



DOI: 10.54919/physics/56.2024.143bd4

Prevention of cross-language interference in the context of trilingual education (Russian, Kazakh, and English languages)

Marina Knol*

Karaganda Buketov University
100024, 28 Universitetskaya Str., Karaganda, Republic of Kazakhstan

Dariya Assanova

Karaganda Buketov University
100024, 28 Universitetskaya Str., Karaganda, Republic of Kazakhstan

Gulnara Smagulova

Karaganda Buketov University
100024, 28 Universitetskaya Str., Karaganda, Republic of Kazakhstan

Elmira Uteubayeva

S. Seifullin Kazakh Agro Technical Research University
010011, 62 Zhenis Ave., Astana, Republic of Kazakhstan

Gulden Akbaeva

Karaganda Buketov University
100024, 28 Universitetskaya Str., Karaganda, Republic of Kazakhstan

Abstract

Relevance. The relevance of the study lies in the fact that in the modern world, trilingual education is becoming increasingly common, necessitating the exploration of methods, exercises, and approaches to reduce interference phenomena in language learning.

Purpose. The purpose of the study is to identify factors contributing to cross-language interference in trilingual education and to develop strategies and methods for its prevention and minimisation.

Methodology. To achieve the purpose, the following methods were used: hypothetical-deductive, questionnaire, correlation analysis, and comparative.

Results. Results revealed key factors influencing cross-language interference across Russian, Kazakh, and English languages. They cover various language levels such as vocabulary, grammar, phonetics, as well as sociocultural aspects. The study highlights various methodological strategies and approaches that can be successfully applied to prevent cross-language interference, emphasising the active role of both learners and educators in the prevention process. Comparative analysis of English language instruction within trilingual education revealed that the majority of errors in oral and written language usage were linked to native language interference. It was also established that the degree of development of the relevant skills of students in both groups increased. However, in the first group, the growth rate reached an average of about 50%, while in the second group, the shift ranged from 25% to 38%.

Suggested Citation:

Knol M, Assanova D, Smagulova G, Uteubayeva E, Akbaeva G. Prevention of cross-language interference in the context of trilingual education (Russian, Kazakh, and English languages). *Sci Herald Uzhhorod Univ Ser Phys.* 2024;(56):1434-1443. DOI: 10.54919/physics/56.2024.143bd4

*Corresponding author



Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

Conclusions. The study concludes that preventing cross-language interference in trilingual education (Russian, Kazakh, and English) requires targeted strategies and methods. Key factors influencing interference include vocabulary, grammar, phonetics, and sociocultural aspects. Effective prevention involves active participation from both learners and educators, with a focus on methodological strategies tailored to the specifics of trilingual education.

Keywords: lexical skills; linguistic system; instructional materials; exercises; speech interaction.

Introduction

Contemporary education has become an integral part of global internationalisation, and many learners are faced with the challenge of mastering multiple languages simultaneously [1]. Trilingual education, offering the opportunity to study three languages – Russian, Kazakh, and English, is a crucial component of an effective educational process.

Proficiency in each of them is a key element of successful communication and understanding. The learning process is confronted with the challenge of balancing linguistic purity while facilitating successful language acquisition.

It is important because students may grapple with issues related to their linguistic identity and the choice of appropriate strategies. They are at risk of cross-language interference, which can lead to confusion and language use errors.

In addition, the modern world is characterised by an increasingly growing globalisation and diversity of cultural aspects [2]. In this context, multilingual educational environments are becoming common and relevant. They reflect the internal and external multilingualism of learners, providing them with the opportunity to master multiple languages simultaneously [3].

However, they come with a set of unique challenges and issues that require special attention and transformation of educational programmes. The problem of this study lies in the development of methodologies and strategies that contribute to more effective and high-quality language education in multilingual environments, considering the reduction of interference phenomena during the learning process.

There are numerous studies dedicated to the investigation of cross-language interference. For example, K. Koptleuova et al. [4] considered multilingualism as the primary educational system. This study disclosed the contemporary language situation in the Republic of Kazakhstan. The authors emphasised the importance of proper promotion of an educational paradigm aimed at eliminating cross-language interference.

However, the researchers did not reflect on measures to prevent such phenomena within educational institutions. A.B. Ormanova and M.L. Anafinova [5] analysed linguistic interference in the information space. Researchers conducted a corpus study in the Kazakh language, considering the theory and practice of linguistics. The study identified aspects of interference occurrence in multilingual conditions. Nevertheless, the authors did not address the educational challenges faced by teachers in the context of existing cross-language interference.

A. Kambatyrova [6] examined the characteristics of linguistic ideologies in the educational process. The researcher revealed the mechanisms of cross-language

interference in various aspects, not only within institutions but also in student-parent communication. The author focused on the policy of trilingual education in Kazakhstan. However, the study did not highlight steps to eliminate interference phenomena within educational programmes.

