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## THE BILINGUAL LINGUISTIC FOUNDATIONS FOR LEARNING A FOREIGN LANGUAGE

**Abstract.** This article explores the significant impact of bilingual linguistic foundations on the process of learning a foreign language, with particular emphasis on the context of trilingual education in Kazakhstan. It highlights the advantages and challenges associated with integrating the Kazakh, Russian, and English languages into the education system. In 2015, the Ministry of Education and Science initiated programs to increase the credit hours for language courses in universities and to train teachers to conduct subjects in English. In this regard, a policy to improve language education was implemented. These measures aimed to enhance the professional qualifications of educators and improve students' language proficiency levels.

Additionally, this scientific article highlights the cognitive, linguistic, and social benefits of bilingualism and multilingualism, such as improvements in brain structure, enhanced cognitive abilities, and better learning outcomes. It also presents a theoretical model of trilingual education designed to promote linguistic and cultural diversity, intercultural competence, and effective communication strategies. The findings suggest that multilingual education is becoming increasingly important in the global community, as it enables individuals to engage in professional activities, communicate effectively, and appreciate diverse cultures. The study concludes that Kazakhstan's trilingualism program is a forward-thinking approach that meets the modern demands of society and transforms the country into a linguistically favorable environment.

**Keywords:** bilingualism, trilingual, multilingualism, foreign language, influence, research.

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### Шет тілін үйренудің қостілді лингвистикалық негіздері

**Аңдатпа.** Бұл мақалада Қазақстандағы үштілді білім беру контексіне ерекше назар аудара отырып, екітілді лингвистикалық негіздердің шет тілін үйрену үдерісіне елеулі

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ықпалы зерттеледі. Ол білім беру жүйесіне қазақ, орыс және ағылшын тілдерін кіріктіруге байланысты артықшылықтар мен қиындықтарды көрсетеді. Білім және ғылым министрлігі 2015 жылы университеттердегі тіл курстарының кредиттік сағаттарын ұлғайту және пәндерді ағылшын тілінде өткізу үшін мұғалімдерді оқыту бағдарламаларын бастаған болатын. Осыған байланысты тілдік білім беруді жақсарту саясаты жүзеге асырылды. Бұл шаралар тәрбиешілердің кәсіби біліктілігін және оқушылардың тілді меңгеру деңгейін арттыруға бағытталған.

Сондай-ақ, бұл ғылыми мақалада қостілділік пен көптілділіктің ми құрылымының жақсаруы, танымдық қабілеттердің жақсаруы және оқу нәтижелерінің жақсаруы сияқты когнитивтік, лингвистикалық және әлеуметтік артықшылықтары атап көрсетіледі. Сонымен қатар, ол тілдік және мәдени әртүрлілікті, мәдениетаралық құзыреттілік пен тиімді коммуникация стратегияларын ілгерілетуге арналған үштілді білім берудің теориялық үлгісін ұсынады. Нәтижелер жеке адамдарға кәсіби қызметпен айналысуға, тиімді қарым-қатынас жасауға және әртүрлі мәдениеттерді бағалауға мүмкіндік беретін көптілді білім берудің жаһандық қауымдастықта маңыздырақ болып келе жатқанын көрсетеді. Зерттеу Қазақстанның үштілділік бағдарламасы – қоғамның заманауи талаптарына жауап беретін, елді лингвистикалық қолайлы ортаға айналдыратын озық көзқарас деген қорытындыға келеді.

**Кілт сөздер:** билингвизм, үштілділік, шет тілі, әсер ету, зерттеу.

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### **Двуязычные лингвистические основы изучения иностранного языка**

**Аннотация.** В статье исследуется значительное влияние двуязычных лингвистических основ на процесс изучения иностранного языка с особым акцентом на контексте трехязычного образования в Казахстане. В ней освещаются преимущества и проблемы, связанные с интеграцией казахского, русского и английского языков в образовательную систему. В 2015 году Министерство образования и науки инициировало программы по увеличению количества зачетных часов на языковых курсах в университетах и подготовке преподавателей для преподавания предметов на английском языке. В связи с этим была реализована политика по улучшению языкового образования. Эти меры были направлены на повышение профессиональной квалификации преподавателей и повышение уровня владения языком учащимися.

Кроме того, в этой научной статье подчеркиваются когнитивные, лингвистические и социальные преимущества билингвизма и многоязычия, такие как улучшение структуры мозга, улучшение когнитивных способностей и улучшение успеваемости. Кроме того, в нем представлена теоретическая модель трехязычного образования, направленная на поощрение языкового и культурного разнообразия, межкультурной компетентности и эффективных коммуникативных стратегий. Полученные результаты свидетельствуют о том, что многоязычное образование приобретает все большее значение в мировом сообществе, позволяя людям заниматься профессиональной деятельностью, эффективно общаться и ценить различные культуры. В исследовании делается вывод о том, что казахстанская трехязычная программа – это дальновидный подход, который отвечает современным требованиям общества, создавая в стране благоприятную с лингвистической точки зрения среду.

**Ключевые слова:** билингвизм, трехязычное образование, иностранный язык, влияние, исследование.

### Introduction

Education serves as the cornerstone for the development and prosperity of a nation. Since the early days of Kazakhstan's independence, First President N. Nazarbayev identified the promotion and sustainable development of education as a top priority [1]. Today, after nearly three decades of independence, education continues to receive significant attention as a crucial indicator of national development. The imperative task of nurturing a new generation of competitive individuals with high intellectual capabilities is pressing.

