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Virtual Communication in Speech Practices of Functional Bilinguals

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Abstract: The article presents the results of a study on the relationship between communication in native and learned languages in offline and online communication systems. This study tests the hypothesis that the time of entry into and intensity of online communication influence instructed bilinguals' self-assessments of their proficiency in basic forms of communication. These forms include passive skills (listening comprehension, reading) and active skills (speaking, writing). The study was conducted on the material of bilingualism variants involving the Russian language, implemented in variable language situations in which Russian is native for bilinguals and the majority (Russian- English bilingualism), the second, studied, minority (Uzbek-Russian and Tajik-Russian). The relevance of the study is determined by the need to study two global trends in the development of modern society – the increasing role of virtual communication and bilingual practices in the world in general, and in the Russian Federation, in particular. The main research methods are a questionnaire to collect subjective assessments by respondents of the target characteristics of social and linguistic experience, statistical analysis in processing the obtained materials, sociolinguistic analytics. As a result of the analysis, zones of use of the second language in virtual speech practices of the active and passive type were identified in different language situations in three regions. It was found that, overall, the correlation between levels of the second language proficiency and the time to engage in online communication in the second language ranges from average to zero, varying significantly across the three bilingual groups studied, operating in variable language situations. The data obtained generally agree with the results of related studies conducted on other language pairs of bilinguals and in other regions, while also revealing unique features due to the unique language situations within which the studied types of bilingualism are formed. The findings presented are limited to a sample of respondents, primarily students and recent graduates of humanities faculties with a language specialization. As a research prospect, we consider expanding the sample by involving respondents with other aspects of social and linguistic experience.

Keywords: online communication, offline communication, functional bilingualism, Russian-English bilingualism, Tajik-Russian bilingualism, Uzbek-Russian bilingualism

Citation: Rezanova Z. I., Vladimirova V. E. Virtual Communication in Speech Practices of Functional Bilinguals. *Virtual Communication and Social Networks*, 2026, 5(2): 185–197. <https://doi.org/10.21603/vcsn-2026-5-2-185-197>

Received 6 Mar 2026. Accepted after review 27 Mar 2026. Accepted for publication 30 Mar 2026.

оригинальная статья

Виртуальная коммуникация в речевых практиках учебных билингов

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Аннотация: Цель – исследовать соотношение коммуникации на родном и осваиваемом языках в офлайн- и онлайн-коммуникации. В статье проверяется гипотеза о влиянии времени вхождения в онлайн-коммуникацию и активности ее использования на самооценку учебных билингов уровня владения такими базовыми формами коммуникации, как пассивные (понимание, чтение) и активные (говорение и письмо). Исследование проведено на материале вариантов билингвизма с участием русского языка, реализуемых в вариативных языковых ситуациях, в которых русский язык является родным для билингов и мажоритарным (русско-английский билингвизм), вторым, изучаемым, миноритарным (узбекско-русский и таджикско-русский билингвизм). Актуальность исследования определяется необходимостью изучения двух глобальных тенденций развития современного общества: увеличение роли онлайн-коммуникации и билингвальных практик в мире в целом и в Российской Федерации в частности. Основные методы исследования – анкетирование для сбора субъективных оценок респондентами целевых характеристик социального и языкового опыта, статистический анализ при обработке полученных материалов, социолингвистическая аналитика. В результате выявлены зоны использования второго языка в виртуальных речевых практиках активного и пассивного типа в разных языковых ситуациях в трех регионах. Установлено, что в целом корреляция между уровнями владения вторым языком и временем вхождения в онлайн-коммуникацию на втором языке определяется в диапазоне от средней до нулевой и значительно варьируется в трех билингвальных группах. Полученные данные в целом согласуются с результатами соотнесенных исследований, проведенных на материале других языковых пар билингов и в других регионах. Вместе с тем обнаруживается своеобразие, обусловленное особенностями языковых ситуаций, в пределах которых формируются исследуемые типы билингвизма. Представленные выводы ограничены выборкой респондентов, основной состав которой – студенты и недавние выпускники гуманитарных факультетов с языковой специализацией. В качестве перспективы исследования рассматривается расширение выборки с привлечением респондентов с другими аспектами социального и языкового опыта.

Ключевые слова: онлайн-коммуникация, офлайн-коммуникация, учебный билингвизм, русско-английский билингвизм, таджикско-русский билингвизм, узбекско-русский билингвизм

Цитирование: Резанова З. И., Владимирова В. Е. Виртуальная коммуникация в речевых практиках учебных билингов. *Виртуальная коммуникация и социальные сети*. 2026. Т. 5. № 2. С. 185–197. (In Eng.) <https://doi.org/10.21603/vcsn-2026-5-2-185-197>

Поступила в редакцию 06.03.2026. Принята после рецензирования 27.03.2026. Принята в печать 30.03.2026.

Introduction

The article presents the analytical results of the interaction of two global trends in the development of communications in the modern society. The first is virtualizing the communication environment in almost all areas of social reality. The second is activating bilingual and multilingual speech practices in both "real" communication, that is, one that is implemented without telecommunications assistants, and virtual (Internet, telephony, radio, etc. under.).

