# Trilingual education in Kazakhstani Higher Education: from the theory to the empirical research

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#### Introduction

It is important to pay attention first to the implementation and integration process of educational reform in a specific education system. Kazakhstan is now witnessing a new educational policy practice in higher education institutions which was initiated by the first president of the country. The importance of the 'Trinity of Languages' program lies in three principles where each language has its function: Kazakh language as a native, Russian as an official and English as the language for successful integration into the global economy (Aubakirova et al. 2019a).

While putting into practice any educational reform, much effort is put on the shoulders of educational agents such as teaching staff. To ensure success of the Trinity of languages program, policymakers and educational institution leaders should consider how prepared universities and teachers are, in particular the will, motivation and interests of the latter (Mclaughlin 1990).

This study explores multilingual educational practice in Kazakhstani higher education. Its main focus is on the role of teachers and their ways of preparedness for the multilingual program and determination of challenges they encounter.

### 1. The background of the research: The 'Trinity of Languages' Program

First, it is important to conceptualize the notion of multilingual education related to this study. In the framework of this research study, we consider multilingual education to be: "Any school program in which more than one language is used in the curriculum to teach non-language academic subject matter or in which the language of schooling does not match the language of the home or community. The reasons for incorporating the languages, the specific languages chosen, the structure of the program, and the relation between the school languages and the community, vary widely and influence educational outcomes..." (Bialystok, 2016: 666–667).

Multilingualism and multilingual education are becoming one of the most important educational issues in the Kazakhstani educational system (Aubakirova–Mandel 2018). The Trinity of Languages program was first introduced in 2004 by the head of the nation. Along with this, the next step of implementing trilingual education was proposed in 2007 in the message of the President 'New Kazakhstan in a new world'. This involved the attraction of teaching staff from abroad and so the gradual implementation of trilingual education started (Nazarbayev 2007). There have been several important state programs for the implementation of multilingual education development including for instance the State Program 2011–2020. This program is divided into three important stages that define actions for putting the educational innovation into practice (Aubakirova et al. 2019a).

Another program is the implementation of the roadmap for the development of trilingual education for 2015–2020. This aimed to update the curricula content at all levels of education and had four focuses: ensure the continuity of trilingual education in the context of a single

educational environment; improve the training and retraining of teaching staff for the effective implementation of trilingual education; ensure effective research in the field of trilingual education in Kazakhstan; popularize the project 'Trinity of Languages' (Zubko 2017).

The roadmap provides 7 strategic directions (Zubko 2017):

- Improving the regulatory and legal framework for trilingual education;
- Research activities on the study of problems of trilingual education;
- Methodological and educational support of trilingual education;
- Training and professional development;
- Institutional support for trilingual education;
- Information support of trilingual education;
- Financing of trilingual education.

#### 2. Multilingual education in Kazakhstani higher education institutions

Kazakhstan is focusing on the realization of the higher education system as well as modernizing it. Therefore, the government launched The State Program for Education Development in the Republic of Kazakhstan 2011–2020 (SPED) the goal of which is to 'increase competitiveness of education and development of [Kazakhstan's] human capital through ensuring access to quality education for sustainable economic growth'. SPED details the measures for the provision of the educational reforms regarding the structure, content, technologies, management, financing, and other features (Aubakirova et al. 2019b).

There are one hundred and twenty-five higher education institutions in Kazakhstan. fifty-four of these higher education institutions are private and the other sixteen are corporatized, one is international, thirty-one non-civil, nine national and one is autonomous (Nazarbayev University) (*Higher education in Kazakhstan*) (based on "Ministry of Education and Science of the RK" n.d.).

Table 1 Higher Education Institutions in Kazakhstan

Types of HEIs	National	International	State- owned	Corporatized	Private	Non- civil	Autonomous educational organization
HEI numbers (125)	9	1	31	16	54	13	1
Multilingual education	6	1	26	7	2	-	-

Source: own compilation based on "Ministry of Education and Science of the RK" n.d.

In accordance with Kazakhstani scholars (Sagyndykova et al. 2017), the development of multilingual education is expanding annually. In terms of the given statistics in the 2012–2013 academic year, thirty-two higher education institutions established specific departments to foster trilingual education where English language is used as a language of instruction. In the 2015–2016 academic year, the number of multilingual departments expanded to forty-two out of 125 higher education institutions. Six of them were national HEIs, twenty-six were state HEIs, one was an international HEI, seven were JSC (Joint Stock Company) HEIs and two were private HEIs (Sagyndykova et al. 2017).