The evolution in education is facilitated by integration, globalization, and active collaboration among nations. This necessitates a reevaluation of educational objectives, goals, and methodologies to foster highly intelligent and culturally aware individuals capable of effective human communication (both personal and professional) and integration into a multicultural society.

The 21st century has been heralded by UNESCO as the age of polyglots and individuals proficient in multiple languages. Kazakhstan's education system has garnered support from the Council of Europe for fostering multilingualism, thereby prioritizing linguistic diversity as a significant component of the national education agenda. The introduction of a trilingual policy under the presidential initiative "Trinity of Languages" reflects this commitment [1].

According to strategic education development directives and state programs, Kazakh citizens are encouraged to be proficient in three languages, positioning them as global citizens. The Kazakh language represents national identity, Russian serves interethnic communication, and English facilitates integration into the global economy. This shift from bilingualism to multilingualism forms the foundation for multicultural development.

The necessity of trilingual education is enshrined in legislative frameworks such as Law No.151-I of June 11, 1997, on languages in Kazakhstan, and the strategic plan for education development until 2050. In his 2012 message, First President N.A. Nazarbayev introduced the "Kazakhstan-2050 Strategy", emphasizing the significance of supporting multiculturalism in a diverse nation. The strategy prioritizes fostering national patriotism among the new generation, underlining peaceful coexistence among different religions and cultures as essential for Kazakhstan's success and influence on the global stage [2].

President N.A. Nazarbayev's article "Looking into the Future: Modernization of Public Consciousness" outlines the country's path towards multilingualism, emphasizing the need for modernization of public consciousness to forge a unified, strong, and responsible nation. The article stresses the importance of cultural roots in modernization efforts and the essential role of spiritual modernization in reconciling diverse national consciousness.

In conclusion, the successful development and global integration of Kazakhstan's multilingual population necessitate the integration of diverse cultures into a cohesive polyculture and the enhancement of competitive human qualities relevant to the 21st century. The educational system's concept involves modernizing vocational training methods to meet global standards, with a particular focus on pedagogical excellence and innovative teaching practices. The relevance of this study lies in addressing the evolving needs of society, the demands for specialized training in multicultural settings, and the ongoing transformations in education and beyond.

So, this article aims to synthesize the theoretical foundations of linguistics, explore the impact of bilingualism on foreign language learning (specifically English) within the context of trilingual education, as practiced both domestically and internationally. Additionally, it delves into an analysis of definitions and principles/advantages of multilingualism as described in scholarly works.

### Research methods and materials

In pursuit of this objective, we employed methods to analyze scholarly literature, aiming to define and elucidate the concepts of "multilingualism" and "trilingualism." We interpreted examples from various authors in domestic and foreign pedagogy specializing in multilingualism, leading to the conclusion of the ongoing relevance of further exploration in multilingual education and highlighting the scientific novelty of our research. The scientific novelties of this study encompass:

1. The article provides *a theoretical justification for integrating trilingual education into the educational frameworks of Kazakhstan*. It assesses the preparedness of educational institutions to implement multilingual education, emphasizing the importance of Kazakh, Russian, and English languages in fostering a multilingual environment. This novelty highlights the significance of a structured approach to multilingual education in developing competitive professionals who can meet the social and cultural demands of society.

2. The article reveals that *bilingualism positively impacts cognitive functioning on learning third language*. It enhances brain activity, recall, and assimilation abilities, leading to better focus, attentiveness, and self-organization among students. This finding underscores the cognitive benefits of bilingualism, which extend beyond language learning and contribute to overall intellectual development.

3. Based on the materials studied, an attempt was made to develop a model of teaching a foreign language in educational institutions based on educational module "Intercultural communication" within the framework of trilingual education.

#### *Literature review*

The bilingual linguistic foundations for foreign language learning are a crucial aspect of language education. These foundations serve as a cornerstone for learners, providing them with a robust framework that extends beyond the confines of their native language. Proficiency in one's first language not only aids in the comprehension of grammar structures, vocabulary, and syntax but also fosters a deeper understanding of language as a whole. Bilingual individuals often possess enhanced cognitive abilities, such as analytical thinking and problem-solving skills, which contribute to more effective language acquisition. Moreover, a solid linguistic foundation enables learners to draw parallels between their native language and the target language, facilitating a more nuanced grasp of linguistic nuances and cultural subtleties. Ultimately, the bilingual linguistic foundations act as scaffolding upon which learners can construct their foreign language proficiency, promoting a comprehensive and interconnected approach to language education.

As Botes et al noted that bilingual and multilingual experiences have been shown to have positive effects on cognition, communication skills, and literacy, as well as on the enjoyment and anxiety of foreign language learning [3]. Therefore, it is important to understand the linguistic and cognitive aspects of foreign language learning from a bilingual perspective, and to apply the insights from research to educational practice [4, p. 279].

Bilingualism is a common phenomenon in today's world. However, it is necessary to establish a clear definition of the term "bilingualism," as some believe it refers to the ability to speak and write in only two languages, while others believe it encompasses two or more. Nevertheless, the majority of scholars do not limit this linguistic phenomenon to just two languages.

