оған бірнеше сұрақ ұсынылады. Әр сұраққа бірнеше жауап нұсқасы беріледі және пайдаланушы дұрыс жауапты таңдай алады. Барлық сұрақтарға жауап бергеннен кейін жүйе нәтижені автоматты түрде есептеп көрсетеді.*

Тест модулі келесі функцияларды орындайды:

- *пайдаланушы білімін тексеру*
- *оқу материалын бекіту*
- *өзін-өзі бағалау мүмкіндігін беру*
- *нәтижені автоматты есептеу*

Бұл модуль JavaScript бағдарламалау тілі арқылы жүзеге асырылды. Бағдарлама пайдаланушы таңдаған жауаптарды тексеріп, дұрыс жауаптар санын есептейді. Нәтиже экранда пайыз немесе балл түрінде көрсетіледі.(1.6 - сурет)

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THE ROLE OF ARTIFICIAL INTELLIGENCE IN MINIMIZING ARTIFACTS AND QUALITY CONTROL IN INDUSTRIAL ULTRASONIC TESTING

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Abstract
Because it can detect internal flaws without compromising structural integrity, industrial ultrasonic testing is widely utilized in materials engineering, industry, and energy. However, the reliability of ultrasonic testing is greatly impacted by the presence of artifacts caused by intricate structures, material heterogeneity, coupling variations, and equipment limitations. These artifacts could obscure defect echoes or produce false indicators, which would complicate decision-making and reduce overall inspection accuracy. Recent advances in artificial intelligence have created new opportunities for more dependable artifact control and quality assurance. This study reviews the characteristics of common artifacts in industrial ultrasonic testing, the limitations of existing mitigation techniques, and a proposed AI-enhanced quality control loop designed to enable more dependable and understandable signal interpretation during inspection. Additionally, incorporating artificial intelligence-supported monitoring into ultrasonic procedures may lessen reliance on human parameter adjustment. Intelligent models can detect minute discrepancies in coupling pressure, probes positioning, or signal-to-noise conditions and make quick changes before these problems become serious artefacts. Early detection reduces repeat scans, increases overall inspection efficiency, and stabilises measurement quality. Crucially, these features can be used without changing long-standing industrial practices, enabling AI modules to serve as additional tools for decision-making rather than as a substitute for skilled inspectors. The application of artificial intelligence for pattern discrimination, in which algorithms learn to distinguish between structurally significant echoes and artefact signals that resemble defect indications, is another exciting development. This reduces false alarm rates and strengthens the consistency of fault evaluations across several operators and inspection cycles by offering a more objective basis for categorising confusing signal locations. The implementation of technologies like artificial intelligence-driven assurance systems becomes more practical and scalable as industry embrace digital pipelines and standardised data collecting formats. In this regard, the suggested framework offers a workable approach to improving industrial ultrasonic testing reliability while maintaining the adaptability needed for different materials, shapes, and inspection settings. Finally, opportunities for adaptive inspection techniques are created by incorporating artificial intelligence insights into commercial ultrasonic inspection. AI can mitigate artefact creation before it affects defect interpretation by continuously analysing real-time signal properties and suggesting small changes to collection variables like probe placement, signal gain, or filtering settings. This proactive method boosts trust in the assessment of difficult components and improves inspection reproducibility. Additionally, the framework allows for scalable deployment in a variety of industrial environments, tolerating differences in surface conditions, material kinds, and geometric complexity without necessitating significant reconfiguration or retraining. When taken as a whole, these improvements show that artificial intelligence-based quality control not only increases the accuracy of acoustic observations but also makes nondestructive testing procedures more effective, reliable, and impartial.

Keywords: *Industrial ultrasonic testing; artifacts; non-destructive testing; quality control; artificial intelligence; signal interpretation.*

Introduction

One of the most well-known non-destructive assessment methods for identifying structural abnormalities in metals, plastics, and attached structures is ultrasonic analysis (UT). The capacity of higher-frequency sound waves to pass through a material and produce reflections that match structural elements determines how effective it is. Even though the theoretical underpinnings of acoustic scanning are widely recognised, a number of signal degradation sources known as artefacts frequently make practical implementation difficult. Grain noise, complicated surface curvature, incorrect transducer coupling, and mode conversion are some of the causes of these artefacts. Artefacts can mimic real flaws or conceal *their existence if they are not adequately identified. This can result in needless re-inspections, unclear reports, and in extreme situations, incorrect acceptance judgements. Artefact control becomes a crucial part of quality assurance in industrial settings, where examination may be impacted by time constraints, changing conditions on the surface, and operator experience. Conventional mitigation strategies mostly rely on operator interpretation and manual instrument setup adjustments, both of which add variability. Artificial intelligence is being used to provide more consistent artefact authentication and immediate decision assistance as businesses gradually adopt digital inspection workflows. As a foundation for talking about AI-enabled methods to increase signal reliability, this paper offers an organised summary of the underlying ideas, typical artefacts, and present difficulties. In industrial settings, such as manufacturing, energy generation, and materials engineering, ultrasonic testing (UT) is a popular non-destructive evaluation method. Without jeopardising the strength of components, it enables the detection of interior discontinuities such inclusions, voids, and cracks. The efficiency of the technique depends on the movement of higher-frequency ultrasounds into a material, where reflection from interfaces, boundaries, and flaws are recorded and examined. Although UT has strong theoretical underpinnings, its actual use frequently encounters difficulties that can seriously impair measurement precision and dependability. Artifacts—unintentional signal characteristics that can either conceal real faults or mimic flaw indications—are a significant source of uncertainty in commercial Ndt. A number of factors can lead to artefacts, such as complicated component forms, coarse-grained or heterogeneous materials, irregular surface geometries, and inadequate interfacing between the transducers and material. These factors complicate the interpretation process by introducing differences in the received echoes' amplitude, phase, and time. These artefacts can occasionally be hard to tell apart from real flaws, which could result in unclear inspection findings and possibly needless rework or extra testing. Variability is further increased by the reliance on operator expertise. Inspections become subjective since changes to the probe angle, applied pressure, gain, and filter settings frequently depend on human judgement. Decision-making can be influenced by operator experience, environmental factors, and time restrictions, especially in high-throughput industrial operations where inspections need to be dependable and quick. As a result, even highly skilled inspectors may evaluate the same component differently, underscoring the need for more standardised and objective evaluation techniques. These issues have started to be addressed by recent developments in artificial intelligence and digital signal processing. AI-based methods have the capacity to track inconsistencies in real time, find patterns connected to artefacts, and give operators useful feedback. It is feasible to decrease human error, increase reproducibility, and boost the general dependability of inspections by incorporating AI tools into the UT procedure. Crucially, these technologies can serve as auxiliary instruments, preserving the inspector's supervision while enhancing judgement with unbiased data analysis. The objective of this work is to present a thorough overview of the basic concepts of commercial ultrasonic measurement, the typical artefacts that impact signal analysis, and the shortcomings of existing mitigation techniques. Building on this paradigm, it presents a hypothetical artificial intelligence-based quality control framework intended to reduce the impact of artefacts and increase inspection consistency. Through this debate, the study demonstrates how intelligent assistance can support safer and higher-quality production and maintenance operations by facilitating more dependable, efficient, and standardised industrial UT practices.*

1. Fundamentals of Industrial Ultrasonic Testing

Industrial ultrasonic testing (UT) is widely used in a variety of industries, such as manufacturing, energy, and aerospace, for the non-destructive assessment of metallic, composite, and welded components.