It is difficult to overestimate the impact of these processes on absolutely all spheres of development of modern society – from governmental (websites, channels, pages on social networks and others created by government agencies) to everyday friendly and family communication (various genre forms of communication via social networks, personal correspondence, etc.).

Currently, virtual communication unites almost all discourses and speech genres, distinguished by a functional principle. Simultaneously, virtual communication modifies existing genre and discursive forms of "real communication", at the same time being a medium for the formation of new ones.

Two sociopolitical and economic factors contribute primarily to the pervasive spread of bi- and multilingualism. Firstly, it is the predominance of multiethnic (as a result, multilingual) states, in which there are unbalanced linguistic situations. As a result, the most multifunctional languages of the state – one or more, but not all – are promoted as official state languages. Such a functional distribution of idioms within the state determines the formation of socially, politically, and culturally conditioned bilingualism. In this bilingualism native languages can move into the sphere of the so-called family communication, losing a number of socially significant functions (in the modern Russian Federation, these are Shor-Russian, Tuvan-Russian, Adyghe-Russian, and many other bilingual types). Secondly, globalization contributes to a multiple increase in interethnic contacts. Therefore, it serves a very significant incentive for the most diverse population groups to learn non-native languages implemented in the labor and educational migration.

Virtual communication, which mediates all spheres of modern human life, cannot but influence the formation and development of bilingual types. These types develop in diverse cultural, social, political, and economic environments, which is actively reflected by researchers from different countries. Thus, B. Fracchiolla writes about the global transformations taking place in modern media spaces, about the transition from fundamental

monolingualism to increasing multilingualism in his monographic study "Monica Heller (ed): Bilingualism: A Social Approach (Palgrave Advances in Linguistics)" [Fracchiolla 2008]. The author reflects that historically, the mass media have contributed to the formation of national languages and generated the linguistic ideal of a state in which linguistic homogeneity corresponded to national identity. Modern processes of socio-cultural change create key points for public demonstration of linguistic diversity. Active sociocultural transformations are a natural consequence of globalization: transnational migratory population groups produce migrant communities, which, in turn, create multilingual information flows. Digital technologies play a special role in this process: Internet users engage in linguistic bricolage on their home pages [Ibid.]. The problem is global in nature, and we can assume the existence of various types of bilingualism, their interactions with modes of communication in real and virtual environments in regions with different social, political, and economic circumstances affecting communication among different social groups.

At the same time, a preliminary analysis of the literature showed that this problem is understood differently in modern humanities. Alongside the purely linguistic approach, which focuses on the grammatical systems of interacting languages (see, for example, [Mirzoyeva, Syurmen 2020; Yousif 2025]), the most developed direction – represented by a significant number of publications – is the study of the role and effectiveness of using Internet technologies in learning a foreign language, both in academic settings and beyond. The focus is on the potential of multilingual social media pages, the possibilities for students to use them to improve their second language proficiency, and educational issues proper.

Research on the effects of using multilingual Internet communication in the educational process is empirically descriptive in nature, presenting examples of bilingual practices in the online space that are specific to different countries. At the same time, as a rule, the language pairs under consideration are those in which the target language is English and the first language is the official state language. The research is also characterized by a significant uniformity of methods used. The leading methods are questionnaires to ascertain respondents' subjective assessments of aspects of the second language use, and testing as an objectified method for determining language proficiency levels. For instance, studies of social networks as platforms for multilingual communication

in relation to educational tasks to improve language proficiency conducted in Malaysia, Thailand, Pakistan, Egypt, Sweden, and elsewhere [Androutsopoulos 2006; Khan et al. 2016; Poramathikul et al. 2020; The multilingual Internet... 2007; Zainal, Rahmat 2020] showed a positive impact of virtual communication: social networks spark interest in learning English and help improve its level.

The dissertation research by M.-L. Malerba, conducted in Spain, revealed, on the one hand, the existence of various forms of mutual support among students on social networks and their ability to sustain both the social and the learning trajectory during their interaction. On the other hand, it empirically confirmed a decline in student engagement with communication platforms over time due to internal contradictions within the structure of virtual communities [Malerba 2015].

A study conducted at the University of Kurdistan (Iran) addressed a broader range of issues related to the impact of virtual communication on identity formation. The authors concluded that there is a positive correlation between social and personal identity and the amount of use of virtual social networks. At the same time, a formalized analysis of groups of monolingual and multilingual social network users (an independent t-test for comparing the average values of two independent groups) showed that the mean social identity score in the bilingual group was (74.02), while the mean score in the monolingual group was (85.43). This led the authors to conclude that bilingualism also has a negative effect on social identity [Ahmadi, Pour 2020].

The analysis of the publications indicates that the qualitative and quantitative indicators of virtual bilingual communication in relation to various social practices, including educational ones, are determined primarily by the specifics of linguistic situations in different countries, and this in itself points to the need for empirical research in this problem area.