N. Zhumay et al. [7] discovered specific features of multilingualism in Kazakhstan. Within the framework of the issue under study, the problems and prospects of multilingual education were identified. The researchers described various possibilities for solving the language problems facing students. However, the effectiveness of approaches in specific educational institutions was not studied.

Y. Sarmurzin et al. [8] examined the complex aspects of trilingual education policy. The authors presented a literary review of the possible causes of cross-language interference. The authors paid special attention to various grounds and pretexts for the development of this phenomenon. However, empirical data characterising the area of the educational process are not reflected in this study.

The purpose of the study is to determine the aspects of the influence of interference phenomena on the process of trilingual education, and form appropriate ways to reduce or prevent it. In this regard, the following tasks of this study can be distinguished:

- analyse the main characteristics, principles, and approaches for the prevention of interlanguage interference in the context of trilingual education;
- conduct a comparative analysis of the level of formation of lexical skills in the conditions of prevention of interlanguage interference in teaching English in the framework of trilingual education.

Materials and Methods

The material and methodological basis of the study consisted of the following methods: hypothetical-deductive, questionnaire, correlation analysis, and comparative. The hypothetical-deductive method at the stage of considering the problem of interlanguage interference in trilingual education allowed identifying and systematising patterns to prevent language errors.

It helped to identify the main trends and features in the manifestation of interlanguage interference among students, considering its various interpretations. Its elements led to identifying factors that directly affect this phenomenon within educational institutions. The method under study also allowed developing principles and strategies for preventing interlanguage interference that are applicable to the real conditions of trilingual education.

The questionnaire method at the stage of information collection allowed determining qualitative and quantitative data on the level of formation of lexical skills. 116 students of the N. Nurmakov Specialised Boarding School and 146 students of grades 7-11 of Nazarbayev Intellectual Schools

in the city of Karaganda were involved in the examination of this method.

Data collection included 3 stages: an incoming online questionnaire, training by methodology, and an outgoing online questionnaire, which involved groups with the same language learning conditions, teaching methods, including educational and intellectual levels. The incoming and outgoing online questionnaires were conducted using the Google Forms form builder using the Likert scale to identify the level of lexical knowledge. Each answer option was assigned a quantitative value (from 1 to 10 points, where 10 is a low indicator, 5 is medium, and 1 is high).

The questionnaires were developed considering the key aspects affecting interlanguage interference: the structure of language, vocabulary, and grammar and included questions regarding lexical, discursive, and socio-cultural skills, the number of errors in spelling vocabulary and mispronunciations. This method allowed determining the attitude of students toward learning a foreign language, in particular English, and identifying the level of their preparation for its examination. It helped to establish indicators of the growth of lexical skills for the productive prevention of interlanguage interference in the context of trilingual education.

The correlation analysis method, using the Pearson correlation coefficient, allowed assessing the degree of connection between the level of interlanguage interference and the final level of lexical skills in 116 students. It helped to identify common trends in the level of formation of lexical skills and identify substantial differences between groups of students. Its elements allowed emphasising the need for attention to overcoming interlanguage interference in the process of teaching foreign languages to achieve a higher level of lexical competencies. This method has led to the establishment of crucial aspects that require attention and correction in the learning process, which affect the formation of lexical skills.

The comparative method at the stage of determining the differences and similarities between the groups allowed characterising the effectiveness of the practical exercises used. It helped to identify the main trends and note the influence of the mother tongue on the process of learning English in educational institutions. Its elements led to the establishment of mechanisms for preventing interlanguage interference.

The comparison between the groups of students allowed highlighting the most successful components of reducing the interference phenomenon, which requires special attention. This method allowed systematising and comparing the view on the processes of formation of lexical skills in the context of trilingual education, which is essential for identifying factors affecting interlanguage interference and developing effective strategies to prevent it.

Results

Scientific and theoretical foundations of the prevention of interlanguage interference in the context of studying Russian, Kazakh, and English languages

The interaction of Russian, Kazakh, and English languages in the context of trilingual education is a complex and multifaceted pedagogical problem that enters the context

of the modern world, where multilingualism becomes the standard and means for enriching the educational process and cultural experience. In such circumstances, students face identity-related challenges [9].

They must develop linguistic and cultural competencies in three different environments, which can affect the formation of their linguistic community. The interconnection of Russian, Kazakh, and English can lead to a phenomenon known as interlanguage interference when elements of one language are embedded in another. In trilingual education, students often encounter this phenomenon, which can affect the quality of their communication and understanding [10]. Teachers play a key role in solving this pedagogical problem.

They need to be prepared to work in a trilingual environment and be able to find a balance between the language needs of their students. Ultimately, trilingual education can be extremely enriching. It provides an opportunity to learn several languages, which enhances cultural literacy, increases competitiveness in the labour market and broadens the horizons of students.

