In addition, the article highlights innovative aspects of applying corpus-based methods in philological education and demonstrates how they contribute to advancements in theoretical and applied research. The study also presents a comparative analysis of grammatical features found in linguistic corpora of the Kazakh language.

The importance of developing corpus literacy for students to work effectively with corpus resources is emphasized. For this purpose, the research includes stages such as familiarization with corpus structure, performing search and analytical tasks, creating internal corpora based on small textual datasets, and mastering the main principles of using corpus data. The linguistic material used for the analysis was taken from the "sub-corpora" database of the National Corpus of the Kazakh Language.

The conclusion presents scientific findings and methodological recommendations for further development of corpus studies in the educational process and emphasizes the need to deepen research in this field.

Keywords: corpus linguistics, corpus-based learning, philological education, digital humanities, communicative competence, innovative model.

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PRONUNCIATION CORRECTION METHODS FOR LEARNERS OF ENGLISH AS A FOREIGN LANGUAGE: A SYSTEMATIC REVIEW

Abstract. This article presents a systematic review of pronunciation correction methods for learners of English as a Foreign Language (EFL). The aim of the study is to compare traditional and technology-based

approaches to pronunciation correction and to evaluate their effectiveness for Kazakh and Russian speaking learners. The research material consists of ten articles published between 2016 and 2025 and selected according to predefined inclusion and exclusion criteria. The study employs a systematic review methodology based on the qualitative synthesis of findings from the selected studies.

The results indicate that traditional pronunciation instruction, including explicit phonetic teaching, IPA-based exercises, and corrective feedback strategies, is effective in reducing first-language interference and improving segmental pronunciation accuracy. Technology-based approaches relying on Artificial Intelligence (AI) and Automatic Speech Recognition (ASR) enhance learner autonomy and provide extensive practice opportunities; however, they exhibit certain limitations in independently addressing complex phonological errors. Accordingly, this study advocates for a hybrid instructional model. This approach effectively integrates traditional phonetic teaching with the advantages of technology-assisted practice. The findings have both theoretical and practical significance, offering insights for improving pronunciation instruction in EFL classrooms and guiding future empirical research.

Keywords: pronunciation correction; EFL learners; traditional methods; AI-based instruction; hybrid instructional model.

Introduction

English pronunciation plays a crucial role in effective communication, as it directly influences intelligibility and comprehensibility in spoken interaction. For learners of English as a Foreign Language (EFL), inaccurate pronunciation may hinder academic participation, reduce communicative confidence, and negatively affect overall language performance. These difficulties are particularly evident among learners whose first languages differ significantly from English in phonological structure. Kazakh and Russian speaking EFL learners experience persistent challenges related to vowel length distinctions, consonant clusters, word stress, and intonation patterns. These problems are largely attributed to first-language interference and the mismatch between English orthography and pronunciation. As a result, even advanced learners may continue to demonstrate fossilized pronunciation errors.

Many studies in the field of EFL have proposed traditional approaches to pronunciation instruction and correction. Common techniques include articulatory explanations, phonetic transcription, minimal pair drills, repetition, as well as instruction focused on stress, rhythm, and intonation patterns [1]. According to Zhanabekova et al. (2016), these approaches aim to develop learners' awareness of sound production and reduce errors caused by first-language interference. Studies indicate that systematic training in articulation and sound discrimination is particularly beneficial for beginner and intermediate learners [2]. In addition to direct pronunciation-focused instruction, spelling-based techniques have also been explored as indirect means of pronunciation correction. Activities such as spelling drills and «Spelling Bee» tasks are designed to increase phonological awareness and help learners recognize inconsistencies between English spelling and pronunciation. Empirical studies indicate that such techniques can lead to significant improvements in segmental pronunciation, particularly among school-aged learners [3].