It was estimated then that 16121 students studied at bachelor's degree level, 1662 at postgraduate level and 223 studied in graduate education (Sagyndykova et al. 2017). The teaching staff in multilingual education consisted of 2121 teachers who conducted lessons in English (Sagyndykova et al. 2017). In 2012 training in three languages began in seventeen universities. Teacher preparation is conducted in English as a medium of instruction in

biology, chemistry, physics, and ICT (Information and Communication Technologies). Since 2016 there has been a transformation to the model of multilingual education, a model termed '50:20:30' which means 50% of subjects are conducted in the first language, 20% in the second language and 30% in the third one (Irsaliyev et al. 2017: 139).

There are two platforms for disseminating multilingual education where it is piloted and spread to the mainstream universities: Buketov Karaganda State University (KarSU) and Nazarbayev University (NU). KarSU is regraded a center for training teachers providing them with both English courses and teacher training in appropriate and specific teaching methodology. NU disseminates and conducts research in the field of multilingual education and even established a multilingual education program dimension in the graduate school of education.

There are international and national centers dedicated to the teachers' professional development such as the 'Bolashak international program' and National Professional Development Center, the 'ORLEU' center. It was launched by the first president of the Republic of Kazakhstan (RK), N. Nazarbayev, and was established in 1993. This program is fully financed by the government, and it gives an opportunity for alumni, teachers and educators to study or do an internship abroad in the leading universities of the world. This program aims to develop human capital for the country's development. A number of applicants have completed this 'Bolashak' scholarship which benefits the participant's career. One of the key priorities of the Bolashak program is that it provides the nation with trained and highly qualified professionals and experts in a specific area who can then disseminate insights and contributions to benefit the nation's social and economic development. Bolashak alumni are the key drivers of modernization and improvement for the knowledge-based society and play a key role in decision making on fundamental issues (Nessipbayeva 2014).

Another incentivizing pillar is governmental institutions for teacher's professional development the so-called National Professional Development Center (NPDC), "Orleu" which is dedicated to the improvement of knowledge and skills of teachers in higher education and schools. This NPDC "Orleu" is widely spread in all the regions of Kazakhstan providing pedagogical staff of all educational sectors with a high quality of education.

#### 3. Scope and method of the research

The focus of this study is devoted to the multilingual education development in Kazakhstani higher education institutions for the purpose of enrichment in terms of theory and practice. The research seeks to explore teacher preparation as well as challenges they encounter. It also investigates the typical teacher clusters determined in this program. The study addresses these questions.

- How are teachers prepared to participate in the multilingual education program?
- What challenges do the teachers encounter while working in a multilingual program?
- What kind of typical teacher clusters can be identified in multilingual education? This study uses a qualitative research method (Creswell–Creswell 2014). This research uses the following research instrument: semi-structured and open-ended, face-to-face interviews to explore the participants' learning practices. Interviews were implemented as the main tool for conducting this research to elicit rich data about the learning process of teachers in multilingual education. In addition, interviews involve data accumulation via direct verbal interaction among individuals (Cohen 2000).

#### 3.1. Target groups and sample size

To reach the goal this study recruited university teachers (n=27), only those who are engaged in teaching in multilingual groups, and used a snowballing method of sampling (Coe et al. 2017). The two universities used for data collection, are situated in North Kazakhstan and train professionals in different scientific disciplines. Both universities launch and develop multilingual education, both universities joined the program in the 2017–2018 academic year.

All the interviews were recorded and transcribed by the researcher. In the process of data processing the collected data was analyzed using Atlas.ti software. All the interviews were conducted according to ethical considerations and allowed for the anonymity and confidentiality of the participants.

#### 4. Findings

The presentation of research results consists in determining the following: how teachers are prepared to participate in multilingual programs; the challenges they face in the frame of multilingual program; a typology of teachers' learning patterns.

### 4.1. How teachers are prepared

The preparation of the faculty members participating in the multilingual education program at Kazakhstani universities is done by both the teachers themselves and by higher education institutions.

Table 2 Main ways of teachers' preparation for multilingual program

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BY SELVES	BY EDUCATIONAL INSTITUTION			
Involvement in discussions	Providing workshops, seminars			
Use of three languages in the class	Participation in conferences			
Preparing teaching materials from different	Participation in English courses			
sources				
Boosting communicative skills	Inter-institutional training attendance			
Use of their research in the class	Directing to "Orleu" courses			

Source: own compilation based on the interview results 2021.