Interlanguage interference is a phenomenon in which elements of one language affect the assimilation or use of another language [11]. In the context of trilingual education, such as teaching Russian, Kazakh, and English, it can manifest itself at different levels and have different characteristics. Interlanguage interference can lead to pronunciation errors at the level of phonetics and the sound system.

For example, sounds that are not present in one of the languages may be replaced by sounds from another speech, which may affect the correct pronunciation and understanding of speech. At the grammar level, this phenomenon can lead to errors in the formation of sentences, the use of tenses and modal verbs. Structures specific to one language can be used in another, often leading to illiterate speech.

At the lexical level, interlanguage interference can manifest itself in the borrowing of words and expressions from one language to another, which can lead to misunderstanding or the creation of incorrect phrases. Its detection may vary depending on various factors, such as the degree of knowledge of each language, their structure, similarities or differences in grammar and vocabulary, spelling, and linguistic and cultural aspects.

In order to prevent lexical interference, it is useful for students to keep separate dictionaries for each language being learned, where they will record new words and their meanings. When learning them, they should pay attention to concepts specific to each speech. Teachers can use semantic maps or synonymic tables to explain the differences in the meanings of words in different languages. This will allow students to better understand which words can be used and in which contexts.

Oral practice is especially important, as it helps to deal with lexical interference in real-time [12]. The prevention of phonetic interference in the study of Russian, Kazakh, and English languages plays an important role in ensuring linguistic purity and correct pronunciation.

Within its framework, students should carefully study the phonetics and phonemics of each language. This process involves knowledge of special phonemes and phonetic rules. It is important for teachers to draw their

attention to sounds that are characteristic of a particular linguistic system. An emphasis on intonation and rhythm can help eliminate negative linguistic pronunciation habits that may have developed as a result of phonetic interference.

It is important to adhere to the following methodological principles to prevent spelling interference when learning Russian, Kazakh, and English in a trilingual education: understanding the spelling of each language, eliminating confusion in similar characters, and regular writing practice. In turn, linguistic and cultural interference can lead to misunderstanding and use of language, and cause misunderstandings in intercultural communication [13].

It is recommended to adhere to the following methodological principles to prevent it, when studying Russian, Kazakh, and English: the analysis of cultural aspects, comparative analysis of cultures, development of intercultural competence. Also, examination of idioms and cultural proverbs, teaching cultural-specific context, examination of literature and art.

In general, to prevent interlanguage interference in trilingual education. It is important to develop and apply special learning approaches that consider the characteristics of each language and help students independently develop skills in each of them (Table 1).

Table 1. The main approaches for preventing interlanguage interference in the context of trilingual education

Approaches	Characteristics
Individualised approach	Students may have different levels of proficiency in each of the three languages. An approach focused on the level of knowledge of each of them allows developing language skills and abilities more effectively.
Targeted approach	Students should clearly understand which languages they are learning and what goals they pursue in learning each. This will help to avoid confusion and interlanguage interference.
Approach consisting of language blocks	The training can be divided into blocks dedicated to each of the languages. For example, a certain school week may be devoted to the appropriate language.
Contextual approach	It is important to use relevant contexts specific to each language to avoid interlanguage interference.
Resource approach	Teachers can use specialised learning materials and resources designed for trilingual education to help students understand each language more fully.
Communication approach	It is important to create a friendly environment and atmosphere where students can freely make mistakes, and teachers – provide feedback on each language.
Evaluation approach	Systematic testing and assessment of knowledge in each language will help track progress and identify areas where interlanguage interference manifests itself.

Source: compiled by the authors.

Combining these approaches will help students study successfully and avoid interlanguage interference when learning Russian, Kazakh, and English in a trilingual education. Lessons within the framework of the speeches in question should be conducted in different classrooms, with appropriate attributes and designations, so that students associate each language with a unique learning process. Also, stimulating multilingual communication outside of training sessions can help them apply each of the languages more confidently in real situations.

In addition, it is worth considering that when implementing the trilingual educational process, it is essential to consider the native language, during which its features are transferred to the speech being studied. Abandoning it induces damage, causes students to dislike foreign languages as academic subjects, and suppresses interest in linguistic cognition.

The mother tongue should be used carefully in foreign language lessons, but considering its features will prevent interlanguage interference. The student, relying on their native language, creates a linguistic system, which, during practical training, allows overcoming the interfering influence. Thus, within the framework of trilingual education, other basic principles of preventing or minimising cross-language interference can be identified, such as: the principle of developing linguistic flair and considering artificial subordinative trilingualism [14].

The first one plays an important role in preventing interlanguage interference, especially in the context of trilingual education. It is based on the fact that students should develop the ability to feel which speech is appropriate in a given situation and monitor the context to avoid mixing different languages.