Without sacrificing structural integrity, the method uses high-frequency acoustic waves—usually produced by piezoelectric transducers—to probe materials and find internal irregularities. These waves are reflected at interfaces with different acoustic impedances, creating echoes that reveal information about the size, position, and existence of possible flaws. The accuracy and clarity of UT measurements in industrial settings are influenced by a number of factors. Grain structure, anisotropy, and surface roughness are examples of material characteristics that can scatter and attenuate ultrasonic waves, changing the received echoes' amplitude and temporal pattern. Additional complications like mode conversions and numerous reflections are introduced by component geometry, which includes curvature, edges, and welds. To maximise energy transfer and reduce false signals, the transducer and test surface must be properly coupled. Gels, oils, or water-based couplants are commonly used to do this, and it necessitates precise control over probe orientation and applied pressure. Accurately analysing UT signals requires an awareness of these basic concepts. In reality, artefacts can be produced by even little variations in material characteristics, coupling circumstances, or acquisition parameters. These artefacts can mask real *problems or imitate signs of flaws. Understanding the origins and behaviour of these artefacts lays the groundwork for creating mitigation methods and prepares the way for using cutting-edge techniques, including artificial intelligence, to improve inspection consistency and reliability.*

A popular non-destructive evaluation (NDE) method that can identify internal flaws in a range of materials, such as metals, composites, and welded constructions, without causing damage is industrial ultrasonic testing (UT). The technique depends on the propagation of high-frequency acoustic waves produced by piezoelectric transducers, usually in the range of 1 to 10 MHz. These waves are partially reflected back to the transducer as echoes when they come into contact with boundaries in the material where acoustic impedance changes, such as vacancies, inclusions, or cracks. Inspectors can determine the existence, location, and extent of internal discontinuities by examining the time-of-flight, amplitude, and form of these echoes. A number of factors affect how successful UT is in industrial settings. Grains measurement, asymmetry, and internal irregularity are examples of properties of materials that can scatter and attenuate waves, decreasing the clarity of a signal. Smoothness, shape, and contamination are examples of surface characteristics that might affect transducer coupling, which is essential for effective energy transfer. Gels, oils, or water-based media are commonly used to ensure proper coupling, which necessitates precise control over probe orientation and pressure. Variations in any of these parameters have the potential to cause measurement variability and change the received echo patterns. Weld beads, edges, and multi-layered sections are examples of geometric elements that enhance complexity by producing multiple reflections, mode conversions, and diffracted waves. Because spurious echoes may appear at locations that resemble real faults, these effects might make interpretation more difficult. Differentiating between real flaws and artefacts requires an understanding of how wave propagation interacts with such features. Furthermore, operational factors have an impact on the quality of signal capture in industrial UT. Measurement inconsistencies are caused by differences in instrument performance, ambient noise, and transducer handling. Significant variations in echo amplitude and shape can result from even little adjustments to probe alignment or pressure, underscoring the significance of standard operating procedures and operator skill. By identifying these contributing elements, inspection settings can be optimised and sophisticated solutions to improve dependability and decrease human-dependent variability, including artificial intelligence-assisted quality control, can be put into practice. Practitioners may more precisely analyse signals, foresee typical sources of mistake, and put mitigation strategies in place by developing a strong grasp of these essential elements of industrial ultrasonic testing. In complicated industrial applications, obtaining consistent, dependable, and repeatable inspection results depends on this basis.

2. Common Artifacts in Industrial Ultrasonic Testing

Often referred to as artefacts, industrial ultrasonic testing signals frequently have characteristics that do not match real material flaws. These artefacts can provide a serious problem for inspectors by hiding real flaw indicators, imitating defects, or creating uncertainty in signal interpretation. Comprehending the origins and features of these artefacts is crucial for precise assessment and for formulating tactics to reduce their influence.

Microstructure-induced acoustic noise is one of the main causes of artefacts in industrial UT. Ultrasonic waves in coarse-grained metals, like cast steel or forged alloys, are dispersed by individual grains, resulting in erratic variations in phase and amplitude. In addition to lowering the signal-to-noise ratio (SNR), this grain noise can mask tiny fault echoes, particularly those that are deep within the material. Grain-induced artefacts usually become more intense with frequency, which increases the sensitivity of high-frequency examinations to such noise. The ultrasonic testing setup is shown figure 1.

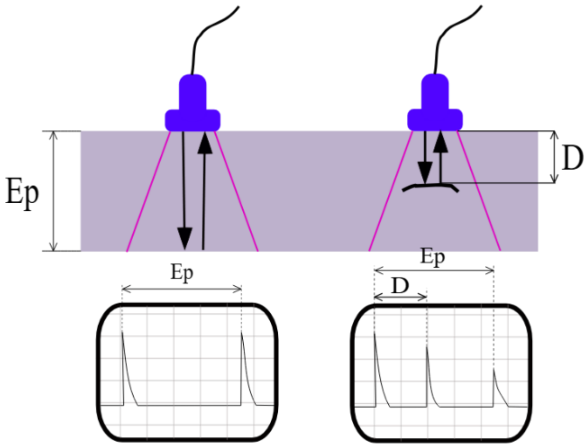

Figure 1. The ultrasonic testing

When incident ultrasonic waves interact with boundaries at non-perpendicular angles, some of the longitudinal wave energy is converted into shear waves or vice versa. This process is known as mode conversion. These converted waves can produce reflections that show up in unexpected places on the A-scan or B-scan screens because they move at various speeds. In a same vein, geometric elements like corners, edges, and weld beads create several reflections that could be mistaken for discontinuities. These artefacts are especially difficult to discern between real faults and spurious echoes in complex geometries, where rigorous investigation is necessary. For ultrasonic energy to be transmitted effectively, good transducers connection is essential. Echo frequency and waveform can be significantly altered by differences in connection pressure, uneven gel application, or air gaps between the transducer and the material surface. These discrepancies could show up as erratic signals that mimic or mask actual flaws. In field inspections, when operator handling or ambient circumstances may differ, coupling-related artefacts are frequently seen.

When ultrasonic waves repeatedly reflect within the test material, transducer wedge, or couplant layer, repeated or delayed echoes are produced. This phenomenon is known as reverberation. Interpretation is made more difficult by the fact that these "ghost" echoes frequently appear as copies or altered versions of real signals. Because numerous reflections are nearly always present in multilayered components or assemblies with parallel surfaces, reverberation artefacts are especially common. Strong localised reflections can be produced by edges, corners, weld reinforcements, and sudden geometric changes. If the inspector is unfamiliar with their typical patterns, these reflections could be mistaken for flaws. Signal artefacts can also be caused by uneven or rough surfaces, which can disperse waves in an unpredictable way. Additional artefacts may be introduced into the recorded ultrasonic signals by external noise sources, electrical interference, and device performance fluctuation. The received waveform may be changed by temperature variations, vibration, and electromagnetic interference, and measurement errors may be made worse by outdated or incorrectly calibrated equipment. The block diagram of the ultrasound test is shown in Figure 2.