As A. Krupchenko noted in her work that bilingualism refers to the ability to speak and function in two or more languages. Also, it can be acquired through various means, such as having parents from different language backgrounds or being part of an ethnic minority or immigrant community [5].

Bilingual education, which aims to develop students who are bilingual, biliterate, and bicultural, has gained support and recognition in many countries. Further research is needed to understand the effects of bilingual education on students' academic outcomes in non-English

languages. Bilingualism induces brain adaptations at both macroscopic and cellular levels, with metabolic changes observed in bilingual individuals.

Galskova cited as “Bilingualism has been extensively researched and has been found to have numerous benefits across different age groups, especially children years, bilingualism enhances creativity” [6, p. 5-11]. It means that in young adults, bilingualism improves brain training, working memory, and selective attention. In older adults, bilingualism can improve cognitive reserve, mitigate dementia, and impact memory.

According to A.A. Zalevskaya, bilingualism as a natural phenomenon in society can be categorized based on several criteria, including an environment conducive to language development, absence of time constraints for interpersonal communication, and consistent practice in language use [7, p. 11].

From the above statement, it can be concluded that natural bilingualism among speakers of a dominant language includes:

- Intuitive understanding of the language through consistent practical application;
- No need for significant effort;
- Improvement of communication skills in a foreign language occurs unconsciously, including analysis and synthesis of speech;
- Automatic selection of words and constructing sentences;
- Code-switching between languages;
- Formation of two distinct images of the surrounding reality in the user's mind based on the characteristics of the languages used;
- Focus on deep comprehension of the meaning of what is being said, encompassing not only individual phrases but also the essence of the message [8, p. 14].

As E.A. Konovalov believes, in the process of forming natural bilingualism, the question of which language occupies clear primacy and which is mostly secondary is decided on the basis of a particular person, and the predominance of a particular language can vary not only during the entire time of use foreign languages, but also in various social situations [9, p. 264].

For example, O.B. Altynbekova divides “bilingualism into two factors – unilateral and bilateral”; she states: “With unilateral bilingualism, speakers of one of the contact languages will master the second language, but speakers of the other will not. In bilateral bilingualism, speakers of both contact languages become bilinguals. These types of bilingualism arise as a result of contact interlingual connections [10, p. 28].

K.B. Amanzholova expressed opinion about “unilateral bilingualism”: “One-sided bilingualism is the use of two languages in interethnic communication exclusively by native speakers of one language. Thus, bilingualism, consisting of the Kazakh and Russian languages, is one-sided if only Kazakhs can use the Russian language in interethnic communication, and Russians cannot communicate with Kazakhs in the Kazakh language. Bilateral bilingualism is the mutual use of two languages in interethnic communication between their speakers. For example, bilingualism, consisting of the Kazakh and Russian languages, can be recognized as bilateral only when both Kazakhs and Russians use both languages (both Kazakh and Russian) in interethnic communication. Thus, we can express our opinions about Kazakh-Russian and Russian-Kazakh varieties of bilingualism in Kazakhstan [11, p. 33].

As Z.K. Akhmetzhanova believes, it would be optimal to distinguish four stages in the development and spread of bilingualism in the territory of the Republic of Kazakhstan. The first stage occurred at a time when there was a need for the indigenous population to interact in one way or another with neighboring states within the framework of commodity-market or political relations. The second stage should be designated as the time period when the Kazakh population was in close contact with the Russian population, which marked the beginning of Russian-Kazakh bilingualism, which is a fundamental element in the system of modern bilingualism in Kazakhstan. The third

stage was laid in the era of the Soviet Union, while the foundation in the linguistic field was the spread of the Russian language as the basic means of communication between representatives of different republics of the USSR. The fourth and final period was marked by the period of time when the Kazakhstan Republic became autonomous, Kazakh was recognized as the official language at the state level, and Russian became international [12, p. 235].

L.S. Vygotsky suggested in 1935 that bilingualism cannot affect the user in any other way than positively. He believed that if a person is able to express himself and his thoughts through several language systems, then this definitely indicates a higher level of development compared to those who can do this only using one language. It also shows that bilinguals are able to structure their thinking in different ways and to convey ideas in different ways. Likewise, bilingualism has a positive effect on a person's memory training, his creative abilities and abstract thinking [13, p. 134].

A significant contribution to research into the impact of bilingualism on an individual's intellectual and social abilities was made by Canadian scientists Kaushanskaya and Prior, who studied this phenomenon by observing a group of students in Montreal [14, p. 23]. Thus, the following conclusions were drawn:

1. Bilinguals are significantly superior to monolingual students in terms of intellectual development.
2. Bilingual students are better able to think creatively and come up with creative ideas more often than their monolingual peers.
3. Bilinguals are able to solve complex problems and find non-standard solutions to situations, since this allows the plasticity of their thinking, which is confirmed through final testing [15, p. 255].

It was this study that inspired other scientists to take up the issue of bilingualism, and later multilingualism. Subsequent works, written between the 70s and 80s of the last century, confirmed the positive impact of bilingualism on social adaptation and the general level of child development. As a summary, it can be noted that the key results of the study were the following:

- Bilingual students are considered more sensitive to the semantics of words [16, p. 225–232];
- they are able to better express their thoughts and make interesting conclusions [17, p. 205];
- bilinguals are better able to solve problems that require verbal transformation and replacement of some words with others with a similar meaning [18, p. 498];
- such children process incoming information better and assimilate it more successfully [19, p. 1009];
- they know how to use analytical thinking to resolve non-verbal difficult situations;
- bilinguals are more creative people, their thinking is comparatively more flexible [20, p. 127].