At the same time, research has shown that the effectiveness of traditional pronunciation instruction is closely related to teachers' instructional priorities and classroom practices. Researchers confirm that teachers often balance between native-like pronunciation models and intelligibility-oriented goals, which directly influences the choice of correction techniques and feedback strategies [4]. Similarly, others report that pronunciation teaching in communicative EFL classrooms is frequently limited and unsystematic, with instructors relying primarily on incidental correction rather than structured instructional approaches [5]. These findings suggest that while traditional methods are pedagogically effective, their impact depends largely on systematic implementation and clearly defined instructional objectives.

Corrective feedback (CF) is another central component of traditional pronunciation teaching. CF strategies may take various forms, including explicit correction, recasts, metalinguistic explanations, elicitation, and repetition [6]. Balanced and context-sensitive corrective feedback can improve pronunciation accuracy while minimizing learner anxiety and maintaining communicative flow [6]. Meanwhile, for corrective feedback to facilitate pronunciation development, it does not need to be perfectly accurate. A «Sufficient level» of accuracy (approximately 66%) is adequate to produce positive learning outcomes [7]. However, excessive correction or poorly timed feedback

may negatively affect fluency and learner confidence. The highlights the need for pedagogically informed correction strategies that account for learners' psychological and linguistic needs.

Recent years have witnessed growing interest in technology-assisted pronunciation instruction. AI-powered tools such as speech recognition applications and pronunciation training platforms have been shown to improve pronunciation accuracy and speaking performance in EFL learners [8]. Computer-assisted pronunciation training (CAPT) and automatic speech recognition (ASR) systems enable learners to receive immediate feedback on pronunciation accuracy and engage in repeated practice without direct teacher intervention. Empirical studies employing pre-test and post-test designs report statistically significant gains in pronunciation and speaking skills following ASR-based training [8], [9]. These improvements are often attributed to increased learner autonomy, reduced anxiety, and the availability of individualized feedback [9]. Research also suggests that technology-assisted correction may be particularly effective for specific pronunciation features, such as vowel contrasts and epenthesis. Other features, such as certain consonantal contrasts, may require additional instructional support [10].

Traditional and technology-based pronunciation correction approaches demonstrate both complementary and, in some cases, contrasting strengths. While traditional methods allow for in-depth explanation of articulatory mechanisms and provide explicit instructional guidance, technological tools offer scalability, immediate feedback, and opportunities for autonomous practice. However, existing research rarely addresses pronunciation correction as an integrated instructional system. Most studies examine traditional and technology-assisted approaches in isolation, with limited systematic comparison of their effectiveness. In addition, the majority of pronunciation research has focused on learners whose first languages are Chinese, Japanese, Indonesian, or Thai. Meanwhile, Kazakh and Russian speaking EFL learners remain underrepresented in the literature. As a result, there is limited synthesized evidence regarding the relative effectiveness of pronunciation correction methods across different instructional contexts and linguistic backgrounds.

In response to these gaps, the present study aims to systematically analyze and synthesize research on pronunciation correction methods for learners of English as a Foreign Language (EFL). Specifically, the study seeks to address the following research questions:

– What pronunciation correction methods are reported in EFL research?

– According to PRISMA-guided synthesis, how effective are traditional and AI-based pronunciation correction approaches?

– What aspects of pronunciation correction remain insufficiently explored for Kazakh and Russian speaking EFL learners?

Materials and Methods

This study adopts a systematic review design to synthesize existing research on methods for correcting pronunciation in EFL learners. The review was conducted in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency, methodological rigor, and replicability. As the study focuses on analyzing previously published research, no primary empirical data were collected.

To identify relevant studies, a comprehensive literature search was conducted using multiple academic databases. The primary data sources included Scopus and Google Scholar, as these databases provide access to peer-reviewed and high-impact journals in the fields of applied linguistics and English language education. Only articles published in reputable academic journals were considered to ensure the reliability and academic quality of the reviewed studies.

A systematic search strategy was employed using predefined keywords and Boolean operators. The search terms were selected based on the research focus on pronunciation correction and EFL contexts. The following keywords and combinations were used: pronunciation correction, pronunciation teaching, methods for correcting pronunciation, EFL learners, computer-assisted pronunciation training, pronunciation feedback.

The search was limited to studies published between 2016 and 2025 to capture recent developments in both traditional and technology-assisted pronunciation instruction.