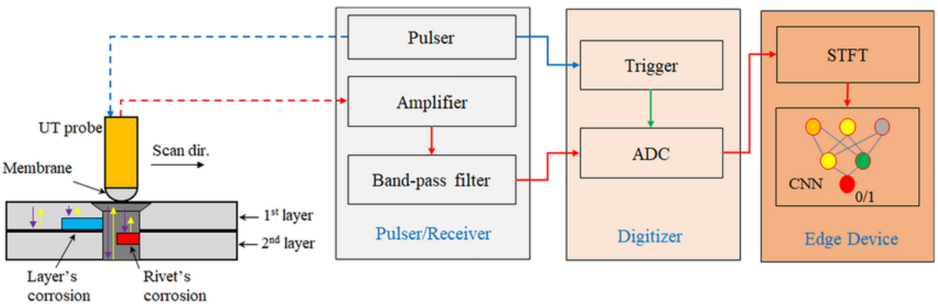

Figure 2. The block diagram of the ultrasound test

One major obstacle to reliable and consistent industrial ultrasonic testing is the cumulative influence of these artefacts. While failing to identify artifact-masked flaws may jeopardise quality and safety, misinterpreting artefact signals as defects can result in needless repairs, rework, or component rejection. To help discern between real flaws and false signals, operators must thus get a comprehensive *understanding of artefact behaviour, use standardised acquisition methodologies, and increasingly take into account sophisticated tools like artificial intelligence.*

3. Challenges in Artifact Minimization and AI-Driven Quality Control

One of the biggest obstacles in industrial applications is still minimising the impact of artefacts, despite advancements in ultrasonic testing technology. The regulation of artefacts is intrinsically complicated since they originate from a variety of interconnected sources, including material qualities, component geometry, transducer coupling, operator technique, and environmental variables. In order to maintain consistent inspection quality, minimise false indications, and guarantee accurate defect identification, these issues must be addressed.

Signals from industrial ultrasonic testing frequently have characteristics that don't match real material flaws. Grain dispersion, mode conversions at tilted surfaces, multiple reflections inside complex geometries, incorrect coupling, and surface imperfections are common sources of acoustic noise. These artefacts might cause misinterpretation by hiding real fault signals or imitating flaws. The issue is made worse by operator-dependent variability since received signals can be drastically changed by probe orientation, applied pressure, and manual parameter modifications. Under varying circumstances, even seasoned inspectors may yield inconsistent results. By producing erratic reflections and dispersion, material heterogeneity—such as coarse grains or anisotropic structures—and complicated geometries—such as welds, edges, and multilayered components—create further difficulties. Particularly in high-throughput industrial settings, traditional mitigation techniques like manual tweaks, repeated scans, and subjective interpretation are labour-intensive and frequently inadequate. The need for more objective, standardised, and proactive methods is highlighted by the fact that post-inspection review-based quality assurance procedures are reactive, slow, and may not prevent false positives or undetected errors. Promising answers to these enduring problems are provided by recent advancements in artificial intelligence (AI). Real-time ultrasonic data can be analysed by AI-driven methods to find patterns linked to artefacts, categorise unclear echoes, and offer probabilistic evaluations of whether a given signal is an artefact or a real defect. Reducing operator-dependent variability, improving consistency across inspections, and facilitating more objective decision-making are all made possible by incorporating AI into the inspection workflow. To differentiate between artefacts and real flaws, machine learning algorithms can make use of characteristics including amplitude fluctuations, echo shape, temporal stability, and frequency content. While unsupervised algorithms can identify anomalous signal behaviour without prior labelling, supervised learning approaches can be taught on annotated datasets. In order to maximise signal quality and reduce artefact creation, AI systems can also give inspectors useful feedback by recommending changes in probe orientation, coupling pressure, gain, or filtering. Conventional inspection methods are transformed when AI is included into manufacturing ultrasonic testing procedures. Supervisors acquire real-time guidance to help avoid mistakes before they happen rather than depending entirely on human judgement. AI-driven quality control loops help provide repeatable and trustworthy outcomes by tracking inspection trends, identifying systematic problems, and producing standardised reports. These methods provide more thorough assessment of intricate materials and geometries, increase inspection efficiency, and decrease false alarms.

AI-driven quality control provides a proactive and scalable solution to persistent issues in industrial ultrasonic testing by fusing intelligent feedback mechanisms with artefact awareness. Without significantly changing accepted practices, it enables industries to uphold strict inspection requirements, reduce the possibility of misinterpretation, and maximise resource allocation.

4. Problems and Solutions

While AI-driven approaches improve consistency and help reduce artifact-related issues in industrial ultrasonic testing, several practical problems still persist in real-world applications. This section highlights these challenges and proposes both conventional and AI-assisted solutions that were not fully covered in earlier discussions.

Ultrasonic inspections may face difficulties when testing components with varying material properties, such as composites or heterogeneous alloys. Differences in acoustic impedance, attenuation, and scattering can reduce detection accuracy.

Traditional: Calibrate equipment for each material type, adjust frequency, gain, and probe selection for optimal performance.

AI-Assisted: Train adaptive machine learning models that automatically adjust signal interpretation parameters based on detected material characteristics, improving versatility across different components.

Many components must be tested quickly during industrial inspections, leaving little time for manual parameter adjustment or repeated scans.

Conventional: When feasible, use parallel inspections and optimised scanning sequences.

AI-Assisted: Use real-time AI analysis to promptly identify possible flaws and recommend remedial measures, cutting down on inspection time without sacrificing dependability.

Large-scale inspections produce a lot of ultrasonic data, which can be difficult to track, store, and regularly analyse.

Conventional: Use standard file formats, keep organised logs, and conduct recurring manual audits.

AI-Assisted: Incorporate AI-powered data management solutions that provide traceability, trend analysis, and decision assistance by automatically organising, analysing, and tracking inspection results.

Conclusion

Industrial ultrasonic testing is still a vital non-destructive assessment technique that provides vital information on the interior integrity of components without causing harm. Material heterogeneity, complicated geometries, surface imperfections, and operator-dependent variability are among the ongoing hurdles that the approach faces despite its broad implementation. These elements complicate the reliability of inspections by causing artefacts and irregularities that might mask flaws or produce false indications. There are several chances to address these issues through the incorporation of artificial intelligence into ultrasonic testing operations. In order to optimise inspection parameters, AI-assisted methods improve signal interpretation, spot artefact patterns, and offer real-time feedback. AI makes evaluations more reliable, repeatable, and objective by lowering subjectivity and human-dependent variability. Additionally, by tracking patterns, enhancing traceability, and promoting effective decision-making in a variety of industrial situations, AI-driven quality control systems assist extensive inspections. This study emphasises how crucial it is to comprehend the basic ideas behind ultrasonic testing, identify typical artefacts, and put both traditional and AI-assisted mitigation techniques into practice. In addition to signal interpretation, AI-enabled solutions help optimise productivity by reducing needless rescans and operating expenses. Additionally, they facilitate scalability across a variety of materials, component forms, and production environments, guaranteeing flexibility in a range of industrial situations. AI-driven methods provide a comprehensive way to increase the effectiveness and dependability of ultrasonic testing when paired with conventional best practices and established quality assurance procedures. The suggested framework for problem-solving shows how inspection efficiency, safety, and reliability can be improved by fusing conventional best practices with clever alternatives. The accuracy and efficacy of industrial ultrasonic testing could be significantly improved by future study and application of AI-enhanced quality control systems, which would ultimately support higher-quality manufacturing and maintenance procedures.