The aim of the article is to identify the correlation between the time of the beginning of communication in the second language in the Internet environment and the skills of using the second language in the communicative practices of educational bilinguals. To achieve this aim, we consistently solve the following tasks: based on a questionnaire survey (1) to present a social portrait of respondents, including data on the level and field of education, age, and gender; (2) to characterize the linguistic and communicative experience of the respondents, including data on the native and studied languages, the time of second language

acquisition, the distribution of spheres of communication in the native (L1) and acquired / mastered (L2) languages in "real" and virtual communication; (3) to determine the level of proficiency in different skills (listening comprehension, reading, speaking, writing); (4) to test for correlations between the beginning and intense use of the second language in virtual communication and the self-assessed proficiency level in the second language (listening comprehension, reading, speaking, writing).

This aim was achieved in relation to the study of bilingual pairs involving the Russian language.

Methods and materials

The research presented in the article continues the multidimensional study of the types of bilingualism in various language situations involving the Russian language, which are being formed in the regions of Southern Siberia and the post-Soviet countries. The results of the study were presented in the monograph [Rezanova et al. 2024] and a number of articles [Artemenko 2023; Dibrova 2023; 2025b; Rezanova et al. 2018]. The empirical basis of the conducted research consists of materials from the sociolinguistic databases RuTurkSocLing and UzRusSocLing [Artemenko et al. 2023, Dibrova et al. 2023], created by processing the results of a survey of native bilingual speakers in the regions under study. When creating the RuTurkSocLing database, the project authors used two questionnaires: a sociolinguistic questionnaire developed by O. P. Kazakevich at the Institute of Linguistics of the Russian Academy of Sciences [Kazakevich 2006] and aimed at collecting data on the social context of the functioning of low-resource languages of the Russian Federation, and a language experience questionnaire by M. Kaushanskaya, H. K. Blumenfeld, V. Marian [Kaushanskaya et al. 2007], tested in the long-term bilingualism research abroad (the full versions of the questionnaires used are given in the appendices of V. S. Dibrova's PhD thesis [Dibrova 2025b: 235–242]).

Shifting the research focus to areas of the post-Soviet space where the Russian language has a different social status, having moved from a majority to a minority position, necessitated a substantial transformation and integration of the questionnaire items. As a result, new questionnaire variants were developed in the laboratory, also presented in Dibrova's dissertation [Dibrova 2025a: 243–253]. Using the materials from this survey, an analysis was conducted for bilingual speakers' assessments of their bilingual speech practices and the conditions under which they are realized. On this

basis, the types of bilingualism were described, in which the Russian language occupies the position of the second language studied, but which differ in terms of the timing and external circumstances of initial acquisition, as well as in the current functional relationship with the native languages.

The most significant distinction examined is that between early natural (simultaneous or sequential) acquisition of Russian with functional dominance of Russian at the time of the study and late, functional, instructed bilingualism with functional dominance of the native language.

In this paper, we turn to the types of bilingual practices that emerge involving the Russian language in varying sociopolitical conditions, specifically in situations of functional instructed bilingualism with a variable position of Russian in bilingual interaction: (1) Russian as a native language and English as the language being learned; (2) Russian as the language being learned, with Uzbek and Tajik as native languages.

In order to explore the relationship between the uses of native and the learned languages in "real" and virtual communicative practices, the existing questionnaires were redesigned, the section on communication practice options was complicated: respondents were asked to assess the intensity of communication in specific

situations in their native and learned languages, taking into account the type of communication: virtual or "real". Here is an example of a fragment of the questionnaire in Figure 1.

The survey was conducted at Tomsk State University and foreign universities: U. Makhmudov at Urgench State University (Uzbekistan) and a team led by D.M. Iskandarova at the Tajik Russian (Slavic) University (Tajikistan).

The study involved 210 Russian-English, 84 Tajik-Russian, and 70 Uzbek-Russian bilinguals.

Results

Social profile of the respondents

The groups of bilinguals involved in the survey are balanced by age and gender ratios (the predominant number of women is noted in all groups). Socially, the samples of respondents are also homogeneous – these are students or recent graduates of university centers, whose university education systems have introduced a foreign language (English or Russian) as one of the core competencies that form professional competencies. The data are presented in Table 1.

Here are the absolute numerical data and percentages of the distribution according to the levels of complete education of the groups of bilingual speakers involved:

27. Please rate, on a scale from 1 to 7, the level of language influence in different types of communication at present (mark with numbers in the table according to the scale).

