

Trilingual Education in Kazakhstan: Motivation and Attitude of Science Teachers in Learning English

Saule Polatova, PhD student

Alima Nurlybekova, D.Ed, Professor

M.Auezov South Kazakhstan State University, Kazakhstan

Dildar Kistaubaeva,

Cand.Sc. Education, Miras University, Kazakhstan

Doi:10.19044/esj.2019.v15n25p168 [URL:http://dx.doi.org/10.19044/esj.2019.v15n25p168](http://dx.doi.org/10.19044/esj.2019.v15n25p168)

Abstract

The purpose of the article is to investigate the integrative and instrumental motivation and attitude of school science teachers involved in the process of learning English. A survey was conducted with school science teachers who were undertaking training at the Shymkent branch of Orleu, the national center for the in service training of teachers in South Kazakhstan. From the "State Program for Education Development in the Republic of Kazakhstan for 2011- 2020", it became mandatory for school science teachers to teach through the medium of English, according to the national policy on trilingual education (Ministry of Education and Science of the Republic of Kazakhstan, 2010, p-2). The study involved 117 school science teachers (teaching Chemistry, Biology, Physics, and Computer Science): 18 males and 99 females from aged between twenty and sixty years old. Questionnaire data was collected through twenty items adapted from a five-point Likert scale. The statistical results from the survey data on the measurement of instrumental and integrated motivation were measured by SPSS and Excel. The results showed that school science teachers had a high level of motivation, both integrative and instrumental, for learning English; but instrumental motivation was slightly higher than integrative motivation. Data analyses on the main difficulties in learning English show that there is no language environment where teachers and indeed the wider population can develop their language skills.

Keywords: Motivation, Integrative, Instrumental, Teachers, English language

Introduction

At the present time, knowledge of a foreign language within Kazakhstan is determined by the general direction and demand for reforming Kazakhstani education. Changes have been made in the education system in order to move the country from bilingual education in Kazakh and Russian to trilingual education in Kazakh, Russian and English. The choice of target languages is based on the idea of the trinity of the country asset out by President Nazarbaev in the following terms: national policy should develop the state language, Kazakh; support Russian; (“New Kazakhstan in the new world”, Presidential message to the people of Kazakhstan) and promote the learning of English. As far as English is concerned, the thinking behind this policy is that English is an international language, the key to many technological, political and economic innovations and ideas.

Educational change naturally begins with the school system. School is always sensitive to changes in society. If society changes, educational policy will change. Teachers in turn have to change because of their key role in the system. Policy change within Kazakhstan has led to a pressing need for the learning of foreign languages; and this has in turn begun to stimulate the interest of school science teachers in this area. Following global ideas and trends, natural sciences like Chemistry, Biology, Physics, and Computer Science have gradually begun to implement the practice of teaching in English; and humanitarian disciplines in their native language. The Ministry of Education and Science of the Republic of Kazakhstan has developed an action plan entitled ‘Roadmap of trilingual education from years 2015-2020’ which sets out the process for the implementation of Trilingual Education Development and a special timetable for the transition to teaching science subjects in English (Strategic plan of development of the Republic of Kazakhstan by 2020). In order to train highly qualified teachers who speak three languages, the Ministry of Education and Science of the Republic of Kazakhstan has allocated large sums of money to organize English language courses for teachers of the sciences.

Despite the fact that the government is creating supportive conditions for learning a foreign language, it is clear that at present the English language presents difficulties for school science teachers. Learning a foreign language requires attention, time, effort and practice. This must take place alongside mastering higher Mathematics, Chemistry, Physics, and special disciplines. The general level of language development in the country today does not fully correspond to international standards. Teachers who took a foreign-language course at a university and in compulsory schools are assumed to have communicative foreign language competence at levels A2 and B1, according to the Common European Scale. However this is far from true. As practice shows, the majority of graduates have had a poor-quality school and university

education in foreign languages. The minimum number of hours allocated to the subject area of Foreign Language is one of main practical reason for this situation; and this has led to the pedagogical and psychological reason for the low level of learners' motivation in learning foreign languages. With this in mind, it was seen as necessary that motivation among school science teachers should be promoted, with difficulties identified, thus providing psychological and pedagogical support in the development of their professional motivation. It is also important to note that due attention should be paid to teacher motivation because one of the most effective ways to improve the learning process is to change the attitude to the need to master a foreign language.