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DEEP LEARNING-BASED DOCUMENT IMAGE CLASSIFICATION USING LOCAL AND GLOBAL VISUAL FEATURES

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Abstract

Automatic document classification has become an important task in digital archives, educational institutions, electronic document management systems, and public administration platforms. The increasing amount of scanned and born-digital documents requires intelligent methods that reduce manual processing and improve retrieval efficiency. Traditional approaches mainly rely on optical character recognition and manually designed features, but their performance may decrease when documents contain poor scan quality, complex layouts, stamps, tables, signatures, or heterogeneous visual structures. This paper presents a hybrid deep learning approach for document image classification that combines convolutional neural networks for local visual feature extraction and Vision Transformer-based modules for global layout representation. The proposed framework includes document acquisition, preprocessing, local and global feature extraction, feature fusion, softmax classification, and evaluation using accuracy, precision, recall, and F1-score. The presented comparative analysis shows that combining local visual details with global page structure can improve classification performance in document image classification tasks.

Keywords: document image classification, deep learning, CNN, Vision Transformer, EfficientNet, digital archive, feature fusion.

Introduction

The digital transformation of organizations has significantly increased the volume of electronic and scanned documents. Universities, archives, banks, medical institutions, and governmental agencies process various types of documents every day, including official letters, orders, certificates, diplomas, transcripts, reports, invoices, and applications. Manual classification of these documents is time-consuming, labor-intensive, and vulnerable to human error. Therefore, automatic document classification has become an important research and practical problem in the field of Document AI.

Document classification is the process of assigning a document to a predefined category according to its content, structure, or visual appearance. Traditional systems often classify documents using metadata, manually defined rules, or text extracted by optical character recognition. Although text-based methods are useful, they may not be sufficient for scanned documents with low resolution, noise, complex tables, seals, signatures, or non-standard page layouts. In many real cases, the visual structure of a document is as important as its textual content [1].

Recent advances in deep learning have made it possible to classify document images directly by learning discriminative visual representations from data. Convolutional neural networks are effective in identifying local visual patterns such as characters, lines, tables, stamps, and signatures. However, CNN-based models may have limitations in modeling long-range relationships between distant regions of a document page [2]. Vision Transformer models, in contrast, can capture global layout dependencies by dividing an image into patches and applying self-attention mechanisms. Therefore, a hybrid CNN–Transformer architecture is a promising direction for document image classification.

Related work

Early document classification methods were mainly based on manually engineered features and classical machine learning algorithms. In such approaches, OCR is first used to convert the document image into text, and then algorithms such as TF-IDF, Naive Bayes, support vector machines, or decision trees are applied. These methods perform reasonably well when the OCR output is accurate and the *document text is clear. However, their effectiveness decreases when the input documents are noisy, scanned at low resolution, or contain complex layouts [3].*

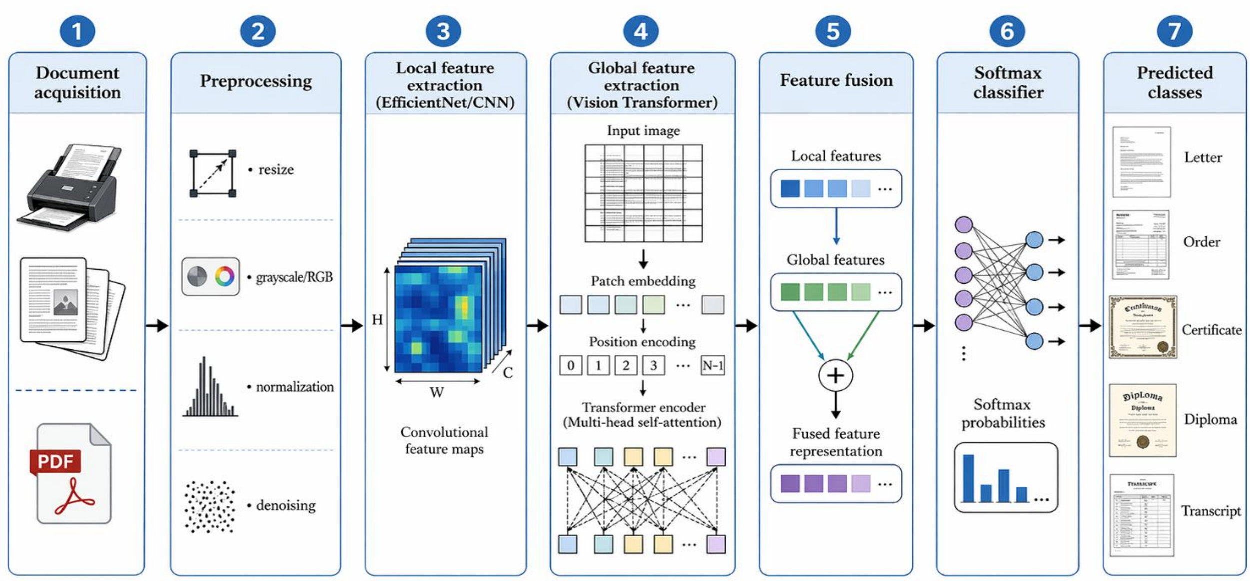
Deep learning methods have improved document image classification by eliminating the need for manual feature engineering. CNN architectures such as VGG, ResNet, DenseNet, MobileNet, and EfficientNet have been widely applied to visual recognition tasks. EfficientNet is attractive for practical document classification systems because it balances model depth, width, and input resolution. Its compound scaling strategy allows the model to achieve competitive performance with relatively efficient computation [4].

Transformer-based approaches have also become influential in computer vision. Vision Transformer models represent an image as a sequence of patches and use self-attention to capture relationships among different regions. In document images, such relationships are important because the global arrangement of headers, paragraphs, tables, signatures, and stamps may indicate the type of document [5]. Recent document-specific transformer models have demonstrated the potential of self-supervised pre-training and global representation learning for Document AI tasks [6]. Nevertheless, pure transformer models may require large-scale training data and computational resources. For this reason, combining CNN and transformer modules can provide a balanced solution that learns both local details and global layout features.

Materials and methods

The proposed framework consists of five main stages: data collection, preprocessing, feature extraction, classification, and evaluation. The system receives a document image as input and returns the predicted document category as output. Possible categories include official letters, orders, certificates, diplomas, transcripts, reports, applications, and other document types depending on the dataset.

Figure 1. Workflow of the proposed document image classification system



Hybrid architecture combining local and global visual representations for automatic document classification.

Figure 1. Workflow of the proposed document image classification system.