1	2	3	4	5	6	7
No influence	Very low degree of influence	Low degree of influence	Moderate degree of influence	High degree of influence	Very high degree of influence	Absolute influence

Type of communication	First / native language		Second language		Third language	
	offline	online	offline	online	offline	online
Communicating with the family						
Communicating with friends						
Communicating with acquaintances (rather than family and friends)						
Communicating while studying / learning (language of instruction)						
Communicating with official structures (administration, hospital, university and others)						
Reading (alongside with reading literature, reading banners, announcements, instructions)						
Watching movies / series						
Listening to music						

Fig. 1. Fragment of a sociolinguistic questionnaire (assessment of communication intensity in specific situations in the bilingual's languages)

Рис. 1. Фрагмент социолингвистической анкеты (оценка активности общения в определенных ситуациях на языках билингва)

- *Russian-English*: secondary – 177 (84.3%), vocational secondary – 4 (1.9%), higher – 29 (13.8%);
- *Uzbek-Russian*: secondary – 27 (38.6%), vocational secondary – 37 (52.9%), higher – 6 (8.6%);
- *Tajik-Russian*: secondary – 55 (65.5%), vocational secondary – 6 (7.1%), higher – 20 (23.8%). There are no data on the education of 3 respondents (3.6%).

The majority of respondents in the three compared types of instructed bilingualism interpreted the sphere of their future or current professional field as related either to working with information or to the humanitarian field (interacting with people). We also provide numerical and percentage data on groups of bilingual speakers:

- *Russian-English*: working with data and information – 88 (41.9%); interaction with humans – 92 (43.8%); artistic work – 15 (7.1%); technology – 10 (4.8%); nature – 5 (2.4%);
- *Tajik-Russian*: work related to interacting with people – 42 (50.0%); data and information – 12 (14.3%); technology – 11 (13.1%); nature and artistic work – 7 each (8.3% each);
- *Uzbek-Russian*: work related to interacting with people – 40 (57.1%); significantly fewer represented fields: artistic work – 11 (15.7%); information and data processing – 10 (14.3%); nature – 8 (11.4%); technology – 1 (1.4%).

Thus, the majority of respondents in all three groups chose professions primarily in the humanities and are currently either receiving higher education or have received it in the recent past (the average age of respondents is from 19 to 24 years).

Respondents' language experience

Further, to refine the portrait of bilinguals, we collected general information about the language experience of the subjects. The participants indicated the most active language at the moment, as well as the age of acquisition for the second language, and self-assessed their language skills in the second language.

Functional distribution of languages. The analysis of the survey data showed a significant difference in the functional distribution of languages. In the *Russian-English bilingual group*, the native Russian language has an absolute functional predominance: it is the most active language among 205 participants at the moment; the second language dominates only among 4 respondents.

In the *Tajik-Russian bilingual group*, for 42 respondents the more active language at present is their first language (Tajik), for 33 respondents it is the second language (Russian), and for another 3 participants a third language is more active.

In the *Uzbek-Russian bilingual group*, dominance of the second language is observed: for the majority of respondents, Russian is currently the more active language (46). For some participants, the first language (15) or a third language (9) dominates.

Acquisition time for the second language

The period of the second language acquisition was assessed regardless of the type of communication based on two language skills – speaking and reading. In the *Russian-English bilingual group*, the majority began speaking the second language in early childhood and early school age (0–11 years: n = 119), with a smaller number during adolescence (12–17 years: n = 74). A similar trend is observed for reading skills, which indicates the early inclusion of the second language in the educational trajectory.

The language experience of the *Tajik-Russian bilingual* sample is characterized by early acquisition of Russian as the second language. The onset of speaking most often occurs at the age of 0–6 years (n = 30) and 7–11 years (n = 27), which makes it possible to qualify a significant part of the respondents as early bilinguals. Learning to read in the second language also begins mostly at early and primary school age (0–6 years old, n = 27; 7–11 years old, n = 40).

The linguistic experience in the field of the second language for *Uzbek-Russian bilinguals* is characterized as later. The majority of respondents started speaking

Tab. 1. Age and gender ratios of the respondents in the study

Табл. 1. Возрастные и гендерные соотношения привлеченных к исследованию респондентов

Indicator	Russian-English		Tajik-Russian		Uzbek-Russian	
	Female	Male	Female	Male	Female	Male
Number of respondents (n, %)	169 (80)	41 (20)	55 (66)	29 (34)	57 (81)	13 (19)
Age (M, SD)	19.80 (4.68)	20.27 (6.22)	23.87 (10.52)	24.14 (9.20)	21.74 (3.85)	23.92 (4.01)
Total number (N)	210		84		70	

Russian at the age of 7–11 years (n = 36), with a smaller number at 12–17 years (n = 18); early childhood acquisition of the second language (0–6 years) was recorded in only 2 participants. A similar pattern is observed for reading: the most frequent is the beginning of reading at the age of 12–17 years (n = 33) and 7–11 years (n = 22), which allows us to classify this group as a late instructed type of bilingualism. The majority of respondents in all three groups studied the second language in classroom settings.

Self-assessed proficiency in the second language. The data obtained on the onset of the second language acquisition were correlated with self-assessments of proficiency in various second language skills at the time of the study (Tab. 2).

As you can see, the groups of respondents differ in their self-assessment of the second language proficiency. The highest scores are observed among Russian-English bilinguals: mean values for all types of language activities exceeded 4.7 points, with the highest scores recorded for reading skills (M = 5.28; SD = 1.34). The self-assessments of Uzbek-Russian bilinguals occupy an intermediate position (M = 4.24–4.71), whereas Tajik-Russian bilinguals gave the lowest ratings of proficiency in all forms of language activities (M = 3.36–3.73).