Literature Review

Motivation has different definitions. Motivation is associated with commitment, enthusiasm, and persistence in achieving goals. According to the *Oxford Online Dictionary*, motivation is the “desire or willingness to do something” (Motivation, 2014). Other definitions of motivation are given by *Psychology Dictionary Online*: (1) the driving force setting a direction to the behavior of humans and animals at a conscious and unconscious level, and (2) the willingness of a person to achieve a goal at a physical or mental level (Motivation, n.d.). A motive is what prompts the person to act in a certain way, or at least develop an inclination for specific behavior (as cited in Ali, 2017).

Based on knowledge and social constructivist theory, Williams and Burden (1997) believe that motivation is an action that would cause people to cognitive and emotional consciousness and determines the continuity and periodicity of the peculiarity of people's mental and physical efforts.

As Dörnyei has said: “Without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals, and neither are appropriate curricular and good teaching enough to ensure student achievement” (1997). As teachers, we understand our key role in the process of motivating our students. Unfortunately, it is stated that keeping learners motivated is the second-most complicated challenge for teachers (Hadfield &Dörnyei, 2013).

Among all the definitions, the most influential definition of motivation is given by Gardner and Lambert who state that motivation refers to the scale of efforts to master the language successfully and to feel satisfaction in its application in life (Gardner, Lambert, 1972).

In addition, many researchers and educators agree with Gardner's point of view that “learning the language of another community simply cannot be separated from the learners' social dispositions towards the speech community in question”(Gardner, 1985). Williams adds that: “There is no question that learning a foreign language is different to learning other subjects. This is mainly because of the social nature of such a venture. Language, after

all, belongs to a person's whole social being: it is part of one's identity, and is used to convey this identity to other people. The learning of a foreign language involves far more than simply learning skills, or a system of rules, or a grammar; it involves an alteration in self-image, the adoption of new social and cultural behaviors and ways of being, and therefore has a significant impact on the social nature of the learner". We must not forget that most nations in the world are multicultural and that the majority of people in the world speak at least one second language, which underscores the importance of the social dimension of L2 motivation (Williams, 1994:77). Also there is one more suitable expression about motivation: "When people finally decide to learn English, it must be because they have a reason"(Septimus Hanyeq, Bibit Suhatmady & Syamdianita, 2018).

The issue of motivation in the learning of foreign languages has been studied by scholars worldwide for many decades. Some researchers divide motivation into external and internal; while others, mostly from the West, classify it in terms of integrative and instrumental motivation.

A clear example of external or instrumental motivation is to be found in high-school study. When choosing a future profession, a student has no choice but to learn unfamiliar words and grammatical constructions and rote-learn information in a short time in order to pass exams or tests. In adult life, external motivation can be shaped by the conditions and requirements of working in an international company, where there is no foreign language. It is a fact that external/instrumental motivation is not effective, because, first, in the absence of internal stimuli, the individual fulfills only the minimum requirements. The student does not always strive to get an excellent mark in the exam and "Satisfactory" is considered a positive mark. Second, after the disappearance of the factor that caused the motivation, the person stops learning, and his mind discards the information as "extra" and unnecessary. This is illustrated by the fact that, after passing an exam, students frequently quickly forget the material. This is due to the fact that they give themselves the psychologically incorrect instruction "to learn in order to pass the exam," and not to use the knowledge gained in real and future life.

Internal or integrative motivation finds its origin in the influence of personal aspirations and needs, and is also supported by the emotional component. For example, many people will say that the motivation for learning English is the situation during a holiday where a language barrier exists between them and the locals. It may also be the inability to read the instructions on an imported household appliance. In other words, the motivation in this case is the inner awareness of the need for language proficiency.

Linguistic studies show that integrative (internal) motivation brings faster and more effective results when learning a foreign language than other types of motivation.

Researchers R. Gardner and W. Lambert also consider the study of a foreign language, highlighting two types of motivation for learning a foreign language: instrumental and integrative. Instrumental motivation is a reflection of external needs. The goal of learning a foreign language is not the students' personal desire, but the need for it from the outside. However, it cannot be assumed that instrumental motivation will be sufficient for effective learning of a foreign language. It is important to develop integrative motivation. Integrative motivation is a reflection of personal needs and appears in connection with the desire to identify with the culture of the country of the language being studied: learners attach more importance to meeting and communicating with different people, and the language becomes a tool through which it becomes possible to understand foreigners and their lifestyle. When teaching a foreign language, a balance between integrative and instrumental motivation is necessary. Only with a reasonable combination of these two types it is possible to successfully master a foreign language (Gardner, Lambert, 1972).