Clear inclusion and exclusion criteria were established prior to the study selection process. Inclusion criteria: studies focusing on pronunciation correction methods in EFL or ESL contexts, empirical or theoretical articles, studies involving learners of English as a foreign or second language, publications written in English, studies published between 2016 and 2025. Exclusion criteria: studies related to speech disorders or clinical phonetics, conference abstracts without full-text availability, studies not directly addressing pronunciation correction. The main characteristics of the studies included in the review, including the authors, year of publication, research context, participant profiles, and key terminology, are summarized in Table 1.

Table 1 – Main characteristics of the studies included in the review

Author(s), year of publication, country of the study	**Research context and educational setting**	**Participant characteristics**	**Keywords**
1	2	3	4
Zhanabekova M. A., Zhanabekova A. A., Dabyltaeva P. E., (2016), Kazakhstan.	EFL instruction in secondary schools and higher education institutions in Kazakhstan; traditional phonetic approaches	Not specified; EFL school students and university learners	method, pronunciation, intonation, approach, letter, sound, model, skill
Dandee W., Pornwiriyakit P., (2022), Thailand.	University-level EFL context; IPA-based pronunciation training	35 first-year Thai students with mixed English proficiency levels	English pronunciation, English phonetic drills, Pronunciation errors
Khasanah U., Sabiq A. H. A., (2020), Indonesia.	Secondary school EFL context; spelling-based pronunciation training (Spelling Bee)	75 seventh-grade students (39 males, 36 females)	English pronunciation, English phonetic drills, Pronunciation errors
Bøhn H., Hansen T. (2017), Norway.	EFL pronunciation assessment in secondary and upper-secondary school contexts; teacher perceptions of pronunciation goals	EFL teachers with classroom experience in pronunciation instruction	pronunciation assessment, intelligibility, nativeness orientation, instructional priorities
Foote J.A. et al. (2016), Canada.	Communicative second language classrooms in higher education and adult ESL/EFL programs	Language teachers and classroom observations of pronunciation teaching practices	pronunciation instruction, communicative language teaching, classroom practices, teacher training
Bondareva, N. K., (2025), Russia.	Theoretical framework focusing on communicative effectiveness and learner well-being in pronunciation correction	Russian speaking EFL learners with phonological interference	pronunciation error correction, Russian EFL learners, fossilized errors, L1 interference, analytic-imitative approach, approximative approach, corrective feedback strategies, phonological errors, psycho-emotional factors
Silpachai A. et al., (2024), USA.	University-level EFL courses; CAPT-based pronunciation correction with corrective feedback.	30 Chinese native-speaking students (ages 22–37) at a Midwestern U.S. university.	Corrective Feedback, Second Language Pronunciation, English as a Second Language, CAPT.

Continuation of Table 1

1	2	3	4
Dennis N. K., (2024), Thailand.	University EFL speaking context; AI-based speech recognition tools	33 Thai third-year English majors (purposive sampling)	AI-powered speech recognition technology, EFL, English pronunciation, English speaking skills, pre-test/post-test design, survey questionnaire
Dja'far V. H., Hamidah F. N., (2024), Indonesia.	University context; AI-based mobile application for pronunciation and professional English development	58 third-year Accounting students (29 experimental, 29 control)	English Pronunciation Speech Recognition Technology AI-Based Learning
Spring R., Tabuchi R., (2022), Japan.	ASR-based pronunciation training focusing on treatment length and guided practice	19 Japanese-speaking second-year students (CEFR A2)	Automatic Speech Recognition, Pronunciation, English as a Foreign Language, Feedback

The study selection process followed the standard PRISMA stages: identification, screening, eligibility assessment, and inclusion. Initially, all records retrieved from the databases were compiled, and duplicate entries were removed. Titles and abstracts were then screened to exclude studies that did not meet the inclusion criteria. Subsequently, full-text articles were assessed for eligibility, and only studies that fully aligned with the research objectives were included in the final review.