In turn, the principle of considering artificial subordinative trilingualism is an important aspect of learning in environments where students learn three different languages, such as Russian, Kazakh, and English. Artificial subordinative trilingualism assumes that one language is the main (literary or dominant), and the other two are secondary. It allows for a more effective management of the learning process and prevents interlanguage interference, helping students to learn all three languages successfully. Educational institutions should identify the primary language that will be dominant in the learning process.

Teachers and methodologists need to adapt educational materials and methods to students' competence level in each language being studied. This will allow for training within specific language contexts [15]. The principle of subordinative trilingualism also implies the use of a synergistic teaching process, where language interaction is considered part of the educational programme, contributing to strengthening communicative skills and overall language competence improvement.

Thus, by analysing the scientific-theoretical features of cross-language interference in the context of learning Russian, Kazakh, and English languages, it was determined that this phenomenon is one of the main pedagogical problems in the process of trilingual education and requires a comprehensive approach. It includes teacher training, and the development of effective learning methods. Only in this way can quality language learning be ensured, contributing to the successful development of students in the modern multilingual world.

Therefore, studying the essence of cross-language interference and its manifestations at different levels is

important for educators and students in multilingual environments. It helps to successfully develop and apply various teaching methodologies that contribute to the effective acquisition of Russian, Kazakh, and English.

Teachers should promote the development of appropriate approaches and principles that facilitate an active process of language acquisition and help avoid interference and language mixing. It is important for them to consider the occurrence of this phenomenon at all levels of education to prevent student errors and enhance language competence in each studied language.

Comparative analysis of the level of lexical skill development in conditions of preventing cross-language interference in English language education within the framework of trilingual education

Cross-language interference arises when communication participants perceive reality, phenomena, and norms of

behaviour from another culture through the awareness of the worldview model. The causes of errors are multifaceted and result from complex factors [16].

Insufficient linguistic competence triggers the intervention mechanism, involving the transfer of habits acquired in the native language to the foreign one [17]. Trilingual education follows certain rules and uses familiar patterns that disrupt the correct structure of the foreign language [18].

In this context, the results highlight the level of lexical skill development in preventing cross-language interference in learning English. This is observed in the conditions of trilingual education in groups. The degree of corresponding correlations during exercises aimed at developing these competencies is also emphasised (Table 2).

Table 2. Results of the level of lexical skill development in the process of preventing cross-language interference in English language education within the framework of trilingual education in groups

No.	Grade	Lexical skills	Indicators of lexical skills (points)
1	7	Criteria	Points
		Discursive skills	1
		Socio-cultural skills	4
		The number of vocabulary mistakes	6
		Pronunciation with errors (interference)	5
2	8	Criteria	Points
		Discursive skills	3
		Socio-cultural skills	5
		The number of vocabulary mistakes	8
		Pronunciation with errors (interference)	7
3	9	Criteria	Points
		Discursive skills	3
		Socio-cultural skills	8
		The number of vocabulary mistakes	9
		Pronunciation with errors (interference)	6
4	10	Criteria	Points
		Discursive skills	2
		Socio-cultural skills	7
		The number of vocabulary mistakes	8
		Pronunciation with errors (interference)	4
5	11	Criteria	Points
		Discursive skills	2
		Socio-cultural skills	5
		The number of vocabulary mistakes	9
		Pronunciation with errors (interference)	5
6	7-11	Phonological interference	5

Source: compiled by the authors.

In percentage terms, these data appear as follows: 50% of students have a high level of lexical skills, 40% have an average level of lexical skills, and 10% exhibit a low level of lexical skills. The obtained data allow for the development of more effective methods for overcoming cross-language interference, especially for students with a low level of lexical skills.

Training programmes can be adapted, paying attention to the specificities of students with different levels of lexical skills. These results emphasise the importance of an individualised approach to education and highlight the need for additional measures to correct cross-language interference in the process of learning a foreign language. Now, the Pearson correlation analysis can be used to assess the impact of the level of cross-language interference on

the final level of lexical skills, using the Pearson equation (1).

$$Y = b_0 + b_1X + \varepsilon, \quad (1)$$

where: X – level of cross-language interference; Y – final level of lexical skills; b – mean correlation coefficient between X and Y.

The results of the Pearson correlation coefficient about the level of cross-language interference (X) and the final level of lexical skills (Y) for 116 students can be presented in the form of a table (Table 3).

Table 3. Pearson correlation analysis data on the level of cross-language interference and the final level of lexical skills

Indicator	Value
r	0.70
p	<0.001

Source: compiled by the authors.

In this case, r represents the strength and direction of the linear relationship between the level of cross-language interference and the final level of lexical skills, where the p-value indicates the statistical significance of this relationship. If $p < 0.05$, the relationship is considered statistically significant. The r value of 0.70 indicates a strong positive linear relationship between the level of cross-language interference and the final level of lexical skills.