It is worth noting that such benefits are greatly enhanced if the two languages used are developed at approximately the same level.

When introducing trilingualism into the education system in the Republic of Kazakhstan, it is necessary to note the influence of bilingualism on the study of a foreign language as a third language. From a linguistic point of view, in the process of learning a foreign language, both positive and negative factors of bilingualism can be noted, since each language, native and second, can have a significant impact on learning a new language.

Over the past decade, issues such as the theoretical and practical aspects of second and third foreign languages have been actively studied. A huge number of scientific works are concentrated on the degree of effectiveness of learning foreign languages based on linguistic national groups, or two or more languages through a gradual and consistent study of the characteristics of each, first separately, and then in tandem. Multilingualism implies, first of all, the creation of trilingualism, or trilingualism, artificially.

In the process of learning second and third foreign languages, students develop certain skills, which was noted more than once in the works of great linguistics as P.Ya. Galperin [21, p. 126], A.A. Mirolubov [22, p. 34–37] and others, as well as foreign scientists. The mentioned researchers include the following among the acquired abilities:

- observe surrounding social and other phenomena, combine them into a common picture of the world, compare facts and, on the basis of such developments, argue for your own conclusions and thoughts;

- acutely sense and quickly recognize certain linguistic features (for example, separate connecting words or articles of the English language from the specifics of the Kazakh language, etc.);

- develop intuition, expressed in deciphering the meaning of previously unstudied words in context;

- improve communication skills, since classes are often conducted in pairs or groups, but during individual classes such a student is able to demonstrate independence;

- develop auditory perception of a foreign text, improve the skills of competent sentence construction, as well as acquiring the ability to conduct a dialogue in a foreign language.

There are many studies and articles that provide evidence for the benefits of learning a second and third language for students. Here are some examples:

Xiaoyi et al. investigated the effects of learning a second or third language on students' linguistic, social, conceptual, cognitive, and metacognitive skills. They found that multilingual students performed better than monolingual students on various measures of these skills, such as vocabulary, grammar, pragmatics, intercultural competence, creativity, problem-solving, and self-regulation [23].

Jamie discussed the benefits of learning a second or third language for students' future opportunities, personal growth, educational, social, and cultural interactions. He argued that multilingual students have more advantages in the globalized world, such as access to diverse cultures, perspectives, and markets, as well as enhanced communication, collaboration, and critical thinking skills [24, p. 57].

Florian et al. examined the benefits of learning a second or third language for students' brain health and cognitive reserve. He explained that multilingualism can induce neuroplasticity, which is the ability of the brain to reorganize itself in response to new experiences and stimuli. He also showed that multilingualism can delay the onset of dementia and other cognitive impairments by increasing the brain's resilience and flexibility [25, p. 1–14].

According to the works of the authors mentioned above, by learning multiple languages simultaneously, students acquire several useful skills, both from a psychological and linguistic perspective. The works not only discuss the theoretical aspects of the research, but also experimentally prove an increase in the total number of neurons and the strengthening of internal intellectual connections during the process of learning one or more foreign languages. If these languages are studied in parallel, the mentioned changes in the human body multiply. Therefore, we can conclude that the more foreign languages an individual studies, the better their cognitive mentality becomes, their accumulated experience expands, and their thinking intensity increases.

At the same time, the communicative and cultural elements also undergo corresponding changes. The study of native and foreign languages differs fundamentally in structure, which is determined by the specific psycho-physiological mechanism of a person. In the case of foreign languages, the person's capabilities are not fully utilized, as this process can be seen as an artificial suggestion. While learning an unfamiliar language, an individual focuses on the linguistic component, without involving intuitive perception and other sensory functions of the brain. This limitation is logically explained by a number of aspects.

As a result, an individual learns a foreign language not through in-depth analysis, but only by covering a small range of knowledge. It is worth noting that the formation of second and subsequent foreign languages is directly related to the complicated processes of the psychophysiological component, which has a direct impact on the acquisition of new knowledge and the acquisition of new linguistic skills:

- Foreign languages interact on the basis of functional systems; in particular, interference processes are affected;

- Processes of mixed thinking are manifested, that is, the individual's ability to think and conduct a conversation in several languages equally freely, but certain features can alternately dominate each other [26, p. 145].

Therefore, learning a second or third foreign language can be a valuable skill for students, as it can improve their cognitive functions and academic performance.

Learning multiple languages can have profound effects on one's cognitive base, which is the set of mental representations and processes that underlie language use and comprehension. According to cognitive approaches to second language acquisition, learning a new language involves the formation of new constructions, which are the conventionalized form-meaning mappings used in a speech community [27]. These constructions can range from simple morphemes and words to complex phrases and syntactic frames. Learning multiple languages can thus expand one's cognitive base by adding new linguistic units and structures, as well as new ways of expressing and conceptualizing meaning. Moreover, learning multiple languages can also modify one's cognitive base by inducing neuroplasticity, which is the ability of the brain to reorganize itself in response to new experiences and stimuli.