The extracted data were analyzed using thematic synthesis. The reviewed studies were first categorized according to the type of pronunciation correction method employed, namely traditional approaches and technology-assisted approaches. Subsequently, patterns related to effectiveness, targeted pronunciation features, duration of intervention, and assessment methods were identified. Rather than conducting a statistical meta-analysis, this study focused on a qualitative synthesis to compare trends and highlight similarities and differences across the reviewed research.

Despite rigorous methodological procedures, this systematic review has several limitations. First, the review included only studies published in English, which may have excluded relevant research in other languages. Second, variability in research designs, intervention durations, and pronunciation assessment tools limited direct comparability across studies. Finally, the absence of standardized measures for pronunciation improvement across the literature poses challenges for drawing definitive conclusions regarding the relative effectiveness of different methods.

As this study is based exclusively on the analysis of previously published research, it did not involve human participants or the collection of primary data. Therefore, formal ethical approval was not required. All sources were cited in accordance with the journal's referencing requirements.

Results and Discussion

This systematic review synthesizes findings from ten studies that investigated methods for correcting pronunciation in EFL learners. The results are discussed in relation to the research questions and the research gap identified in the Introduction, with particular attention to the comparison between traditional and technology-assisted approaches, as well as their relevance for Kazakh and Russianspeaking learners.

The reviewed studies were published between 2016 and 2025 and were conducted in diverse EFL contexts, including secondary schools and higher education institutions. In terms of methodology, the majority of studies employed experimental or quasi-experimental designs, often using pre-test and post-test comparisons to measure pronunciation improvement. This methodological tendency aligns with the goal of examining the effectiveness of specific pronunciation correction interventions.

As shown in Figure 2, the reviewed studies demonstrate distinct strengths and limitations depending on whether traditional or technology-assisted pronunciation correction methods are employed. Four studies examined traditional pronunciation correction methods, including explicit phonetic instruction, IPA-based drills, spelling-based activities, and corrective feedback strategies. Across these studies, results consistently indicated improvements in learners' pronunciation accuracy, particularly at the segmental level. Explicit phonetic instruction and articulatory explanations were found to be effective in increasing learners' awareness of sound production and reducing pronunciation errors caused by L1 interference [1], [2]. IPA drills helped learners develop sound-symbol correspondence and contributed to more accurate articulation of problematic English sounds [2]. Similarly, spelling-based techniques such as «Spelling Bee» activities enhanced phonological awareness by drawing learners' attention to inconsistencies between English spelling and pronunciation [3].

Beyond specific instructional techniques, research has also emphasized the role of pedagogical orientation and classroom practices in shaping pronunciation correction outcomes. Other researchers argue that teachers' preferences for native-like pronunciation versus intelligibility-oriented goals significantly influence how pronunciation errors are corrected and prioritized in EFL classrooms [4], [5]. Their findings suggest that even effective traditional techniques may yield inconsistent results when instructional goals are not clearly defined (Table 2).

Table 2 – SWOT Analysis of Pronunciation Correction Methods in EFL Studies

Article	**Method / Approach**	**Strengths (S)**	**Weaknesses (W)**	**Opportunities (O)**	**Threats (T)**
1	2	3	4	5	6
Zhanabekova M. A., Zhanabekova A. A., Dabyltaeva P. E., (2016).	Traditional phonetic instruction (articulatory training, IPA, drilling)	L1-specific (Kazakh/Russian); strong theoretical framework; systematic phonetic focus	No empirical data; unclear sample; lack of quantitative results	Foundation for experimental research; integration with AI tools	Teacher-dependent outcomes; limited generalizability
Dandee W., Pornwiriyakit P., (2022).	IPA-based phonetic drills	Clear articulation improvement; mixed-method validation	No suprasegmental focus; short-term results	Integration with AI pronunciation tools	Learner overload with phonetic symbols
Khasanah U., Sabiq A. H. A., (2020).	Spelling Bee pronunciation technique	High motivation; significant segmental gains; classroom-friendly	Limited sample diversity; no delayed testing	Gamified pronunciation models; L1-adapted spelling strategies	Inflated short-term performance effects
Bøhn H., Hansen T. (2017).	Teacher-based pronunciation assessment perspectives (nativeness vs intelligibility orientation)	Highlights instructional goals shaping correction practices; links assessment to classroom feedback decisions	Does not measure learner pronunciation improvement; perception-based data only	Supports development of intelligibility-focused correction frameworks; informs hybrid instructional models	Subjective teacher judgments may lead to inconsistent correction strategies
Foote J. A. et al. (2016)	Observation of pronunciation teaching practices in communicative classrooms	Reveals real classroom pronunciation instruction gaps; identifies lack of systematic correction	No intervention or learning outcome measurement; descriptive focus	Provides foundation for structured pronunciation teaching systems	Continued incidental correction may reinforce fossilized pronunciation errors