At the same time, respondents in all groups rate reading and listening comprehension highest, while speaking and especially writing receive lower ratings. This corresponds to the profile of the second language acquisition, in which receptive competencies develop earlier and prove to be more stable.

Having analyzed the features of language experience in the second language and the self-assessed proficiency ratings, we proceeded to address the main research questions concerning the relationship between the first and second languages in real and virtual communication, and the existence of correlations between patterns of language experience in these domains.

In addressing these questions, we relied on respondents' self-reports of the age at which they began virtual communication in their native and second languages, as well as their self-assessments of the intensity of using their native and second languages in different communicative situations, both in real and virtual communication.

Table 3 presents the distribution of the participant sample by periods of onset of virtual communication in their native and second languages. The rows of the table indicate age periods, as well as the option *has not started Internet communication* for cases where

Tab. 2. Average scores of language skills in the three bilingual groups

Табл. 2. Средние оценки языковых навыков в трех группах билингвов на втором языке

Skill	Russian-English	Tajik-Russian	Uzbek-Russian
Speaking	4.70 (1.37)	3.50 (1.46)	4.36 (1.49)
Writing	4.82 (1.42)	3.36 (1.56)	4.24 (1.41)
Reading	5.28 (1.34)	3.71 (1.40)	4.69 (1.27)
Listening comprehension	4.95 (1.40)	3.73 (1.47)	4.71 (1.25)

Note: Table 2 shows the average values of grades and standard deviations (in parentheses); respondents rated skills on a scale from 1 to 7.

Tab. 3. The periods of the beginning of virtual communication for bilinguals in the and second languages

Табл. 3. Периоды начала онлайн-коммуникации билингвов на первом и втором языках

The age of the beginning	Russian-English		Tajik-Russian		Uzbek-Russian	
	L1	L2	L1	L2	L1	L2
0–6 years	39 (18.6)	3 (1.4)	–	–	12 (17.1)	1 (1.4)
7–11 years	94 (44.8)	35 (16.7)	16 (19.0)	4 (4.8)	19 (27.1)	9 (12.9)
12–17 years	57 (27.1)	90 (42.9)	17 (20.2)	19 (22.6)	20 (28.6)	16 (22.9)
18–25 years	18 (8.6)	53 (25.2)	23 (27.4)	30 (35.7)	9 (12.9)	23 (32.9)
After 25	–	7 (3.3)	13 (15.5)	19 (22.6)	1 (1.4)	12 (17.1)
I haven't started Internet communication	–	19 (9.0)	–	–	2 (2.9)	2 (2.9)

Note: Cells show the total number of respondents who started Internet communication in a given age period, with percentages of the total number of respondents in that bilingual group given in parentheses.

virtual communication in that language was absent from the respondent's linguistic experience.

As can be seen, Internet communication in the second language begins later than in the first language across all groups of bilinguals, but the relative timing differs. For Russian-English bilinguals, the peak start of Internet communication in their native language occurs at the age of 7–11 years, while for the second language it occurs at 12–17 years. For Tajik-Russian and Uzbek-Russian bilinguals, the beginning of Internet communication in the second language most often occurs at 18–25 years.

Based on the data presented, we subsequently identified, within the previously formed bilingual groups, subgroups of respondents contrasted by age of entry into virtual communication – early and late entry (from 18 years onward). This division is aimed at identifying the presence or absence of a correlation between the age of the beginning of Internet communication in a second language and assessments of language skills. The main characteristics of the obtained groups are presented in Table 4.

Russian-English bilinguals with early entry into Internet communication in the second language are the youngest group (M = 18.78) with low variability (SD = 3.32). The subgroup of bilinguals who started

virtual communication after the age of 18 is older (M = 21.64) and more heterogeneous in age (SD = 6.54).

The age of Uzbek-Russian bilinguals with early entry into Internet communication shows a low variance (SD = 1.77); this is an age-homogeneous student group. The subgroup of bilinguals with late entry is older (M = 23) and also variable in this respect (SD = 4.68).

Tajik-Russian bilinguals with early entry into Internet communication are the oldest group (M = 26.87), with very high variability (SD = 14.60), and are also the smallest in number (n = 23). The subgroup with late entry (M = 23.37) is characterized by moderate variability (SD = 8.27).

Next, the mean self-assessed language skills scores of respondents in the contrasted subgroups were calculated (self-assessments on a scale from 1 to 7). The results are presented in Table 5.

In the group of Russian-English bilinguals, the mean scores range from 3.6 to 4.3, indicating a moderate level of the second language proficiency. Reading also remains the most developed skill, and the differences in self-assessments between the groups with early and late entry into virtual communication are minimal. A marked within-group variability is observed: the standard deviations are relatively high (1.3–1.6).