Bilingualism and multilingualism can indeed alter the brain's structure and function. Research has shown that bilingual speakers exhibit structural and functional brain adaptations, including changes in grey matter thickness and white matter integrity. Studies have found that highly proficient multilinguals, fluent in four or more languages, show decreases in grey matter thickness in brain regions involved in lexico-semantic processing, memory retrieval, and control maintenance [28]. Additionally, bilingualism has been linked to structural adaptations in subcortical brain regions, such as the basal ganglia and thalamus, with volumes of these regions being positively predicted by bilingual experiences. These findings support the idea that bilingualism-induced brain restructuring follows non-linear patterns, with increases in volume followed by plateauing in the most experienced bilinguals [29]. Overall, bilingualism and multilingualism can lead to changes in the brain's structure, including alterations in grey matter density and white matter integrity, which are important for language control and processing.

Here are some real examples of authors who have written about the topic of how learning multiple languages can have profound effects on one's cognitive base:

Famous psychologist Midrigan-Ciochina explained how learning a new language changes the brain at a physical level, as well as boosting function and cognitive reserves. He cited various studies that showed how bilingualism and multilingualism can increase the density of grey matter, enhance the integrity of white matter, and delay the onset of dementia and other cognitive impairments [28].

Christos, Pliatsikas discussed the cognitive approaches to second language acquisition, which focus on the formation of new constructions, or conventionalized form-meaning mappings, in the learner's mind. They argued that learning multiple languages can expand and modify one's cognitive base by adding new linguistic units and structures, as well as new ways of expressing and conceptualizing meaning [29].

Also another psychologist Kramersch examined the benefits of learning a second or third language for students' brain health and cognitive reserve. He explained that multilingualism can induce neuroplasticity, which is the ability of the brain to reorganize itself in response to new



experiences and stimuli. He also showed that multilingualism can increase the brain's resilience and flexibility [30].

According to the opinion of T.M. Nadeina, in the subconscious of polylingualism, there is not the formation of another system, according to which the individual will be able to organically perceive new paradigms and features of the second language, but the creation of a new, that is, a third system that allows the native and foreign languages to interpenetrate each other into each other and intertwine with each other [31, p. 139].

In addition to the concept of interference, there is also the term transference, which implies the successful transfer of information from a new language to the native language system. As a result, you can see the difference between the speed of information processing, as well as the level of language proficiency in bilinguals and monolinguals.

The task of positive transfer is to create favorable conditions for the assimilation of new material, but interference can interfere with this. Ultimately, to organize such a process, it is necessary to take into account the actions of both the positive and negative aspects of interference.

Thus, analyzing and comparing the scientific results of research on multilingual education in native and foreign pedagogy, it is necessary to note a positive trend in the development of multilingualism in general. Fact, in the process of interference, all languages is interconnected, that is, native and foreign. In the process of learning the second language, the brain is rebuilt and begins to process information somewhat differently, reproduces the connections that currently dominate the language, and also restores certain characteristics. In this case, the native language comes to the rescue if the foreign language is not able to express the entire range of emotions and meanings that a person wants to convey.

### **Results and Discussion**

The previous sections of the scientific research described the theoretical basis for studying the linguistic foundations, as well as the influence of bilingualism on the study of a foreign language (English) within the framework of trilingual education. Consequently, there is a need for practical confirmation and description of the scientific results of the linguistic and bilingual influence on the study of a foreign language (English) within the framework of trilingual education in our country. Having studied the language policy and based on regulatory documents, we can draw the following conclusions about the work.

1. Guided by the developments and experiences of native and international scientists, and in accordance with the directives of the Head of State, attempts to introduce trilingualism began in 2013 in the Republic of Kazakhstan. Following the First President's decree, English language instruction was initiated in 1st grade. The updated State Standard for compulsory primary education [1] in the republic now includes provisions for a three-language education policy (Kazakh, English, Russian), accompanied by the necessary organizational adjustments for the pedagogical process. It is noteworthy that early foreign language instruction has been shown to stimulate deeper study and proficiency as students' progress through subsequent educational levels.

2. Through collaboration between the Ministry of Culture and Sports, the Ministry of Education, and the Ministry of Investment and Development of Kazakhstan, a Roadmap for the development of trilingual education for 2015–2020 was devised and ratified. The objectives of this roadmap in secondary schools are as follows:

- Modernizing educational programs across all levels of education;
- Ensuring seamless language learning across three languages within a unified educational framework;
- Enhancing teacher preparation and continuing education systems to effectively deliver instruction in three languages;

- Conducting research in this domain to enhance the efficacy of the trilingual education system;

- Promoting awareness and acceptance of the trilingual education initiative [2].

This initiative served as a potent mechanism for equipping the younger generation to thrive in a globally interconnected world. It facilitated in-depth study of the Kazakh language alongside Russian and English, enriching the educational process through technology and innovative teaching methodologies.

3. Furthermore, by the sixth year of schooling, general education subjects began to be taught in English. Educational programs and methodological materials corresponding to this transition were introduced as per the Ministry of Education and Science's directive starting from the 2020–25 academic year. Currently, 33 schools in Kazakhstan offer education in three languages, with English used for teaching science and mathematics subjects. Pioneering educational approaches, standards, and methodologies in secondary education are tested primarily in the Nazarbayev Intellectual Schools. Additionally, Kazakhstan hosts 15 Nazarbayev Intellectual Schools, 2 Miras International Schools, 2 Haileybury Schools, and 29 Kazakh-Turkish Lyceums offering multilingual education. In Kazakh-Turkish Lyceums, instruction is delivered in four languages: English for subjects in the natural and mathematical sciences, Kazakh for language and literature, history and geography of Kazakhstan, state and law fundamentals, and world history, Turkish for world geography, and Russian for Russian language and literature.