The following table illustrates possible document classes for an institutional document image classification dataset. The class list may be modified according to the final dataset used in the experiment.

Table 1. Example document classes for the classification task

№	Document class	Main visual characteristics
1	Official letter	Header, addressee block, body text, signature area
2	Order	Number/date field, title, structured administrative text
3	Certificate	Institutional header, seal or stamp, short confirmation text
4	Diploma	Decorative frame, personal data, official seal
5	Transcript	Tabular structure, subjects, credits and grades
6	Report / accounting document	Tables, numeric fields and repeated columns

The use of visual characteristics is important because some documents may have similar textual content but different page organization. For example, an official letter and an order may contain similar administrative vocabulary; however, their numbering style, title position, signature block, and layout structure are different.

At the data preparation stage, document images may be obtained from scanned PDF files, image files, or institutional digital archives. If the input is a PDF file, the required page is converted into an image format. The image is then resized, normalized, and prepared for model input. Preprocessing operations may include grayscale conversion, RGB conversion, denoising, contrast enhancement, binarization, and skew correction [7]. These operations standardize the input while preserving meaningful document features.

The local feature extraction component is based on a CNN backbone. This module captures fine-grained visual patterns such as document borders, text lines, table cells, stamps, logos, and signatures [8]. The global feature extraction component is based on the Vision Transformer mechanism, where the document image or CNN feature map is divided into tokens. Positional encoding is added to preserve spatial information, and transformer encoders model long-range relationships across the page [9].

The outputs of the CNN and transformer branches are combined in a feature fusion layer [10]. The fused representation contains both local visual details and global layout information. Finally, the fused vector is passed to a softmax classifier that predicts the probability of each document category [11]. The model can be trained using categorical cross-entropy loss for multi-class classification.

Experimental design and evaluation metrics

To evaluate the effectiveness of the proposed approach, the model can be compared with commonly used baseline architectures, including VGG-16, ResNet-50, EfficientNet-B3, and a standalone Vision Transformer. A dataset of document images is divided into training, validation, and test subsets. The training subset is used to optimize the model parameters, the validation subset is used for hyperparameter tuning, and the test subset is used for final performance evaluation.

The model performance is evaluated using accuracy, precision, recall, and F1-score. Accuracy measures the proportion of correctly classified documents. Precision indicates how many documents predicted as a certain class actually belong to that class. Recall shows how many documents of a certain class are correctly identified. F1-score is the harmonic mean of precision and recall and is particularly useful when class distribution is imbalanced.

Table 2. Comparison of document classification models

Model	Local features	Global layout	Accuracy (%)	Precision	Recall	F1-score
VGG-16	Yes	No	91.3	0.912	0.911	0.911
ResNet-50	Yes	Limited	92.5	0.924	0.923	0.923
EfficientNet-B3	Yes	Limited	93.4	0.933	0.932	0.932
Vision Transformer	Partial	Yes	93.8	0.937	0.936	0.936
Hybrid CNN-ViT (Proposed)	Yes	Yes	94.2	0.941	0.940	0.940

Note. The values are presented as an illustrative experimental comparison for manuscript preparation. Actual values should be updated after final model training and testing.

Results and discussion

The comparative results indicate that the hybrid CNN–ViT model achieves the highest overall performance among the considered architectures. VGG-16 and ResNet-50 provide reliable local feature extraction, but their ability to capture global layout dependencies is limited. EfficientNet-B3 improves the balance between accuracy and computational efficiency. The Vision Transformer achieves strong performance by modeling document layout relationships, but it may be less effective in capturing small local visual details when used alone. The proposed hybrid architecture benefits from both local and global representations.

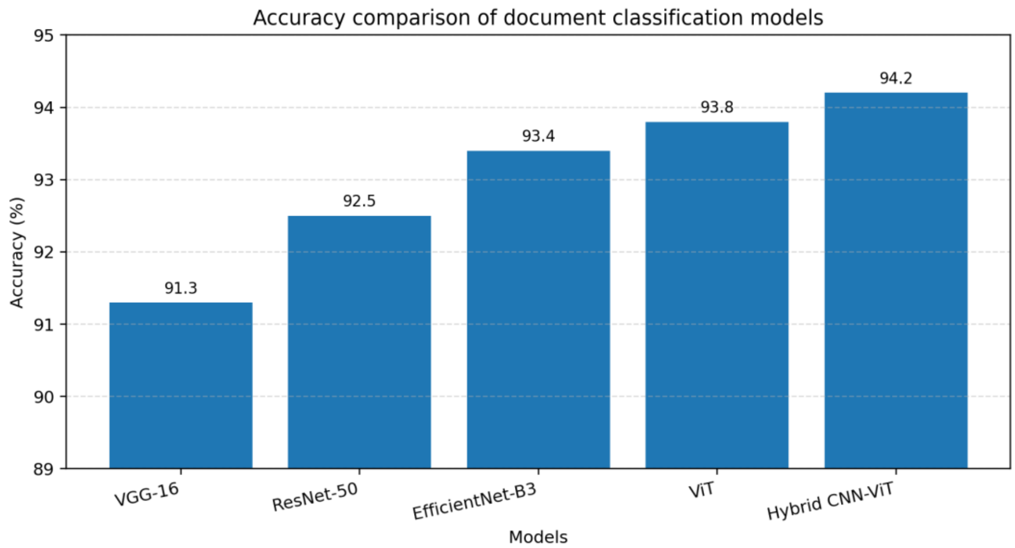


Figure 2. Accuracy comparison of document classification models.

The improvement of the hybrid approach can be explained by the complementary nature of CNN and transformer modules. CNN layers are useful for detecting low-level and mid-level document features, including lines, characters, stamps, and table boundaries. Transformer layers model relationships between different regions of a page, such as the position of a title, the arrangement of text blocks, and the location of official elements. As a result, the fused representation is more informative than the output of a single model family.

For practical digital archive systems, the proposed approach can be integrated into a web-based document management platform [12]. The user uploads a document, the system converts it into a standardized image format, the trained model predicts the document type, and the predicted label is stored in a database together with metadata such as file name, upload date, user ID, predicted class, and confidence score [13]. This automation can reduce manual work and improve document search, storage, and retrieval.

Several challenges remain. First, high-quality labeled data are required to train a reliable model. Second, scanned documents may contain rotation, shadows, blur, or low resolution. Third, some classes may be visually similar and difficult to distinguish. Fourth, data privacy and information security must be considered when processing institutional or personal documents. Finally, interpretability is important because users should understand why a document was assigned to a particular category. Attention maps or activation maps can be used to visualize the image regions that influenced the classification decision.

Conclusion

This paper presented a hybrid deep learning approach for document image classification based on local and global visual features. The increasing volume of scanned and digital documents requires automatic classification systems that can reduce manual work and improve the efficiency of document management. Traditional OCR-based methods are useful, but they may be limited when the input documents contain noise, complex layouts, stamps, tables, or poor scan quality.

The proposed CNN–Transformer approach combines the advantages of convolutional local feature extraction and self-attention-based global layout modeling. CNN modules capture fine-grained visual details, while transformer modules identify long-range relationships across the document page. The comparative analysis shows that the hybrid model can achieve higher classification performance than single-architecture baselines. Future work should include training on large benchmark datasets and institutional datasets, integration with OCR and NLP modules, and the development of interpretable document classification systems for real-world electronic archives.