Tab. 4. Subgroups with early and late entry into virtual communication in the second language of the three bilingual groups
Табл. 4. Подгруппы с ранним и поздним вхождением в онлайн-коммуникацию на втором языке трех групп билингвов

Group	Subgroup	n	M (age)	SD
Russian-English	early entry into virtual communication	128	18.78	3.32
	late entry into virtual communication	81	21.64	6.54
Uzbek-Russian	early entry into virtual communication	26	20.42	1.77
	late entry into virtual communication	37	23.00	4.68
Tajik-Russian	early entry into virtual communication	23	26.87	14.60
	late entry into virtual communication	49	23.37	8.27

Tab. 5. Average self-assessed language skills scores in subgroups of respondents with early and late entry into Internet communication in the second language

Табл. 5. Средние оценки языковых навыков в подгруппах респондентов с ранним и поздним вхождением в онлайн-коммуникацию на втором языке

Skill	Russian-English		Uzbek-Russian		Tajik-Russian	
	Early entry	Late entry	Early entry	Late entry	Early entry	Late entry
Speaking	3.75 (1.30)	3.62 (1.48)	4.62 (1.39)	4.30 (1.58)	6.09 (0.97)	5.12 (1.38)
Writing	3.80 (1.34)	3.84 (1.55)	4.54 (1.42)	4.08 (1.44)	6.05 (1.17)	4.90 (1.39)
Reading	4.23 (1.20)	4.33 (1.56)	4.65 (1.35)	4.68 (1.29)	6.14 (0.99)	5.37 (1.32)
Listening Comprehension	3.98 (1.26)	3.90 (1.60)	4.73 (1.37)	4.73 (1.22)	6.00 (1.07)	5.55 (1.42)

Note: cells show mean values, with standard deviations in parentheses.

Uzbek-Russian bilinguals give higher scores (4.1–4.7). The strongest skills are also receptive – reading and listening comprehension. The bilingual subgroup with early entry into virtual communication in the second language slightly outperforms the group with late entry in productive skills, but this difference does not reach statistical significance.

Tajik-Russian bilinguals gave the highest scores among all groups: the subgroup of bilinguals with early entry into virtual communication in the second language demonstrates almost maximum values (≈ 6), with high group uniformity (low values of standard deviations, $SD < 1.2$). The subgroup with a late entry into virtual communication scores slightly lower, but still higher than the rest of the groups. A statistically significant difference between the subgroups was also noted in the assessment of writing skills ($p = 0.03$, Kruskal–Wallis test with Bonferroni correction) – the subgroup with early entry into Internet communication in the second language rates writing skills significantly higher than the subgroup that started virtual communication at a later age.

When collecting data on the use of native and second languages in different communicative situations, both in real and virtual communication, respondents were

asked to rate the intensity of language use on a scale from 1 to 7. At the same time, the intensity of communication could be rated equally; for example, a respondent could indicate that they actively communicate with their family in both languages both in virtual and real communication, that is, a high score for one form of communication does not exclude a high score for the other form.

Table 6 presents the average scores for language use intensity in various communicative situations and types of communication by group.

As can be seen, according to the respondents' self-assessments, for Russian-English bilinguals, communication time in the native language dominates in both offline and online contexts. However, when comparing communication time in the first and second languages in the online environment, a predominance of the second language emerges: the native Russian language dominates in all institutional communications; in the online environment, English is used significantly more often in online media (music, films). Tajik-Russian bilinguals show an almost symmetrical bilingual model: high scores for both languages; particularly intensive use of the second language (Russian) is observed in educational and official communication. Uzbek-Russian

Tab. 6. Average scores for language use intensity in various communicative situations and types of communication
Табл. 6. Средние оценки активности использования первого и второго языка в различных коммуникативных ситуациях и типах коммуникации

Type of communication	Russian-English		Tajik-Russian		Uzbek-Russian	
	L1	L2	L1	L2	L1	L2
Listening to music online	5.10 (1.92)	5.05 (1.81)	6.23 (2.00)	6.31 (1.76)	4.21 (1.81)	5.31 (1.66)
Listening to music offline	5.67 (1.88)	3.11 (2.13)	6.23 (2.10)	5.30 (1.63)	3.71 (1.89)	4.70 (1.90)
Watching movies online	5.74 (1.69)	4.10 (2.07)	6.05 (2.24)	5.43 (1.53)	4.01 (2.05)	5.39 (1.68)
Watching movies offline	6.45 (1.42)	2.39 (1.93)	6.05 (2.25)	3.65 (1.20)	3.69 (2.05)	4.79 (1.94)
Reading online	5.97 (1.39)	4.12 (1.90)	6.07 (2.24)	6.14 (1.88)	3.94 (1.90)	5.31 (1.64)
Reading offline	5.30 (1.17)	3.56 (1.75)	5.88 (2.22)	5.35 (1.54)	4.19 (1.90)	5.31 (1.64)
Communicating while studying / learning online	6.19 (1.38)	3.79 (2.05)	5.98 (2.42)	6.36 (1.77)	3.94 (1.82)	5.44 (1.59)
Communicating while studying / learning offline	5.58 (0.97)	3.60 (1.93)	5.81 (2.27)	6.06 (1.71)	4.16 (2.00)	4.61 (1.57)
Communicating with the official structures online	6.83 (1.11)	1.75 (1.44)	6.01 (2.26)	6.36 (1.89)	3.83 (1.81)	4.73 (1.83)
Communicating with the official structures offline	6.90 (1.05)	1.70 (1.41)	5.75 (2.14)	6.21 (1.69)	4.17 (1.78)	4.00 (1.62)
Communicating with the family online	5.68 (0.92)	2.56 (1.55)	6.00 (1.88)	6.25 (1.95)	3.96 (1.66)	4.89 (1.65)
Communicating with the family offline	3.96 (0.64)	2.17 (1.45)	5.48 (1.47)	6.14 (1.93)	4.77 (1.83)	4.87 (1.68)