Method

Participants

Many researchers believe that two types of motivation (instrumental and integrative) correlate with success in learning a foreign language. To confirm this statement, we conducted an empirical study using a questionnaire.

The survey was conducted among school science teachers through the Shymkent branch of the Kazakhstani's government's National Center for the Advanced Training of Teachers (Orleu). It should be noted that, in contrast to university students and schoolchildren, school science teachers who are being trained through this organization have to study a foreign language for nine or ten months (in a combination of on and off-job training), following an intensive course in English. This is due to the fact that, according to the Concept of "Trilingualism in Education" and world standards, science subjects should be taught in English. A good knowledge of English is also a necessary component of a teacher's professional career growth.

117 teachers of school sciences (Chemistry, Biology, Physics, and Computer Science) were involved in the study. The group was composed of 18 males and 99 females, aged between 20 and 60 years old.

Measures

This was an experimental study. A qualitative-quantitative approach was used. The necessary data was collected from both primary and secondary

sources. Primary data was collected from the relevant field and secondary data was taken from various books, articles, textbooks and electronic sources (the Internet). To measure motivation, a five-point Likert scale was used in the Table 1.

Table 1. Interpretation of motivational level on Likert's scale

Scale	Strongly agree (highest)	Agree (high)	Neutral (moderate)	Disagree (low)	Strongly disagree (lowest)
Score	5	4	3	2	1

The questionnaire consisted of twenty items and covered: 'I strongly agree', 'agree', 'disagree', 'strongly disagree' and 'neutral'. The questionnaire was designed with some modifications to suit the subject teachers. These sources were taken from the Gardner and Lambert model (1972).

Procedure

The questionnaire consisted of the following three sections:

- 1) Section One is entitled 'Participants' Information' and includes four questions. This section is designed to collect information about the demographic and educational profile of participants.
- 2) Section Two has twelve items related to *instrumental* and *integrative* motivation. The first six questions were designed to measure instrumental motivation and the remaining six items were used to measure the integrative motivation of participants in relation to the English language and the English-speaking community.

As participants were from different academic circles and with different levels of English proficiency, the questionnaire was orally translated into Kazakh and Russian by a researcher who taught school science teachers to ensure that participants understood the points accurately to avoid confusion.

- 3) Section Three includes four questions on the main difficulties which school science teachers encounter in learning English and which affect their level of motivation.

Before filling in the questionnaire, the respondents agreed that they were happy to participate in the study. Participants were notified that the information would be strictly confidential and would be used only for research purposes and would not affect their work.

The questionnaire was created on the site www.surveymonkey.com. The questionnaire was distributed electronically (through the WhatsApp social-media app and email) among the school science teachers.

Findings

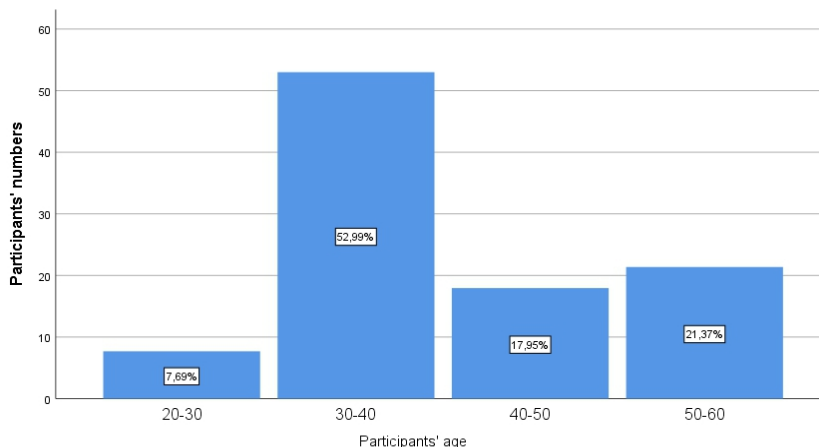
The data collected from the distributed questionnaires was calculated and analyzed using the Statistical Package for Social Sciences (SPSS) and MS Excel. The first section has general information about the respondents. They were 117 science teachers, with 18 males and 99 females between the ages of 20 and 60.