The positive coefficient value suggests that with an increase in the level of cross-language interference, the level of lexical skills also increases. Therefore, cross-language interference has a significant impact on the development of lexical skills in students in the context of learning a foreign language (Table 4).

Table 4. Data on the level of development of lexical skills in groups according to the input and final sections

Group	The learning stage	Error rate (%)	Skill improvement level (%)
1	1	70	55
1	2	45	55
1	3	20	49
2	1	70	31
2	2	45	38
2	3	20	25

Source: compiled by the authors.

Therefore, based on the results, it can be emphasised that tasks aimed at increasing the level of lexical skill development have a positive effect. These tasks help prevent cross-language interference in English language education within the framework of trilingual education. They also contribute to the improvement of linguistic knowledge quality. Although interference causes errors in speech and writing, its impact can be reduced through the application of exercises that help students avoid the influence of their native language.

However, the number of errors occurring in the studied language under the influence of the native language can reach up to 70% errors. The level of linguistic skills and abilities in overcoming interference increased by 55% in

the first group and by 31% in the second group. At the second stage of learning a foreign language, the level of discursive skills and abilities increased by 55% in the first group and by 38% in the second group. At the third stage, the level of sociocultural knowledge, discursive skills, and linguistic skills increased by 49% in the first group, while in the second group, the indicator reached only 25%.

Thus, it can be observed that the quantitative indicator of students with a high level of lexical skills and low cross-language interference is 40%, the average level of lexical skills is 40%, and the low level of lexical skills in the initial survey is 20%, while in the final survey, it is 10%.

Comparing the results of this survey, it can be concluded that the level of cross-language interference is higher during the initial data collection than during the final one. However, the level of internal lexical skills of students in the outgoing group has increased, indicating a reduction in interference. Thus, the research on preventing cross-language interference in the context of trilingual education shows that defining the role of this phenomenon is much more complex than initially assumed.

Nevertheless, the results of the study unequivocally recognise cross-language interaction as one of the main mechanisms causing language errors. The influence of the native language on structures created in the cross-language environment of students is evident and inevitable. It is necessary to acknowledge the existence of errors as a natural phenomenon, but it cannot be ignored. Errors lead to the fixation of other incorrect constructions that are extremely difficult to eliminate.

This contradicts regular efforts to improve the effectiveness of foreign language teaching, despite the use of various teaching methods and the openness of teachers to pedagogical innovations. Hence, the need for constant comparative analyses.

A thorough analysis of students' cross-language communication by explaining erroneous structures, characteristics of the mechanisms of their formation, and an adequate taxonomy is an indispensable tool for preventing interference. The application of research results in pedagogical practice can not only help teachers understand the processes of the development of incorrect language manifestations but also make appropriate methodological decisions to reduce or prevent cross-language interference.

Discussion

Working with language errors of any kind requires methods and strategies that enable students to deepen their ability to identify and reflect on them. The interference elimination process should be focused on sensitisation and correction of student inaccuracies.

In this aspect, the interference phenomenon in the context of trilingual education has three relevant elements as its goal:

- awareness of the student in specific cross-linguistic or intralinguistic phenomena during the development of interlanguage competence;
- support for the recognition and identification of errors for self-correction;
- monitoring and clarification of errors that arise in the process of language learning.

I. Tsiplakides and A. Keramida [19] argue that to achieve the operationalisation of interference elimination mechanisms. It is necessary to stimulate self-correction and promote corresponding cognitive spaces where the learner can regulate the process of language knowledge.

This implies creating a dynamic and mixed environment that activates linguistic capabilities. Such a space suggests that the student, being the main link of positive correction, requires special attention from the teacher, who can minimise their anxiety and activate learning motivation.

The importance of such an educational process lies in its role aimed at reducing interference through awareness and productivity, focusing on the actions of educational subjects. The opinions of the researchers align with the obtained results, emphasising the importance of considering both the learner and the teacher as essential components for preventing cross-language interference in the context of trilingual education.

From the perspective of E.J. Erling and E. Moore [20], important elements for eliminating interference in the process of trilingual education include a series of corresponding methods for correcting errors in written expression, based on the identification process, as well as grammatical and pragmatic characteristics. These include:

- preparing lists of incorrect phrases extracted from the text, before which the student reflects on their mistakes to assess the seriousness of the problem;
- comparative analysis of grammatical explanations;
- corrections that should be monitored and reviewed by the teacher;
- rewriting the text with corresponding corrections.

Such error handling and reflection help to improve grammatical, pragmatic, and cultural knowledge, which has a positive and direct impact on the ability to communicate effectively in writing. In the classroom, teachers can use feedback strategies based on various types, such as clarifications, indirect questions, reformulations, and others.