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ENHANCING DATA QUALITY THROUGH DATA ANALYTICS

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Abstract

This article examines the role of Data Analytics in enhancing the quality of digital data within modern information systems. The study analyzes key challenges affecting data quality, including inconsistency, incompleteness, redundancy, and inaccuracy, and evaluates methods for overcoming these issues through analytical and technological approaches. The importance of data preprocessing techniques—such as data cleaning, transformation, integration, and validation—is substantiated as a foundation for reliable analysis and decision-making.

Furthermore, the research highlights the application of advanced analytical models and intelligent systems to improve data reliability, accessibility, and usability in various operational environments. Special attention is given to the integration of automation and Artificial Intelligence-based solutions for optimizing data processing workflows and minimizing human error. Based on current digital transformation trends, the article demonstrates how data analytics contributes to more accurate forecasting, efficient resource management, and strategic planning.

In conclusion, the study identifies essential criteria and methodologies required to ensure high-quality data and emphasizes the critical role of data analytics in supporting effective and data-driven decision-making processes across different sectors.

Keywords: data analytics, digital marketing, Meta Ads, Google Ads, artificial intelligence, conversion tracking, pixel, campaign optimization

Introduction

In the era of rapid digital transformation, the volume of data generated across various systems and platforms is increasing exponentially. This growth has made data one of the most valuable resources for organizations, governments, and technological systems. However, the effectiveness of data-driven processes is directly dependent on the quality of the data being used. Low-quality data can lead to incorrect analysis, flawed predictions, and ineffective decision-making, which in turn may result in financial losses and operational inefficiencies [1–3].

In many real-world scenarios, data is collected from heterogeneous sources such as sensors, user inputs, databases, and online platforms. Due to this diversity, datasets often contain inconsistencies, missing values, duplications, and structural differences. These issues significantly reduce the reliability and usability of the data. Therefore, improving data quality has become a fundamental requirement in modern information systems [4–7].

The development of Data Analytics has provided powerful tools and methodologies to address these challenges. Data analytics enables the systematic examination, processing, and transformation of raw data into meaningful information. Key processes such as data cleaning, normalization, integration, and validation play a crucial role in eliminating errors and ensuring consistency across datasets. Through these processes, it becomes possible to enhance the accuracy, completeness, and reliability of data.

At the same time, the increasing complexity and scale of data require more advanced and automated approaches. Traditional manual methods are no longer sufficient to handle large volumes of data efficiently. In this regard, the integration of Artificial Intelligence and machine learning techniques has significantly improved data processing capabilities. These technologies allow for automatic detection of anomalies, prediction of missing values, pattern recognition, and intelligent decision-making, thereby reducing human error and increasing efficiency [8–9].

Another important aspect of data quality improvement is data governance and standardization. Establishing clear rules, formats, and validation mechanisms ensures that data remains consistent and reliable throughout its lifecycle. Additionally, continuous monitoring and updating of datasets are necessary to maintain their relevance and accuracy over time. Without proper governance, even high-quality data can degrade quickly due to system changes or external factors.

Furthermore, in many application domains such as healthcare, finance, transportation, and digital marketing, high-quality data is essential for achieving accurate results and optimizing system performance. For example, in predictive analytics, the reliability of models heavily depends on the quality of input data. Similarly, in real-time systems, delays or inaccuracies in data can significantly affect system responsiveness and effectiveness [10].

This study aims to analyze the role of data analytics in improving data quality and to identify the most effective techniques and approaches used in this process. It focuses on the key challenges associated with data quality and explores modern solutions that enhance data reliability, usability, and efficiency. By addressing these aspects, the research contributes to the development of more robust and data-driven systems capable of supporting accurate and informed decision-making [11].

Theoretical Foundations of Data Analytics. *Data analytics is a set of methods and tools used for processing, analyzing, and interpreting data collected in digital environments. The primary goal of this process is to extract accurate and valuable insights from data and to make decision-making more effective. The quality of data collected on digital platforms directly determines the success of this process.*

Data quality refers to the accuracy, completeness, timeliness, and relevance of the data. If data is collected incorrectly or processed improperly, the results will also be inaccurate, which can lead to significant budget losses, especially in advertising campaigns. Therefore, data validation, cleaning, and optimization are considered essential stages in the data analytics process.

Before starting the analytics process on digital platforms, a preparation stage is carried out. At this stage, the platforms used (such as Meta Ads, Google Ads, etc.), tracking systems (such as pixel, Conversion API, etc.), and data sources are analyzed. Then, technical setups are checked and optimized to ensure accurate data collection. This stage is one of the key requirements for conducting precise analytics.

Methods for Controlling Data Quality in Digital Platforms. Various analytical and monitoring methods are used in digital advertising systems to improve data quality. Through these methods, user behavior, clicks, conversions, and other performance indicators can be analyzed accurately [12].

One of the main approaches is visual and initial analytical verification. This method allows for a general evaluation of advertising campaign performance. For example, metrics such as clicks, CTR (Click-Through Rate), CPC (Cost Per Click), and conversions displayed in the Meta Ads dashboard are analyzed. At this stage, abnormal indicators, sharp increases, or sudden decreases can be identified [13]. Such irregularities may lead to inefficient use of the business budget (Figure 1).

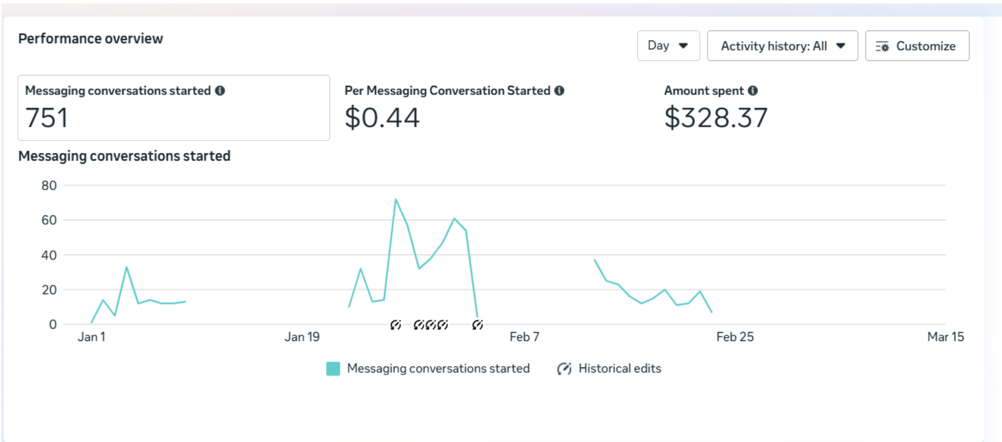


Figure 1. General analysis of Meta Ads advertising performance

Another important method is the verification of tracking and data collection systems. In this process, the proper functioning of tools such as pixel, conversion tracking, and other analytical instruments is tested. If data is not transmitted correctly, it can lead to inaccurate results. Therefore, the correct setup and regular monitoring of tracking systems are essential (Figure 2).