Table 2. Participants' Gender

Gender	Frequency	Percent %
Male	18	15.4 %
Female	99	84.6 %
Total	117	100 %

As shown in Table 2, the predominant respondents were females 84.6%, while 15.4% were males. This may be due to the fact that women respondents seek to get a higher education in the humanities, while men prefer technical studies. Obtaining a university degree is the main requirement of the government of Kazakhstan for promotion and a higher salary.

Chart 1. Percentage ratio between the age and number of the respondents



In the first chart, “General information about the respondents”, questions of nationality were also considered and the language studied by the teachers in the past. Analysis of respondents’ answers to this question indicates that the nationality of the science teachers is as follows: 58.6% Kazakh, 17.8% Russian, 10.1% Uzbek, and 13.6% other nationalities. It is logical that the Kazakh population makes up the largest proportion of the sample. This statistic also confirms the multinational nature of the population of the city, due to the geographic location of the region and its attractiveness for residents of various nationalities.

Diagram 2 shows knowledge of a foreign language. It is clear that knowledge of English (58.97%) and German (35.04%) dominate by a

significant percentage. This indicates that a large number of the respondents are older people. During the time of the USSR, two foreign languages were studied in the main and these tended to be German and English. Only 5.98% of the respondents studied French. A wider choice of languages came about only after the collapse of the USSR.

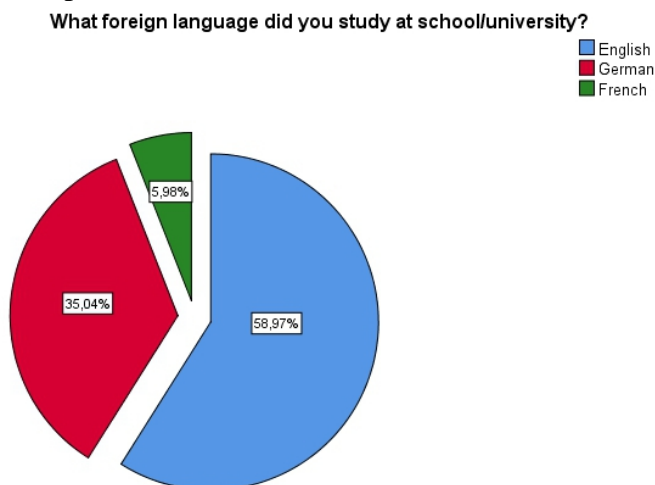


Chart 2. Language previously studied by participants

In the second section of the research, instrumental and integrative motivation in learning English were reviewed and analyzed by the SPSS statistical program and Excel. The questionnaire consisted of twelve items that measure the instrumental and integrative motivations of teachers in relation to learning English.

Table 3. Descriptive statistics of instrumental motivation

#	Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
1	Knowledge of English language is necessary for my professional career	88% (103)	9,4% (11)	2,6 (3)	-	-	4,85	0,42
2	I learn English language to get a certificate	77,8% (91)	16,2% (19)	6,0 (7)	-	-	4,71	0,57
3	I learn English language to increase my salary	82,9% (97)	5,1 (6)	12% (14)	-	-	4,70	0,67
4	I learn English because it is the requirement of the Ministry for Education and Science	58,1 (68)	22,2% (26)	19,7 (23)	-	-	4,38	0,79

5	I learn English to travel abroad	25,6% (30)	23,9% (28)	47,9% (56)	-	2,6% (3)	3,7	0,94
6	The job I do now requires me to use English	77,8% (91)	7,1 (20)	5,1% (6)	-	-	4,72	0,55
Overall							4,51	0,65

Table 3 shows the statistics for instrumental motivation and demonstrates that the percentage for the instrumental motivation of science teachers is high. An exception was item 5 which could refer to the average value. Thus, for respondents, knowledge of the English language is the key to success in work and financial well-being. This is due to the fact that after successful completion of the English language course the salaries of science teachers are increased by 35%; and they will also be accompanied by mentors in their integrated English lessons. The average value for item 5 proves that the respondents do not learn English just because they want to travel the world.