As a result, today in Kazakhstan there is a trend of positive dynamics in providing special conditions in secondary schools of the republic. Consequently, this implementation contributed to subject teachers mastering a new format of advanced training and gave teachers enormous opportunities to improve the quality of their professional skills. Subject teachers received knowledge on the updated content of secondary education, learned to apply trilingual education methods to improve teaching and learning of the subject, became familiar with interactive methods and methods of teaching, where they were able to demonstrate the use of new methods and English while working in the classroom.

4. Regarding universities in the Republic of Kazakhstan, the Ministry of Education and Science has taken concrete steps to introduce trilingual education: for example, the volume of loans for studying Kazakh, Russian and English languages in State Standards has been increased in all areas, which allows first-year students to study disciplines in the amount of 5 credits "Professional Kazakh / Russian language" and "Professionally oriented foreign language". Thus, the additional hours allowed students to increase their level of knowledge of the English/Russian language, since studying disciplines necessarily involves enriching vocabulary through profile-oriented terminology.

Since September 1, 2019, thirty-two universities in Kazakhstan have been training teachers to teach a number of disciplines in English. As a result of the active and successful implementation of the trilingual program in universities, a training system was created using distance and online technologies to promote three languages, teaching staff were trained in language courses (according to levels of foreign language proficiency), and the library collection of the multilingual educational, methodological, scientific, reference and other literature.

Additionally, considering the linguistic situation that has developed on the territory of the Republic of Kazakhstan, we can say with confidence that the Russian language seriously influences the study of other foreign languages, since it has maintained a strong position among the Kazakh population for a long time, it is deeply rooted in the consciousness of a bilingual. If the use of a particular language occurs not only in official, but also in everyday life and family settings, then consolidating it as the dominant one is a very real practice.

Analyzing the above studies in the field of bilingualism in the Republic of Kazakhstan, also, it is necessary to take into account the historical aspect, as well as the current political and social

situation, the degree of mutual influence of several languages on each other in education, culture and at the everyday level.