However, it should be noted that the transmission of errors, due to the complexity associated with their analysis, can only be considered in a contrasting way to determine the interlinguistic or intralinguistic nature of the interference. The reasons for this can be explained by the difficulty of interpreting the source of the error and its contrast with the native language to distinguish similarities or differences that interfere with linguistic cognition.

The results of this study also emphasise the importance of taking diverse methodological actions into account to eliminate cross-language interference. It must necessarily involve searching for and analysing errors.

According to D. Lillo-Martin and J. Henner [21], linguistic knowledge of native language structures requires special differentiation at the lexical level, focusing on semantic aspects and structuring, as they are often not equivalent, leading to erroneous choices in both grammatical categories and word meanings. Therefore, teachers in their activities should consider not only methodological aspects but also grammar, linguistic, and theoretical foundations, representing the problem of the studied languages.

In the error identification stage, priority should be given to those reacting to cross-language categorisation to differentiate aspects that result from the influence of native speech. This procedure is relevant as it allows students to be aware of the nature of the error to more accurately define it and conduct appropriate observation in a specific form.

Identification may also depend on the type of errors that the teacher seeks to prevent, considering their global or local nature. In turn, characterisation, as a key element in the process of preventing language interference, includes recognising what type of errors the learner generates and how they can control them.

Most students are unaware of their linguistic system due to the automation carried by each student's native language. In this sense, they cannot independently determine where the errors come from. Data analysis notes that in the implementation of trilingual education, there is a constant influence of the native language, requiring consideration of various language components in the form of corresponding levels.

L.A. Jäger et al. [22] highlight that, during error analysis and categorisation, once an appropriate approach to the student has been established, preventing cross-language interference should focus on reflections. For this, the error must be characterised based on language parameters between the student and the teacher, allowing to determine to what extent the influence of the native language hinders learning and communication within foreign speech.

The process of preventing cross-language interference emphasises the importance of considering errors as part of linguistic study. In most cases, their correction involves more grammatical and lexical approaches out of context, prompting students to determine whether there is a direct influence of the native language.

Error handling should be a didactic resource aimed at facilitating learning and automating skills in trilingual education. Teachers need to guide their students towards reducing language interference, attempting to adapt various teaching models to goals, methods, and specific needs. Encouraging autonomy and monitoring will engage the learner in cognitive activities and instil personal responsibility.

An important point is also the emphasis on the development of individual programmes and methodological materials specifically aimed at correcting specific errors that may arise due to the impact of other languages being studied. This creates conditions for more effective assimilation of the material and prevention of long-term negative interference phenomena. The justifications of researchers resonate with the findings of this study, emphasising the importance of the error identification stage as the basis for subsequent effective prevention of interference phenomena.

Y. Cheng et al. [23] emphasise that successful overcoming of cross-language interference requires active collaboration and interaction between students and teachers. The teacher plays the role of mentor and organiser of the educational process.

It is crucial to provide students with appropriate materials, develop individual programs to eliminate errors, and offer opportunities for practical application of

knowledge. Professional teachers can also stimulate discussions on language peculiarities, conduct group sessions for sharing experiences, and create conditions for full immersion in the language environment.

The process of preventing cross-language interference also requires attention to lexical, phonetic, graphic, and socio-cultural aspects. Integrated and differentiated approaches, including various teaching methods, prove to be effective tools for developing skills, preventing errors, and creating conditions for the successful mastery of multiple languages simultaneously, especially in the context of growing globalisation and internationalisation.

Therefore, identifying language errors to prevent cross-language interference is an integral part of the educational process aimed at developing students' language competence. The results of the authors align with the conclusions drawn in this study, underscoring the need for the involvement of all participants in the learning process for productive prevention of cross-language interference, especially teachers, as coordinators and founders of linguistic knowledge.

Thus, analysing various aspects of preventing cross-language interference in the context of trilingual education has revealed that identifying language errors plays a key role in ensuring effective learning and reducing undesirable linguistic transfers between the languages being studied. The process of identifying and rectifying errors requires a systematic and attentive approach tailored to the individual needs of students and the specificity of each language. The role of the student and the teacher in this process is key and interrelated, creating the basis for improving language competence.

It is important that students take the initiative, ask questions, develop strategies to overcome difficulties and apply their knowledge in practice. The degree of involvement and independence of students in the learning process significantly influences the success of preventing cross-language interference.

Therefore, identifying language errors involves not only identifying incorrect grammatical constructions, lexical errors, or syntactic inaccuracies but also understanding their sources. Comparative analysis between languages and feedback at the learning stages allow identifying possible difficulties and preparing personalised interference prevention methods.

Conclusions

The study established that this issue poses a considerable challenge for educational systems where learners are exposed to multiple languages simultaneously. One key problem identified during the study is the need to develop and implement effective strategies to prevent cross-language interference.