The most frequently mentioned activities they are engaged in are depicted in the table above. For instance, most of the faculty members emphasized the involvement in discussions with colleagues. "According to work, we have some discussions when we have some problems in teaching or if I have some new discipline which I do not know how to teach. Then of course I ask for help. A lot of discussions we have, maybe but approximately ten times a day let's say. We discuss during the breaks, coffee breaks" (INT 02). Another interviewer stresses the discussion related to the choice of books, "We discuss the choice of the books with colleagues for the students as we have different groups...".

#### 4.2. Main challenges for teaching staff

Before implementing any educational policy in practice, it is important to avoid any possible challenges that may occur. Since the multilingual education program is at an early stage of development in the context of higher education institutions, the teaching staff encounters several obstacles.

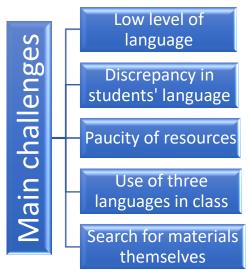


Figure 1 Main challenges teachers encounter Source: own compilation based on the interview results 2021.

Figure 1 depicts several challenges that the teaching staff encounter while working in a multilingual program. Some of the participants described their low level of foreign language proficiency, 'My level of English was low...' and such a weakness in foreign language proficiency brings challenges. For instance, they emphasize that 'My knowledge of English is not so good and my language barrier..., I am afraid to make a mistake in front of students during the class' (INT-014).

One of the fundamental problems facing teaching staff is the paucity of teaching and methodological resources and aids. Faculty members highlight that: 'In physics we have formulas and terminology and definitions, so we provide the students in English with such resources. We published a dictionary with terminology on physics that are frequently used in our lessons in three languages Kazakh, Russian, English. This dictionary contains not only terminology but definitions and formulas as well in three languages. In addition, we also provide students with electronic dictionaries that they use' (INT-07).

Teachers attempt to find the needed materials and organize it themselves to fit the educational program. As the teacher above states, they even create a terminology dictionary in three languages and publish it on their own to use in class.

#### 4.3. Typology of teachers' learning patterns

To explore collected data, the participants of this research are typified according to their types of learning in terms of skills and competency-based features (Aubakirova 2021).

Table 3 Typology of clusters and important frequent codes

CLUSTERS	CODES		
Active and efficient	Collaboration with colleagues (IL-056), Seminars for sharing experience in multilingual setting (IL- 018),		
collaborators	Writing research articles in collaboration (IL-037), Participation in conference (NL-012), Mutual support with colleagues (IL-020).		
Competitive lifelong learners	Implementation of the gained knowledge (IL-31); Developing skills and competence (IL-010); Participating in trainings and seminars (NL-010); Finding additional information on science subjects (IL-012); Participation in English speaking clubs and activities (IL-049).		
Challenge confronters	Teacher overload (IL-026); Lack of possibility to use English language in everyday life (IL-09); Lack of time (IL-027); Facing difficulties in understanding the exact theme (IL-054); Encountering challenges (IL-052),		
Passive job-performers	Less motivated (NL-015); Dissatisfaction with teaching resource provision (IL-015); Lack of specific teaching materials (IL-58); Different level of language proficiency (IL-048).		

Source: own compilation based on the interview results 2021.

#### 4.3.1. Active and efficient collaborators

As can be observed from the quotations, faculty members are frequently involved in collaborative discussions with colleagues. Moreover, there are some departments which create their own way of collaboration through the lens of the so-called Links. This happens with 70 % of the members of the 'Active and efficient collaborators' cluster.

'We discuss the choice of the books with colleagues for the students as we have different groups, different educational programs. Some teachers teach for biology students, some teachers teach for mathematics, so we can discuss the choice of the books and the choice of the examination and the choice of exercises and kinds of work they are planning to organize during the classes' (INT 05).

Teachers underline they communicate, 'Everyday... everyday... Because my colleagues they have the same difficulties... because we have links. For example, I am working with first year students from mathematics and my colleagues, they work with first year students from physics faculty, and we must communicate everyday discussing some tasks and discussing some activities. And it means that we are just boiling in our own pot' (INT 06).

From these statements, it is obvious how closely teachers collaborate. Discussions that take place between them contribute to the development of their on-the-job decision-making and problem-solving abilities. Collaboration is regarded as an impetus which assists teachers to be more committed to their professional teaching issues.