Note: Cells show mean values, with standard deviations in parentheses.

bilinguals rate communication intensity lower in almost all spheres of communication in the first and second languages compared to other groups, while giving higher scores for the intensity of the second language use in online communication.

Russian-English and Uzbek-Russian bilinguals score higher relative to online communication by comparing the type of language (L1 or L2) and the type of communication. It shows that receptive passive culturally marked forms of communication (watching movies and listening to music) in the second language receive higher scores relative to online communication. For Tajik-Russian bilinguals, these forms of communication are more frequent for both online and offline communication.

The fact that our respondents were predominantly students in the humanities with professionalization in the field of the second language led to higher ratings of the second language communication during training, in both passive and active forms of communication.

We also tested shifts in ratings of the language use intensity in different types of online and offline communication depending on the age of entry into virtual communication, combining communication types by receptivity/productivity. The results are presented in Table 7.

In the group of Russian-English bilinguals, the dominance of the native language over the second language is observed in all conditions. A particularly large gap is seen in productive types of communication. In the subgroup of bilinguals with late entry, the ratings of native Russian language use intensity are slightly higher than for early entrants. In real communication

situations, the second language (English) is used much less frequently than in online communication (3.30/2.42 and 3.61/2.85 for receptive communicative situations).

In the group of Uzbek-Russian bilinguals, the opposite relationship is observed: the intensity of the second language use is higher than that of the native language. The gap is especially noticeable in receptive communicative situations. Differences in language use intensity between online and offline communication are minimal. Likewise, no differences are observed between subgroups by the age of entry into virtual communication in the second language.

Tajik-Russian bilinguals gave high ratings for the intensity of both languages. The ratings of intensity are almost identical across languages; however, in the subgroup with late entry into virtual communication in the second language, higher ratings of the second language (Russian) use intensity are observed in all types of communication. The differences in language use intensity between online and offline communication are also minimal.

Next, a correlation analysis was performed using Spearman's rank correlation coefficient; the results are presented in Figure 2.

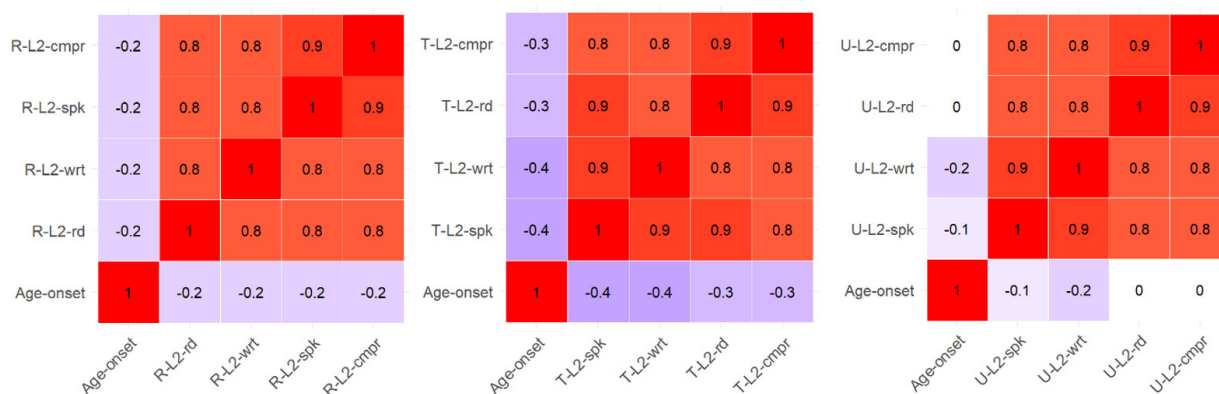
The analysis revealed a high level of correlations between different language skills (the range of positive correlations from 0.8 to 0.9) in all three groups of respondents, and a very low level of negative correlations (from 0 to -0.4): the younger the age of entry into Internet communication, the higher the self-assessed proficiency in different forms of the second language communication.