Continuation of Table 2

1	2	3	4	5	6
Bondareva, N. K., (2025).	Corrective feedback framework	L1-specific error analysis; detailed CF taxonomy; pedagogically balanced	No empirical validation; purely theoretical	Basis for hybrid correction models; classroom experimentation	Overcorrection risks; inconsistent teacher application
Silpachai A. et al., (2024).	CAPT feedback accuracy analysis	High methodological rigor; novel CF threshold concept; strong statistics	Short intervention; segmental-only focus	Defining optimal feedback accuracy standards	Misapplication of low-quality feedback
Dennis N. K., (2024).	AI-powered speech recognition training	Statistically ignificant improvement; high learner engagement; clear intervention design	Small sample size; no control group; short duration	Long-term implementation; L1-adapted AI feedback	Technology access issues; over-reliance on automation
Dja'far V. H., Hamidah F. N., (2024).	AI-based ASR pronunciation practice	Experimental-control design; measurable learning gains; effective feedback	Reading-focused tasks; limited spontaneous speech analysis	Broader EFL contexts; multimodal assessment	Limited transfer to communicative speaking
Spring R., Tabuchi R., (2022).	ASR-guided pronunciation training	Long intervention period; error-specific improvement; strong effect sizes	Small participant group; single L1 context	Adaptation for Kazakh/Russian learners; hybrid instruction	ASR misrecognition; learner cognitive overload

Corrective feedback played a central role in traditional pronunciation instruction. Studies focusing on Russian-speaking EFL learners emphasized that analytic-imitative approaches combined with explicit corrective feedback helped address fossilized pronunciation errors and L1 phonological transfer [6]. However, studies also noted that excessive correction or insufficient attention to learners' affective factors could negatively influence confidence and fluency. [7]

Overall, traditional methods appear particularly effective for learners at beginner and intermediate levels, especially in contexts where strong L1 influence exists. Nevertheless, their effectiveness depends heavily on teacher expertise and instructional consistency, which may limit scalability.

The remaining four studies investigated technology-assisted pronunciation correction, primarily through AI-powered speech recognition, automatic speech recognition (ASR), and computer-assisted pronunciation training (CAPT) systems. These studies generally reported positive effects on learners' pronunciation accuracy and speaking performance. AI- and ASR-based tools provided immediate feedback and opportunities for repeated practice, which contributed to increased learner autonomy and engagement [8], [9]. For instance, Dennis N.K. utilized Google Cloud Speech-to-Text and AI-based recognition tools to demonstrate that such applications provide immediate diagnostic feedback, significantly enhancing segmental accuracy. Similarly, Dja'far V.H, Hamidah F.N. focused on the ELSA Speak mobile application, showing that its AI-driven interface helps learners improve professional English pronunciation through interactive sessions. One study emphasized that automated feedback does not need to be perfectly accurate to be pedagogically effective, as long as it meets a basic level of reliability [7]. Furthermore, Spring R., Tabuchi R. employed EnglishCentral, an ASR-based platform, emphasizing that its effectiveness is highest when used for guided, repetitive practice of specific phonemic contrasts. These tools act as a bridge between theoretical phonetic knowledge and spontaneous speech production.