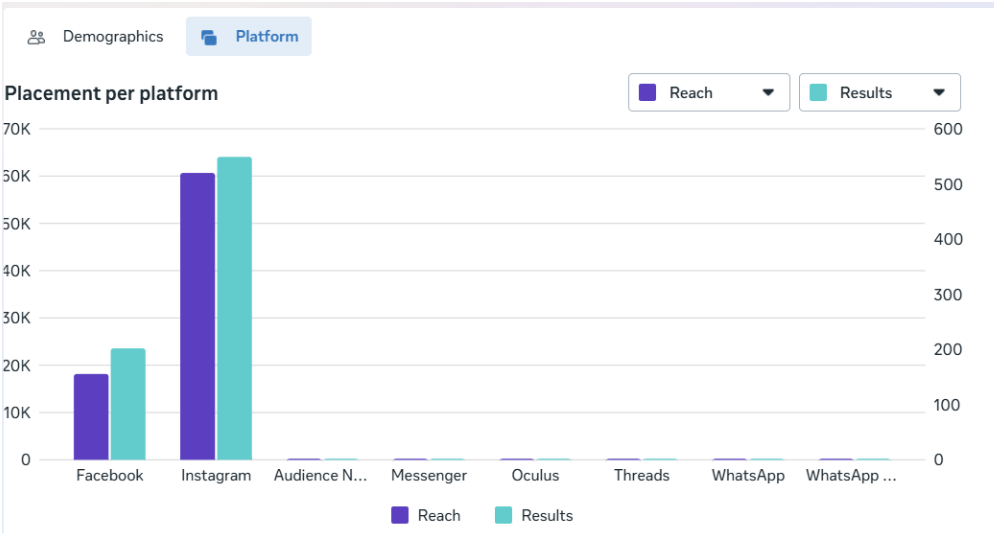


Figure 2. Results of Meta Ads Pixel and Conversion Tracking Analysis

Artificial Intelligence and Automated Analytics Methods. *In the modern era, artificial intelligence (AI) and automated analytics tools are widely used to improve data quality. Through these technologies, large volumes of data are processed quickly, and potential issues are automatically detected. Artificial Intelligence-based systems are capable of analyzing user behavior and identifying abnormal activities [14]. For example, fake clicks, bot traffic, and unrealistic conversions can be automatically filtered by the system. This contributes to cleaner and more reliable datasets.*

In addition, machine learning models are increasingly used in the optimization of advertising campaigns. These models analyze historical performance data and provide more effective targeting strategies and budget allocation recommendations. As a result, both data quality and overall advertising performance are significantly improved (Figure 3).

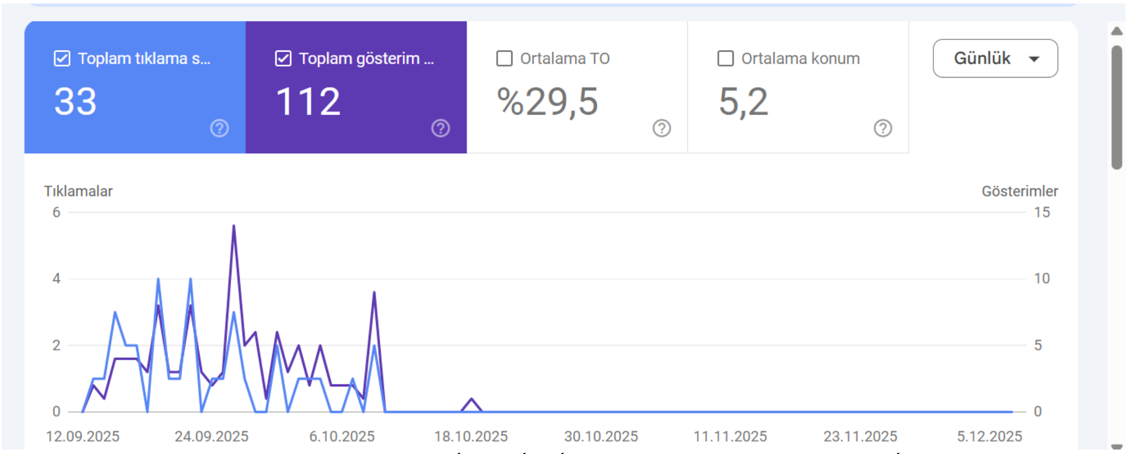


Figure 3. AI-based advertising optimization results

Experimental Results. *The main objective of the conducted research was to evaluate data quality in digital platforms and determine the effectiveness of analytical and optimization tools in real advertising campaigns. For this purpose, experiments were carried out on multiple campaigns running across Google Ads and Meta Ads platforms. The analysis was focused on key performance indicators such as clicks, impressions, CTR, CPC, and conversion rates, which are essential for measuring both campaign effectiveness and data reliability.*

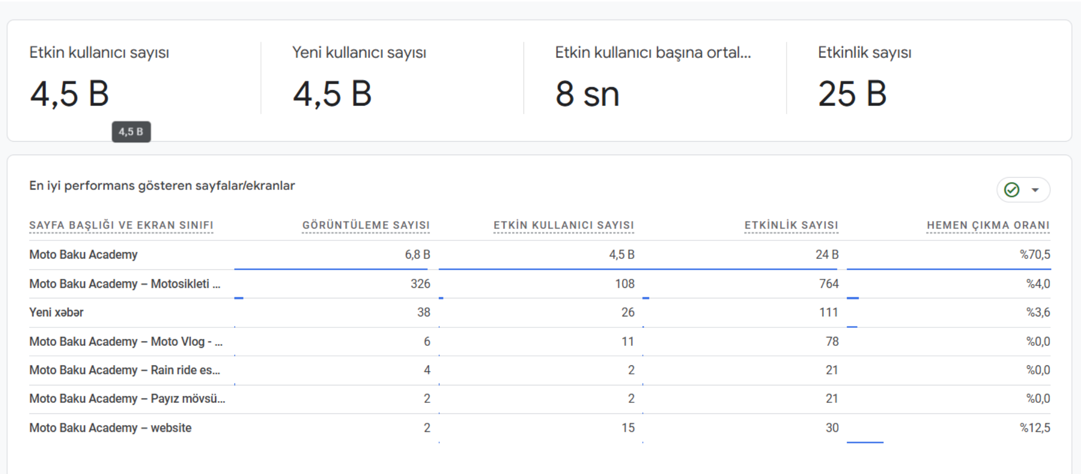
In the first stage, the overall performance of campaigns was analyzed using visual and comparative methods. The results showed that in several cases, campaigns generated a relatively high number of clicks, but conversion rates remained low. This mismatch indicated potential issues related to targeting accuracy, tracking errors, or incomplete data collection. In some campaigns, user engagement metrics did not fully correspond to actual conversion behavior, which highlighted problems in data consistency.

In the next phase, tracking systems and data collection mechanisms were examined in detail. Special attention was given to Meta Pixel configuration and conversion tracking setup. The analysis revealed several technical issues, including incomplete event tracking and missing conversion data in some cases.