#### 4.3.2. Competitive lifelong learners

This category of teachers is characterized by a participation in research projects, regular seminar attendance, network building as well as implementation of specific teaching methods, specified by these teachers themselves.

Strong involvement in research projects of the faculty members can also be observed in this cluster. Members both conduct research and participate in conferences to share their research findings. Teachers also highlighted the importance of networking, as indicated by this teacher's description of how he networked to promote his research further in another university abroad. 'This year I have the opportunity to study in Belgium for three months. Thanks to my participation in these past conferences, I have found new connections through those contacts that are intriguing to my subject matter. So, their topic is close to my own, and they want to connect their topic with my research. Because in their research my subject has not yet been studied. It is funded by the same university. Only they have won three-four-year projects and they are collecting a team for that project. My main goal is to work with them and publish in the top-rated journals' (INT 017).

Teachers emphasize the importance of networking with colleagues from foreign universities as well as network building capacities. Networking mainly results from conference participation.

#### 4.3.3. Challenge confronter

This category of academics discussed issues of foreign language learning indicating the frequency of language practice, language barriers. This cluster includes those find challenging almost everything in their way. For example, concerning English language practice, the members of this cluster said: '...as we are learning something, we have tasks we have homework and just spend time on preparing for lessons, I mostly do not practice English and help my children. I use English only in the lessons' (INT 08).

Teachers complain about the paucity of time for practice stating that: 'It's difficult to answer because as you know English is not well-known in our small town. Even between us, teachers, in the department we don't speak to each other in English, and I understand the reason for it, because every teacher has a big teaching load and imagine that talking English for a whole working hour. After the workday we need maybe just to rest and talk in those language, which is everyday language, in Russian for example' (INT 012).

Participants that lack of opportunities for language development, relate this to being overloaded: "...well, good question because when you are overloaded, especially these days with this trinity program I don't have pretty much free time for taking part in any workshops and seminars" (INT 012).

Thus, these comments highlight the huge workload, being overloaded at work and being so tired that they do not exert any efforts and endeavors to practise language or even to search for the opportunities to practise it outside classroom. A heavy workload does not allow them to do any other activities. Preparation for the classes takes much of their time. However, they noted that they attempt to practise with their children, but such language practice cannot be considered as relevant to the activity of teaching academic subjects through the medium of English.

#### 4.3.4. Passive job-performers

Passive job-performers can be characterized by teachers' passiveness in practising the foreign language as well as low participation in learning events in and outside of educational institutions. Teachers who belong to this category state for instance: 'Unfortunately, I can't use it anyway because for example, when I leave the university, I forget that I am a teacher of the English language because there is no one to communicate with. But this year we had some

volunteers she is from the USA that's why sometimes after classes we have to communicate' (INT 023). This participant emphasizes the lack of opportunities to practice a foreign language outside the classroom and she refers to the absence of an English-speaking community. However, she describes how the university invited volunteer teachers to teach but from the expression 'have to communicate' she expresses an unwillingness to learn from that situation. In short, teachers did not appear to master the foreign language skills and competences.

#### Conclusion

To recap, it is necessary to consider different ways of teachers' preparation towards the policy of multilingual education beforehand in order to avoid challenges that may be brought during the procedure. Teachers are prepared in two ways: teachers themselves in that teachers endeavor to be involved in different learning and professional events; by academic units, universities also provide with necessary professional development activities<sup>1</sup>. Teachers engaged in a multilingual education program were sent to those universities which serve as a platform for disseminating multilingual programs. Faculty members were trained there to boost their foreign language proficiency and practise the teaching of their science subjects in English. Bolashak program and Orleu center are also influential learning platforms where teachers foster their professional development in related and necessary fields.

Challenges to implementation of any innovative policy can hinder the success of that policy. The participants identified the following challenges: low level of foreign language proficiency; paucity of teaching resources; use of three languages in the classroom; searching and preparing teaching materials teachers themselves<sup>2</sup>.

Regarding the learning patterns of the teacher participants, the following could be identified: active and efficient collaborators; competitive lifelong learners; challenge confronters; passive job-performers. Each of these categories has specific elements describing each cluster and their learning activities and process<sup>3</sup>.

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<sup>&</sup>lt;sup>1</sup> For more detail, See the Table 2

<sup>&</sup>lt;sup>2</sup> See Figure 1

<sup>&</sup>lt;sup>3</sup> For more detail, See Table 3

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