Despite these advantages, several limitations were identified. Technology-assisted approaches showed weaker effects on spontaneous speech. They also proved less effective for correcting complex consonantal contrasts. In addition, short intervention periods and small sample sizes limited conclusions about long-term effectiveness. These findings suggest that technology alone may not be sufficient to address deeper phonological issues related to L1 interference.

A comparison of the reviewed studies reveals that traditional and technology-assisted pronunciation correction methods serve different but complementary functions. Traditional approaches are particularly effective for developing phonetic awareness and addressing L1 specific pronunciation problems through explicit instruction. In contrast, technology-assisted methods excel in providing frequent practice, immediate feedback, and increased learner motivation.

Importantly, none of the reviewed studies proposed a fully integrated instructional model combining both approaches. This directly reflects the research gap identified in the Introduction: most studies examine traditional and technology-assisted methods separately rather than as part of a unified pronunciation correction framework.

Although several studies addressed pronunciation correction in EFL contexts, very few focused explicitly on Kazakh or Russian speaking learners. Research involving Russian speaking EFL learners demonstrated that explicit phonetic instruction and corrective feedback are effective in addressing fossilized errors and L1 interference [6]. However, there is a lack of empirical research examining how AI-based tools can be adapted to the specific phonological challenges of Kazakh and Russian speaking learners. Given the phonological characteristics of these languages, such as consonant clusters and stress patterns, a hybrid instructional model appears most appropriate. Explicit instruction can address articulatory difficulties, while technology-assisted tools can support sustained practice and learner autonomy.

Taken together, the results confirm that both traditional and technology-assisted pronunciation correction methods can improve EFL learners' pronunciation. However, their effectiveness varies depending on instructional context, learner characteristics, and pronunciation features targeted. The absence of integrated instructional models and L1-specific research for Kazakh and Russian speaking learners highlights a clear gap in the existing literature.

This systematic review therefore supports the need for future research that combines traditional phonetic instruction with AI-based pronunciation tools and evaluates their effectiveness through longitudinal and L1-sensitive research designs Table 3. To translate these findings into classroom practice, a structured framework for different learner levels is provided in the table below:

Table 3 – Practical Recommendations for EFL Pronunciation Correction

Proficiency Level	**Recommended Tool & Strategy**	**Practical Application (L1-sensitive focus)**	**Expected Outcome**
Beginner	IPA & Minimal Pairs + Visual Feedback	Practicing sound-discrimination (e.g., hit vs heat) to address vowel length issues common in Kazakh/Russian speakers.	Improvement in segmental accuracy and phonemic awareness.
Intermediate	ELSA Speak / AI Mobile Apps	15-minute daily sessions focusing on specific phonemes; receiving immediate diagnostic feedback on accuracy.	Increased learner autonomy and reduced psychological anxiety.
Advanced	Google Speech-to-Text / EnglishCentral	Recording long-form speech to test intelligibility; identifying prosodic errors through ASR-generated transcripts.	Enhanced fluency, rhythm, and overall communicative competence.

Conclusion

The purpose of this study was to systematically review methods for correcting pronunciation in learners of English as a foreign language (EFL). The focus was on both traditional and technology-assisted approaches and their relevance for Kazakh and Russian speaking learners. The

study employed a systematic review methodology based on qualitative analysis of ten peer-reviewed studies selected according to predefined inclusion and exclusion criteria.

The findings indicate that traditional pronunciation correction methods, including explicit phonetic instruction and corrective feedback, are effective in addressing first-language interference and segmental pronunciation errors. Technology-assisted approaches based on Artificial Intelligence (AI) and Automatic Speech Recognition (ASR) were found to increase learner autonomy and practice intensity. However, their independent use showed limited effectiveness in correcting complex phonological errors. The results support the conclusion that a hybrid instructional model integrating traditional methods with technology-assisted practice provides the most effective framework for pronunciation correction.

The results of this study can be applied in school and university EFL classrooms to design structured pronunciation instruction combining teacher-guided phonetic training and AI-supported practice. Based on the synthesized evidence, this review provides a set of practical recommendations for learners, categorized by proficiency levels, to effectively integrate AI tools like ELSA Speak and EnglishCentral into their study routines. Future research should focus on empirical and longitudinal studies to evaluate the effectiveness of hybrid pronunciation correction models in Kazakh and Russian speaking EFL contexts.