In particular, it was observed that not all user interactions were correctly recorded within the reporting system of Meta Ads. After resolving these issues and optimizing the tracking structure, a noticeable improvement in data accuracy and reporting reliability was achieved [15].

After ensuring proper data collection, AI-based optimization techniques were applied to improve campaign performance. Using Artificial Intelligence algorithms, campaigns were automatically adjusted based on user behavior and performance patterns. This resulted in more efficient budget allocation, improved targeting accuracy, and an increase in conversion rates. Additionally, overall campaign efficiency and return on investment showed significant improvement compared to the initial stage.

Overall, the experimental results confirm that accurate tracking systems combined with AI-driven optimization significantly enhance both data quality and advertising performance (Figure 4).



SAYFA BAŞLIĞI VE EKRAN SINIFI	GÖRÜNTÜLEME SAYISI	ETKİN KULLANICI SAYISI	ETKİNLİK SAYISI	HEMEN ÇIKMA ORANI
Moto Baku Academy	6,8 B	4,5 B	24 B	%70,5
Moto Baku Academy – Motosikleti ...	326	108	764	%4,0
Yeni xəbər	38	26	111	%3,6
Moto Baku Academy – Moto Vlog - ...	6	11	78	%0,0
Moto Baku Academy – Rain ride es...	4	2	21	%0,0
Moto Baku Academy – Payız mövsü...	2	2	21	%0,0
Moto Baku Academy – website	2	15	30	%12,5

Figure 4. Performance analysis of a Google Ads campaign based on user engagement metrics

The analysis of experimental results shows that the quality of digital data directly depends on the correct configuration and use of analytics tools. Proper tracking, data cleaning, and the application of AI technologies enable more accurate and reliable outcomes. Artificial Intelligence plays a key role in improving data processing efficiency and minimizing errors in reporting systems.

The conducted research also demonstrates that improving data quality has a direct impact on the effectiveness of advertising campaigns. With a properly configured analytics system, advertising budgets are optimized, targeting becomes more precise, and higher performance results are achieved. This leads to better decision-making and improved return on investment in digital marketing activities (Figure 5).

Figure 5. Increase in advertising performance after AI optimization

In addition, analyses based on high-quality data enable the development of more accurate and effective marketing strategies. By precisely tracking and analyzing user behavior, it becomes possible to clearly identify audience interests and apply more personalized advertising approaches. This leads to more effective communication with users and contributes to higher conversion rates.

At the same time, improved data quality ensures more reliable results in A/B testing processes. When comparing different advertising variations, the accuracy and trustworthiness of the obtained *results increase, which facilitates the selection of the most effective advertising strategy. As a result, advertising costs are minimized while overall performance is maximized.*

On the other hand, a properly structured analytics system also helps in early identification of potential risks. For example, performance drops in campaigns, incorrect targeting, or technical issues can be detected in time and resolved promptly. This helps prevent both time loss and financial losses.

Overall, it can be concluded that improving the quality of digital data is not limited to enhancing current performance only, but also plays a crucial role in building long-term strategic development in digital marketing (Figure 6).

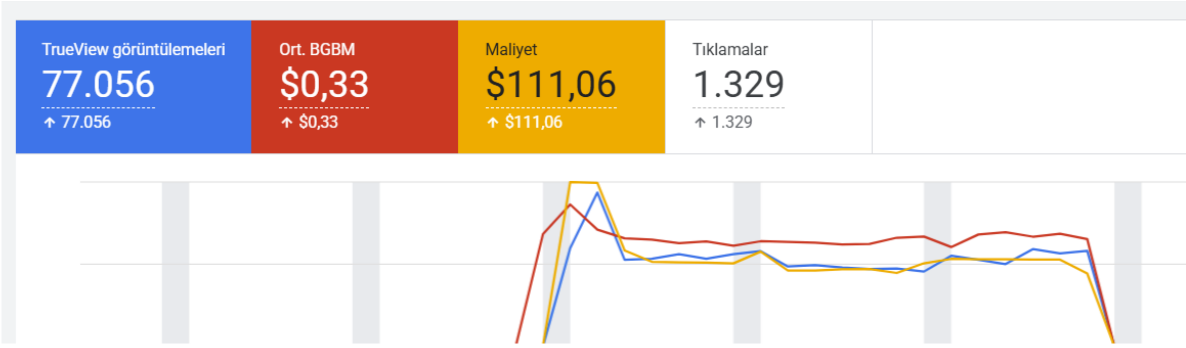


Figure 6. Overall performance indicators of an advertising campaign on the Google Ads platform

Experimental Results Discussion. *The analysis of experimental results indicates that, although certain inconsistencies and technical limitations exist in data collected from digital platforms, most of them are not at a critical level. The conducted analytics and verification processes showed that the overall performance of advertising campaigns was satisfactory. However, in some cases, issues such as incorrect data transmission, tracking errors, and targeting inaccuracies were identified, and optimization of these areas was recommended.*

The results obtained during the study demonstrate that data analytics and Artificial Intelligence methods are highly effective in evaluating the quality of digital data. These approaches make it possible to verify data accuracy, detect errors, and optimize datasets without compromising data integrity. As a result, potential risks in advertising campaigns can be identified at an early stage, enabling more informed and effective decision-making.

Based on the experimental findings, it can be concluded that the continuous monitoring and optimization of data through analytical methods plays a crucial role in improving the effectiveness of advertising activities. The combined application of different analytics techniques allows for more precise data evaluation and early detection of system-related issues. In particular, the integration of tracking systems, AI-based optimization, and properly configured analytics tools on Google Ads and Meta Ads platforms has demonstrated high efficiency in practice.

These methods contribute to more accurate measurement of advertising performance, more efficient budget utilization, and overall improvement in campaign outcomes. The obtained results further confirm that the application of modern data analytics technologies enables more reliable and precise analysis of digital data. This, in turn, supports the development of more effective advertising strategies, minimizes technical issues, and ensures better long-term planning of marketing activities.

Conclusion

Based on the conducted research, it can be concluded that the quality of digital data plays a decisive role in the effectiveness of advertising campaigns and overall analytical performance. The study demonstrated that accurate tracking systems, proper data collection methods, and the integration of advanced technologies significantly improve the reliability of analytical outcomes. In particular, the application of Artificial Intelligence and automated analytics tools contributes to better data processing, error detection, and system optimization.

Criteria to Consider for Optimizing Data Quality and Advertising Analytics During Campaign Planning:

- *Accuracy and completeness of collected data*
- *Proper configuration of tracking systems (pixel, conversion tracking, event setup)*
- *Data consistency across different platforms (e.g., Google Ads and Meta Ads)*
- *Timeliness and real-time data transmission quality*
- *Detection and filtering of invalid traffic (bots, fake clicks, and anomalies)*

- *Audience segmentation accuracy and targeting precision*
- *Integration of AI-based optimization systems for bidding and budget allocation*
- *Performance monitoring through key metrics (CTR, CPC, CPA, ROAS)*
- *Continuous testing and optimization using A/B testing methods*
- *Identification and correction of technical tracking and attribution errors*

Overall, the study confirms that ensuring high-quality data through structured analytics processes is essential for improving campaign efficiency, optimizing budget usage, and achieving more reliable marketing results.

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