This is crucial not only for improving language skills but also for fostering linguistic flexibility and cultural awareness. Understanding the mechanisms of cross-language interference and developing corresponding methods and approaches become key factors for success in trilingual education.

It is important to note that the interference issue can affect various aspects of language, such as vocabulary,

grammar, phonetics, and others, requiring a systematic approach to its prevention. Teachers and educational programmes should pay attention to the development of individual strategies for students based on their level of preparation, cultural features, and personal preferences. Interactive teaching methods, practical exercises, and intercultural projects can serve as effective tools in combating cross-language interference.

The importance of interaction between students and teachers should be underscored, where both parties actively participate in learning and jointly create a language environment conducive to error elimination. Collaborative efforts between students and teachers are directed not only at rectifying specific errors but also at forming language competence in a broader sense. Joint efforts of students and teachers are directed not only towards rectifying specific errors but also towards the development of language competence in a broader sense.

In addition, a comparative analysis of the proficiency level of lexical skills, in the context of preventing cross-language interference during the teaching of the English language within trilingual education, revealed that an equal portion of students possesses high and moderate degrees of language skill preparation. The survey results demonstrated a dynamic growth in lexical skills, indicating high marks in preventing cross-language interference in the teaching of the English language within the framework of trilingual education.

The analysis of the collected data at the entry and final points affirmed the effectiveness of applying relevant exercises to prevent cross-language interference. However, it was established that more than 50% of grammatical language errors in oral and written expressions indicate not only a lack of knowledge of specific rules but also significant interference from the native language.

Comparing three stages of linguistic abilities and knowledge development in overcoming interference revealed that the levels of proficiency within the development of certain skills increased on average by 50% in the first group and not less than 25% in the second. Thus, it can be emphasised that the study of cross-language interference in trilingual education is an important step in understanding the problems and opportunities that students face in learning Russian, Kazakh, and English languages.

The findings of the study can serve as a foundation for developing more effective educational strategies and programmes that contribute to successful learning in a multicultural and multilingual environment. Accordingly, it can be concluded that the purpose of the study has been achieved. Nevertheless, challenges in the implementation of methods to prevent cross-language interference in educational institutions require further investigation.

Acknowledgements

None.

Conflict of Interest

None.

References

- [1] Dietrich-Grappin S, Hufeisen B. Tertiary language didactics 2.0: A review of a multilingual didactics approach and its remodeling in the light of empirical research, translanguaging and compétence plurilingue. *Hung Ed Res J*. 2023;13(3):328-357.
- [2] Casillas JV. Interlingual interactions elicit performance mismatches not “compromise” categories in early bilinguals: Evidence from meta-analysis and coronal stops. *Languages*. 2021;6(1):9.
- [3] Sales AJ. Language interference and generative phonology in speech production among Hiligaynon native speakers. *REILA: J Res Innov Lang*. 2022;4(3):263-264.
- [4] Koptleuova K, Karagulova B, Zhumakhanova A, Kondybay K, Salikhova A. Multilingualism and the current language situation in the Republic of Kazakhstan. *Int J Soc Cult Lang*. 2023;11(3):242-257.
- [5] Ormanova AB, Anafinova ML. A linguistic interference in information space terms: A corpus-based study in Kazakh. *Theory Pract Lang Stud*. 2022;12(12):2497-2507.
- [6] Kambatyrova A. Parents’ language ideologies in the context of trilingual education policy in Kazakhstan. *Int J Multiling*. 2022;19(3):1-17.
- [7] Zhumay N, Tazhibayeva S, Shaldarbekova A, Jabasheva B, Naimanbay A, Sandybayeva A. Multilingual education in the Republic of Kazakhstan: Problems and prospects. *Soc Inklus*. 2021;9(1):56-62.
- [8] Sarmurzin Y, Amanzhol N, Toleubayeva K, Zhunusova M, Amanova A, Abiyar A. Challenging aspects of Kazakhstan’s trilingual education policy: Evidence from a literature review. *Asia Pac Ed Rev*. 2023;24(2):277-293.
- [9] Otero MR, Arlego MF. Teaching and learning optics in high school: From Fermat to Feynman. *Ed Sci*. 2023;13(5):503.
- [10] Peñaloza C, Grasemann U, Miikkulainen R, Kiran S. Modeling bilingualism as a dynamic phenomenon in healthy and neurologically affected speakers across the lifespan: A commentary on “computational modeling of bilingual language learning: Current models and future directions”. *Lang Learn*. 2023;73(S2):78-82.
- [11] Pan J, Lou L. Research on the phenomenon of “foreign language anxiety” based on individual differences of learners. *Creat Ed*. 2023;14:1759-1772.
- [12] Meigh KM, Kee E. Dissimilar phonemes create a contextual interference effect during a nonword repetition task. *Front Psych*. 2020;11:58-59.
- [13] Fujita H, Cunnings I. Interference and filler-gap dependency formation in native and non-native language comprehension. *J Exp Psych Learn Mem Cogn*. 2022;48(5):702-716.
- [14] Kim N, Brehm L, Sturt P, Yoshida M. How long can you hold the filler: Maintenance and retrieval. *Lang Cogn Neurosci*. 2020;35(1):17-42.
- [15] Wu Y, Silver RE. Trilingualism, education and ethnic language subjectivities. *J Lang Id Ed*. 2023;22(2):123-139.
- [16] Kemala Sari C, Qomariah N, Husein R. The use of trilingual languages by Gayonese and Batakese teachers in teaching English. *KnE Soc Sci*. 2021;5(4):189-199.
- [17] Cenoz J, Hufeisen B, Jessner U. Towards trilingual education. *Int J Biling Ed Biling*. 2001;4(1):1-10.
- [18] Smith G, Vasishth S. A principled approach to feature selection in models of sentence processing. *Cogn Sci*. 2020;44(12)
- [19] Tsiplakides I, Keramida A. The relationship between teacher expectations and student achievement in the teaching of English as a foreign language. *Eng Lang Teach*. 2010;3(2):22-26.
- [20] Erling EJ, Moore E. Introduction – Socially just plurilingual education in Europe: Shifting subjectivities and practices through research and action. *Int J Multiling*. 2021;18(4):523-533.
- [21] Lillo-Martin D, Henner J. Acquisition of sign languages. *Annu Rev Linguist*. 2021;7:395-419.
- [22] Jäger LA, Mertzen D, Van Dyke JA, Vasishth S. Interference patterns in subject-verb agreement and reflexives revisited: A large-sample study. *J Mem Lang*. 2020;111:104063.
- [23] Cheng Y, Rothman J, Cunnings I. Parsing preferences and individual differences in nonnative sentence processing: Evidence from eye movements. *App Psycholing*. 2021;42(1):129-151.