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МЕТОДЫ КОРРЕКЦИИ ПРОИЗНОШЕНИЯ ДЛЯ ИЗУЧАЮЩИХ АНГЛИЙСКИЙ ЯЗЫК КАК ИНОСТРАННЫЙ: СИСТЕМАТИЧЕСКИЙ ОБЗОР

Аннотация. В данной статье представлен систематический обзор методов коррекции произношения у обучающихся, изучающих английский язык как иностранный (EFL). Цель исследования заключается в сравнительном анализе традиционных и технологически ориентированных подходов к коррекции произношения, а также в оценке их эффективности для казахско и русскоязычных обучающихся. Материал исследования включает десять научных статей, опубликованных в период с 2016 по 2024 год и отобранных в соответствии с заранее установленными критериями включения и исключения. В работе использована методология систематического обзора, основанная на качественном синтезе результатов отобранных исследований.

Результаты исследования показывают, что традиционные методы обучения произношению, включающие прямое фонетическое обучение, упражнения на основе МФА (IPA) и стратегии корректирующей обратной связи, являются эффективными в снижении влияния родного языка и повышении точности сегментного произношения. В то же время подходы, основанные на технологиях искусственного интеллекта (AI) и автоматического распознавания речи (ASR), способствуют развитию учебной автономии и расширению практики, однако демонстрируют определённые ограничения в самостоятельной коррекции сложных фонологических ошибок. В связи с этим в исследовании обосновывается эффективность гибридной модели обучения, сочетающей традиционное обучение произношению с практикой, основанной на технологиях. Полученные результаты обладают как научной, так и практической значимостью и могут быть использованы для совершенствования обучения произношению в EFL-классах, а также для определения направлений будущих эмпирических исследований.

Ключевые слова: коррекция произношения; обучающиеся EFL; традиционные методы; AI-ориентированное обучение; гибридная модель обучения.

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АҒЫЛШЫН ТІЛІН ШЕТ ТІЛІ РЕТІНДЕ ҮЙРЕНУШІЛЕРГЕ АРНАЛҒАН АЙТЫЛЫМДЫ ТҮЗЕТУ ӘДІСТЕРІ: ЖҮЙЕЛІ ШОЛУ

Аңдатпа. Бұл мақала ағылшын тілін шет тілі (EFL) ретінде меңгеретін білім алушылардың айтылымын түзету әдістеріне арналған жүйелі шолуды ұсынады. Зерттеудің мақсаты – айтылымды түзетудің дәстүрлі және технологияға негізделген тәсілдерін салыстырып, олардың қазақ және орыс тілді білім алушылар үшін тиімділігін бағалау. Зерттеу материалы алдын ала анықталған енгізу және шығару критерийлеріне сәйкес іріктелген, 2016–2024 жылдар аралығында жарияланған он ғылыми мақаладан тұрады. Зерттеуде таңдалған еңбектердің нәтижелерін сапалық тұрғыдан жинақтауға негізделген жүйелі шолу әдіснамасы қолданылды.

Зерттеу нәтижелері фонетиканы тікелей оқыту, IPA-ға негізделген жаттығулар және түзетуші кері байланыс стратегияларын қамтитын айтылымды дәстүрлі оқытудың ана тілінің ықпалын азайтуда және сегменттік айтылым дәлдігін арттыруда тиімді екенін көрсетті. Ал жасанды интеллектке (AI) және автоматты сөйлеуді тану (ASR) технологияларына негізделген тәсілдер білім алушылардың дербестігін арттырып, кең көлемде жаттығу жасау мүмкіндігін қамтамасыз еткенімен, күрделі фонологиялық қателерді өздігінен түзетуде белгілі бір шектеулерге ие екені анықталды. Осыған байланысты зерттеу дәстүрлі айтылымды оқытуды технологияға негізделген практикамен ұштастыратын гибридті оқыту моделінің тиімділігін негіздейді. Алынған нәтижелер ғылыми әрі практикалық маңызға ие болып, EFL сыныптарындағы айтылымды оқытуды жетілдіруге, сондай-ақ болашақ эмпирикалық зерттеулерге бағыт-бағдар беруге мүмкіндік береді.