Tab. 7. Average ratings of the language use intensity in different communicative situations (receptive and productive) and types of communication (online and offline)

Табл. 7. Средние оценки активности использования языка в различных коммуникативных ситуациях (рецептивных и продуктивных) и типах коммуникации (онлайн и офлайн)

Indicator	Russian-English				Uzbek-Russian				Tajik-Russian			
	Early entry		Late entry		Early entry		Late entry		Early entry		Late entry	
	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2
rec (on)	4.38 (1.50)	3.30 (1.55)	4.93 (1.48)	3.61 (1.99)	3.13 (1.80)	4.30 (1.72)	2.86 (1.49)	4.37 (1.36)	5.86 (1.64)	5.90 (1.18)	4.59 (1.74)	5.25 (1.31)
rec (of)	4.96 (1.23)	2.42 (1.50)	5.42 (1.12)	2.85 (1.89)	3.03 (1.82)	4.13 (1.70)	2.64 (1.59)	4.14 (1.31)	6.11 (1.49)	6.05 (0.96)	4.44 (1.74)	5.54 (1.20)
prod (on)	5.39 (0.89)	1.76 (1.37)	5.83 (0.84)	1.60 (1.36)	3.15 (1.31)	4.28 (1.43)	3.21 (1.33)	4.03 (1.22)	5.94 (1.40)	5.87 (0.99)	4.77 (1.74)	5.30 (1.28)
prod (of)	5.68 (0.68)	1.46 (1.38)	6.00 (0.77)	1.52 (1.31)	3.38 (1.41)	4.21 (1.44)	3.43 (1.32)	4.32 (1.08)	6.13 (1.37)	5.90 (1.11)	5.22 (1.52)	5.39 (1.26)

Note: rec – receptive type of communication; prod – productive type of communication; on – online; of – offline; cells show mean values, with standard deviations in parentheses.



Note: R – Russian-English bilinguals; T – Tajik-Russian bilinguals; U – Uzbek-Russian bilinguals; spk – speaking skill in the second language; wrt – writing; rd – reading; cmpr – listening comprehension; age-onset – age of onset of second language acquisition.

Fig. 2. Correlations between self-assessed language skills and age of entry into Internet communication in the second language

Рис. 2. Корреляции между оценками уровня владения коммуникативными навыками и временем вхождения в онлайн-коммуникацию на втором языке

Discussion

Thus, we traced the interaction of types of communicative practices for bilingual students, distinguished by the forms of communication: (1) online vs. offline, (2) in the first vs. the second languages in bilingual pairs contrasted by the position of Russian (native language, majority, dominant in the language situation vs. second, acquired, minority).

The fact that the study focused on bilingual students, most (but not all) of whom reside in the country of their native language, predetermined the dominance of the native language in most communicative situations, both in "real" and virtual communication.

General tendencies include the increased importance of Internet communication in passive culturally marked communicative practices, as well as the significant role of virtual communication in the educational system, which holds true for writing, speaking, and reading practices.

At the same time, the group of Russian-English bilingual students is contrasted with groups in which Russian is the second language, with an earlier onset of the second language acquisition and an earlier entry into virtual communication systems in the second language.

An analysis of the relationship between the age of entry into virtual communication and respondents' self-assessed proficiency in different forms of the second language communication showed, overall, low correlations (in the Tajik-Russian bilingual group: from -0.3 to -0.4), very low correlations (-0.2 in the Russian-English

bilingual group), or a combination of very low correlations and their absence in the Uzbek-Russian bilingual group (from -0.2 to 0).

A differentiated analysis by form of communication (active vs. passive, written vs. oral) revealed, as a tendency, higher self-assessed proficiency levels given by respondents who reported an earlier entry into Internet communication in the second language. However, this trend is not absolute. We also noted that statistical significance of the contrast is achieved only in the assessment of writing skills ($p = 0.03$) in the Tajik-Russian bilingual group.

Conclusion

In general, the analysis of correlated offline and online communications in the first and second languages allows us to classify the examined types of instructed bilingualism into three types: asymmetric with a dominant native language – Russian-English bilinguals; asymmetric with a dominant second language – Uzbek-Russian bilinguals; and the most balanced bilingualism – Tajik-Russian bilinguals.

The data obtained generally agree with the results of the correlated studies conducted on the material of other bilingual language pairs in other regions. Together, the authors revealed the uniqueness of the types of established correlations and their strengths in three variants of bilingualism, implemented in variable language situations involving the Russian language, functioning as a majority or minority language.

Limitation of the study. The findings presented are limited by the sample of respondents, the main composition of which consists of students and recent graduates of humanities faculties with a language specialization. We believe that expanding the sample with the targeted inclusion of respondents differing in other aspects of social and linguistic experience will allow us to provide a more multidimensional picture of the interaction of two tendencies in the system of modern communications: online and offline communication in the first and second languages.

Conflict of interests: The authors declared no potential conflict of interests regarding the research, authorship, and / or publication of this article.

Конфликт интересов: Авторы заявили об отсутствии потенциальных конфликтов интересов в отношении исследования, авторства и / или публикации данной статьи.

Contribution: All the authors contributed equally to the study and bear equal responsibility for the information published in this article.

Критерии авторства: Авторы в равной степени участвовали в подготовке и написании статьи.

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