Запобігання міжмовному інтерференційному впливу в умовах тримовного навчання (російська, казахська та англійська мови)

Марина Кноль

Карагандинський університет імені академіка Є.А. Букетова
100024, вул. Університетська, 28, Караганда, Республіка Казахстан

Дарія Асанова

Карагандинський університет імені академіка Є.А. Букетова
100024, вул. Університетська, 28, Караганда, Республіка Казахстан

Гульнара Смагулова

Карагандинський університет імені академіка Є.А. Букетова
100024, вул. Університетська, 28, Караганда, Республіка Казахстан

Ельміра Утеубасва

Казахський агротехнічний університет імені С. Сейфулліна
010011, просп. Жєніс, 62, Астана, Республіка Казахстан

Гульден Акбаєва

Карагандинський університет імені академіка Є.А. Букетова
100024, вул. Університетська, 28, Караганда, Республіка Казахстан

Анотація

Актуальність. Актуальність дослідження полягає в тому, що у сучасному світі тримовне навчання стає все більш поширеним, що вимагає вивчення методів, вправ та підходів для зменшення феноменів інтерференції у вивченні мов.

Мета. Метою дослідження є виявлення факторів, що сприяють міжмовному інтерференційному впливу в умовах тримовного навчання, та розробка стратегій і методів для його запобігання та мінімізації.

Методологія. Для досягнення мети було використано такі методи: гіпотетико-дедуктивний, анкетування, кореляційний аналіз та порівняльний аналіз.

Результати. Результати виявили ключові фактори, що впливають на міжмовний інтерференційний вплив між російською, казахською та англійською мовами. Вони охоплюють різні рівні мов, такі як лексика, граматики, фонетика, а також соціокультурні аспекти. Дослідження підкреслює різні методологічні стратегії та підходи, які можуть бути успішно застосовані для запобігання міжмовній інтерференції, наголошуючи на активній ролі як учнів, так і викладачів у процесі запобігання. Порівняльний аналіз навчання англійської мови в умовах тримовного навчання виявив, що більшість помилок у усному та письмовому мовленні були пов'язані з інтерференцією рідної мови. Також встановлено, що рівень розвитку відповідних навичок студентів у обох групах зріс. Проте, у першій групі темп зростання досягав у середньому близько 50%, тоді як у другій групі цей показник коливався від 25% до 38%.

Висновки. Дослідження робить висновок, що запобігання міжмовному інтерференційному впливу в умовах тримовного навчання (російська, казахська та англійська) потребує цілеспрямованих стратегій та методів. Ключові фактори, що впливають на інтерференцію, включають лексику, граматику, фонетику та соціокультурні аспекти. Ефективне запобігання передбачає активну участь як учнів, так і викладачів, зосереджуючись на методологічних стратегіях, пристосованих до специфіки тримовного навчання.

Ключові слова: лексичні навички; мовна система; навчальні матеріали; вправи; мовна взаємодія.