Тірек сөздер: айтылымды түзету; EFL үйренушілер; дәстүрлі әдістер; AI-ге негізделген оқыту; гибридті оқыту моделі.

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ЖАЛПЫ БІЛІМ БЕРЕТІН МЕКТЕПТЕ БИЛЕР МҰРАСЫН ӘДЕБИ-ТАНЫМДЫҚ ТҰРҒЫДА ОҚЫТУ

Аңдатпа. Мақалада қазақ халқының рухани-мәдени болмысындағы билер институтының маңызы мен шешендік өнердің тәрбиелік, танымдық қызметі қарастырылады. Жалпы білім беретін мектепте билер мұрасын әдеби-танымдық бағытта оқытудың тиімді жолдары мен әдіс-тәсілдері сипатталады. Мақаланың негізгі мақсаты - билер мұрасын әдеби-танымдық тұрғыдан оқытудың тиімді әдістерін анықтап,оны ұлттық сана мен тілдік мәдениетті қалыптастыру құралы ретінде қолдану. Зерттеу барысында шешендік сөздердің құрылымы, стильдік ерекшеліктері,түрлері мен мазмұнына талдау жасалып, білім беру үдерісіне интеграциялау жолдары ұсынылды. Сондай-ақ оларды оқу үдерісіне кіріктіру мүмкіндіктері талданды. Ұлттық сана, тарихи таным, тілдік мәдениет қалыптастыруда би-шешендердің мұрасы маңызды рухани-танымдық құрал ретінде танылды. Мақалада билердің даналық сөздері мен шешендік дәстүрі оқушылардың ұлттық сана-сезімін, тарихи танымын, тілдік мәдениетін және сын тұрғысынан ойлау қабілетін дамытудағы маңызды рухани құрал ретінде таныстырылады. Билер мұрасын оқытудың мазмұндық-коммуникативтік, контекстуалды-тарихи және интерактивті-шығармашылық бағыттары нақты мысалдар арқылы дәйектеледі. Қорытындысында билердің шешендік сөздері мен әділ билігі халықтың рухани әлемі мен құқықтық және эстетикалық мәдениеттің көрінісі ретінде бағаланып, оны қазіргі мектеп оқушыларына ұлттық сана мен тілдік мәдениетті қалыптастырудың тиімді тетігі кені анықталады.

Тірек сөздер: билер мұрасы, шешендік өнер, әдеби-танымдық бағыт, ұлттық құндылықтар, тіл мәдениеті, оқыту әдістемесі, мәтіндік талдау.

Кіріспе

Қазақ халқының дәстүрлі дүниетанымында билер институты қоғамдық өмірді реттеуші маңызды әлеуметтік тетік қызметін атқарған. Ел бірлігін сақтау, даулы мәселелерді әділ шешу ісінде тарихи тұлғалардың шешендік мұрасы мен парасатты пайымдары айрықша мәнге ие. Олардың өнегелі ойлары мен тапқыр сөздері ұлттың адамгершілік құндылықтарын қалыптастыруға ықпал етіп, азаматтық жауапкершілік пен әділдік қағидаларын орнықтырды.

Қазақ қоғамында шешендік өнер жоғары бағаланып, сөз қадірін білетін тұлғалар ерекше құрметке ие болған. Арнайы білім беретін мектептер болмағанымен, би және шешен мәртебесіне жету белгілі әлеуметтік әрі моральдық талаптармен айқындалды. Би болу - ресми сайлау арқылы емес, ел ішіндегі беделге, ақсақалдардың келісіміне және халықтың мойындауына негізделді. Бұл дәрежеге салт-дәстүрді жетік меңгерген, ру-тайпа шежіресін білетін, ойы орнықты, сөзі нық, ата-тегі айқын әрі қоғам алдында сенімге ие адамдар ғана