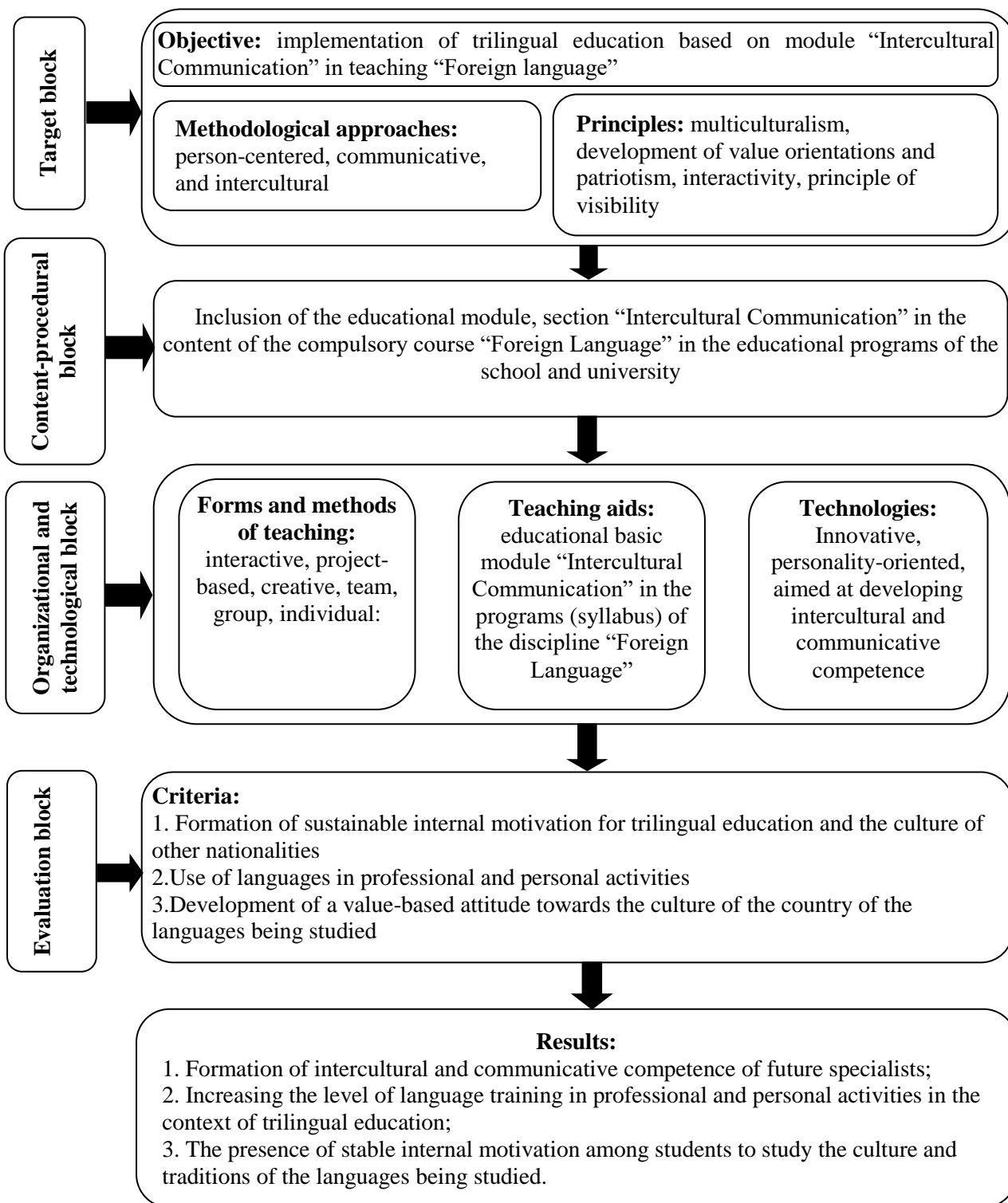


Figure 1– Model of trilingual education based on teaching a foreign language in educational institutions

On the territory of the Republic of Kazakhstan, the socialization of an individual occurs on the basis of the formation of certain values, as well as through constant interaction with compatriots

who speak several languages. This process is considered completely natural, since it occurs independently of the person. In the process of studying bilingualism, different scientists came to different conclusions; for example, in Soviet times it was assumed that bilingualism was fluency in two or more languages at the same time, and at approximately the same level. The main indicator was the ability to think in a particular language without auxiliary materials (dictionaries, reference books, etc.).

In rural areas, the situation is not encouraging - due to the lack of a favorable language environment, students cannot fully master foreign languages. Due to these circumstances, school and universities graduates limit their abilities, learning a foreign language becomes a more difficult task than if they were brought up from birth within the framework of bilingualism, as happens in urban areas. In urban areas, bilingualism develops more easily and quickly in children, as there is a constant process of communication and interaction of languages. Taking into account the considered concepts and facts, we propose the following model of successful third language learning and interaction in trilingual education in Kazakhstan (Figure 1).

Taking into consideration the concepts and facts discussed, we propose the following structure for a model that aims to successfully teach students in foreign language (English) in educational institutions in Kazakhstan within the context of trilingual education. This model includes the following components:

*The target block* provides a description of the goals, methodological approaches, and principles involved in the process of trilingual training for future specialists.

The goal, as formulated in the target block, is to utilize trilingual education as the foundation for teaching a foreign language. We have identified this target based on the relevance of the topic within the scope of our study, and thus, we can confidently assert that this process holds significant importance in modern pedagogical science.

To define and explore trilingual education and current trends in the professional development of future specialists, a set of *methodological approaches* should be implemented in the modeling of the educational process. These approaches include a student-oriented approach, a communicative approach, and an intercultural approach.

We have chosen these specific approaches in our study to address the challenge of acquiring and learning a foreign language within the framework of trilingual education. Our choice is based on the theoretical and practical research conducted by B. Zhetspisbaeva, K.B. Amanzholova, Z.K. Akhmetzhanova, S.D. Polatova [32].

As part of this study, it is necessary to note the analysis of scientific sources and describe in detail the advantages of the above approaches.

*A person-centered approach*, also known as student-centered approach, includes the idea that students have choices about what and how to learn. Learner-centered learning focuses on the learner's needs, abilities, interests, and learning styles, with the teacher serving as a guide for learning. Analyzing the above, it can be noted that these methodological approaches can help improve the effectiveness of learning a foreign language as a third language in the context of trilingual education.

*The communicative approach* is based on the idea that successful foreign language learning in trilingual education comes from the need to convey real meaning. When students are engaged in real-life communication, their natural language acquisition strategies will be used, allowing them to learn to use languages. The communicative method develops all language skills - from speaking and writing to reading and listening. That is, the goal of the communicative approach is to teach the student not only to speak fluently but also to speak correctly in a foreign language, based on basic knowledge of their native and second languages.

*An intercultural approach* to language teaching in a trilingual environment helps students acquire cultural skills as they develop proficiency in the four traditional skills (reading, writing,

listening, and speaking). The term “culture” and “intercultural communication” are fundamental parts of modern developing society in the present day. Thus, an intercultural approach to language teaching and learning considers the development of cultural understanding and the ability to use cultural knowledge to facilitate communication as the main goals of language learning, along with the development of language competence and language awareness.

The above approaches determine the following *pedagogical principles* that contribute to the implementation of a model of effective trilingual training of future specialists based on teaching a foreign language using innovative technologies:

1. The principle of multiculturalism is an educational process focused on the development of intercultural and communicative competence, and the formation of a multicultural personality in general.

2. The principle of developing value orientations and patriotism involves an educational process to identify value orientations among students, fostering awareness of the native culture and cultures of the countries being studied.

3. The principle of interactivity is the organization of the educational process aimed at creating comfortable learning conditions, non-standard teaching methods, and the use of innovative technologies, which makes the learning process itself productive, where the success and intellectual competence of students are revealed.

4. The principle of visibility involves the application and use of various means (technical - electronic textbook for teachers, Internet resources – webquest site for students, educational materials in the form of handouts) in the process of learning languages to develop the necessary skills and abilities.

Thus, it is the above approaches and principles that contribute to the effective organization of the trilingual educational process and the formation of a multicultural and multilingual personality in general. The main condition we have identified is multiculturalism, namely the trilinguality of the educational environment, taking into account the use of cultural and value orientations among future specialists at the university.

The content of *the organizational and technological block* focuses on the use of innovative technologies in various teaching methods and forms. Its purpose is to enhance the language training of students in both linguistic and non-linguistic fields, while also prioritizing the development of a curriculum centered on trilingual learning in foreign language education.

*The evaluation block* assesses the degree of accomplishment of these objectives and the implementation of the theoretical model. The evaluation criteria contribute to the effective language training of students in both language and non-language disciplines within the context of trilingual education.

The demonstrated model for effective training of future specialists in a trilingual education system can be characterized by the following elements:

- Integration: All components of the model are closely interconnected.
- Depth of Content: The aim is to cover a wide range of information to enhance the competence of future specialists in their chosen field.
- Pragmatism: The model emphasizes practical actions that promote the development of motivational, cognitive, value-based, professional, and personal competencies among future specialists.
- Applicability: The model is suitable for implementation in modern educational processes.

So, we believe that our model is designed to cultivate a well-rounded, multicultural, and multilingual individual within a trilingual educational environment. It is worth mentioning that the formation of intercultural and communicative competencies among our future specialists can be achieved through the implementation of this theoretical model. This model was developed and

tested during an experimental study focused on the objectives of trilingual education, and its results are described in the dissertation research [32].

Also, we would like to highlight that this comprehensive model underscores the holistic benefits of trilingualism, encompassing linguistic proficiency, cognitive advantages, cultural understanding, and societal contributions in enhancing communication and promoting intercultural harmony.

From the point of view of the social and moral side of the above points, the following practical advantages should be highlighted:

1. Formation and education of a multilingual personality capable of full communication, not limited only by the framework of ethnic culture and language.

2. Studying native, state and foreign languages, because the native language contributes to the preservation of the national, original and cultural heritage of the student. Knowledge of the state language contributes to its socialization within the framework of a given state. Knowledge of a foreign language is the language of successful integration into the global economy.

3. Inclusion of the educational module, section “Intercultural Communication” in the content of the compulsory course “Foreign Language” in the educational programs of the school and university. This innovative educational form can influence the formation of the necessary competencies among teachers, students of technical, humanitarian and other areas in educational institutions.

Additionally, to the above points, it should be added that all measures and actions for the development and successful implementation of multilingualism are provided for by state support, which is a strong motivation for learning foreign languages. As is known, in Kazakhstan, English as a means of international communication occupies an equal place next to Kazakh and Russian. Consequently, the main directions of the multilingual educational system in Kazakhstan are the creation of linguistic tolerance, pluralism in a multi-ethnic internal space, as well as external integration into the global community.

Thus, the study of trilingualism remains a subject of ongoing research, as scholars globally seek to establish a universal consensus on this concept. Drawing upon the expertise of scholars in this field, it is evident that bilingual individuals, compared to monolinguals, possess psychological and intellectual advantages. The acquisition of knowledge and skills through trilingualism is crucial for individuals aspiring to become specialists in their respective fields. The properties and qualities that one acquires while broadening their knowledge horizons are of paramount significance for an individual as a prospective specialist.

### **Conclusion**

Summarizing the findings of the study, it is evident that the influence of bilingualism on the learning of a foreign language (English) within the framework of trilingual education remains a significant subject for numerous research endeavors. The acquisition of a foreign language as a third language within the educational system is in its early stages, necessitating further investigation in various areas.

However, drawing from the researchers' expertise and insights highlighted above, it can be concluded that bilingual individuals possess various psychological and intellectual advantages over monolinguals. The qualities and attributes acquired through expanding one's knowledge horizons are crucial for individuals as future specialists.

Moreover, scientific literature on the acquisition of a third language primarily relies on the first (native) language and the second language, which may influence the pace of this process. Extensive research has focused on analyzing code switching and code mixing to gain insights into the mental processes involved in producing a third language. The findings indicate that third

language learners frequently rely on the second language as a “default provider” for successful acquisition.

Additionally, the conducted research reveals that individuals proficient in multiple languages outperform individuals who speak only one language in various aspects. Many scientists believe that language switching is a complex process that demands effort, leading to improved memory and attention. Bilinguals also possess greater control over inhibiting brain processes, resulting in enhanced overall brain function. They excel in processing incoming information and extracting key elements.

In-depth investigations conducted by researchers have frequently employed comparable strategies for bilingual and monolingual individuals when learning new (third) languages. Consequently, it is evident that bilinguals exhibit a higher proficiency in assimilating the material and swiftly applying it.

The implementation of trilingual education in Kazakhstan, which includes Kazakh and Russian as official languages while incorporating English as an additional international language, is best suited to meet the demands of contemporary society. This approach recognizes Kazakhstan as a linguistically favorable territory.

In conclusion, the theoretical foundations of multilingual education and the impact of bilingualism on learning a foreign language were analyzed. The study highlighted the numerous cognitive, linguistic, and social benefits of bilingualism and multilingualism, such as enhanced brain structure, cognitive abilities, and academic outcomes. The language situation and problems of teaching a foreign language as a third language in a bilingual environment in Kazakhstan were also noted. A theoretical model of trilingual education was created to promote a comprehensive understanding of navigating linguistic and cultural diversity within trilingual contexts. Thus, multilingual and multicultural education is gaining prominence globally, empowering individuals to participate in professional activities, communicate effectively, and gain insights into diverse cultures, traditions, and societies.

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