Table 4. Descriptive statistics of integrative motivation

#	Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
1	Learning English will help me understand and appreciate English-speaking lifestyles, cultures and traditions	31,6% (37)	45,3% (53)	23,1% (27)	-	-	4,08	0,73
2	I like learning the English language	32,5% (38)	28,2% (33)	35% (41)	-	4,3% (5)	3,84	1,02
3	Apart from the English course, I work individually to improve my English	17,1% (20)	23,9% (28)	23,1% (27)	27,4% (32)	8,5% (10)	3,13	1,23
4	I plan to continue learning English for as long as possible	33,3% (39)	23,9% (28)	29,9% (35)	4,3% (5)	8,5% (10)	3,69	1,22
5	I like teaching my subject in the English language	41,9% (49)	17,1% (20)	23,9% (28)	14,5% (17)	2,6% (3)	3,81	1,20
6	Learning English enables me to understand English books, stories, movies...	55,6% (65)	41% (48)	3,4% (4)	-	-	4,52	0,56
Overall							3,84	0,99

According to the statistics for integrative motivation shown in Table 4, the mean level of motivation is 3,84 in spite of taking into account the overall average value of all six items measuring integrative motivation. Analyzing all the items, there is high motivation shown in items 1 and 6. Thus, the respondents intend to integrate with English-speaking people; but they show little interest in intercultural relations. In items 2, 3, 4 and 5, it is clear that a large number of the respondents learn individually and like to teach their subjects through English. In general, they showed their positive attitude towards the English language and are aware of the need to learn language in order to be updated and successfully master three languages in society.

This section also looks at the proficiency of the respondents. As the teachers have certificates for passing and receiving a certain level of English, we analyzed the correlation between proficiency and instrumental / integrative motivations. The mean and standard deviations of the descriptive statistics for proficiency, integrated and instrumental motivation are shown in Table 5.

Table 5. *Descriptive statistics for proficiency, integrated and instrumental motivation*

	Proficiency	Integrated motivation score	Instrumental motivation score
Mean	2,5641	23,0940	27,0940
Std. Deviation	1,09375	4,79041	1,77620

Having collected the required data and in order to analyze them, the SPSS statistical program correlated the relationship between the variables of the study. To measure the relationship between *instrumental motivation* and *proficiency*, all six items were used to identify the answers. It was found in Table 6 that items 1, 5 and 6 significantly correlated with proficiency. The emphasis on English language skills for professional growth and job requirements has developed this motivation. Unfortunately, items 2, 3, and 4 negatively correlate with proficiency.

Overall, the Pearson correlation between instrumental motivation and proficiency is $-.183^*$. The table also cast light on the point that there is a significant difference among the variables of the study (sig. =, 048). This proves that the respondents' knowledge of English is incompatible with results of this study. As we have mentioned above, the language level of these respondents is low whereas they have certificates A1-B1.

Table 6. *Correlation between Instrumental Motivation and Proficiency*

#	Items	Pearson Correlation	Sig.(2-tailed)
1	Knowledge of English language is necessary for my professional career	,030	,750
2	I learn English language to get certificate	-,448**	,000
3	I learn English language to increase my salary	-,433**	,000

4	I learn English because it is the requirement of ministry for education and science	-,202*	,029
5	I learn English to travel abroad	,375**	,000
6	The job I do now, requires me to use English	,029	,754

Correlation is significant at the 0.01 level (2-tailed).**

Correlation is significant at the 0.05 level (2-tailed).*

In Table 7, using the SPSS statistical program, the Pearson correlation of integrative motivation and proficiency indicates that there is overall positive correlation ($.510^{**}$) between the level of the language and the integrative motivation. The table also cast light on the point that there is a significant difference among the variables of the study (sig. = .000). It means that respondents are conscious in learning language, internally understand the need of this language and are positively ready to continue their study.

Table 7. Correlation between Integrative Motivation and Proficiency

#	Items	Pearson Correlation	Sig.(2-tailed)
1	Learning English will help me to understand and appreciate English-speaking lifestyles, cultures and traditions	,463**	,000
2	I like learning English language	,541**	,000
3	Apart from English course, I work individually to improve my English	,344**	,000
4	I plan to continue learning English for as long as possible	,331**	,000
5	I like teaching my subject in English language	,422**	,000
6	Learning English enables me to understand English books, stories, movies...	,370**	,000

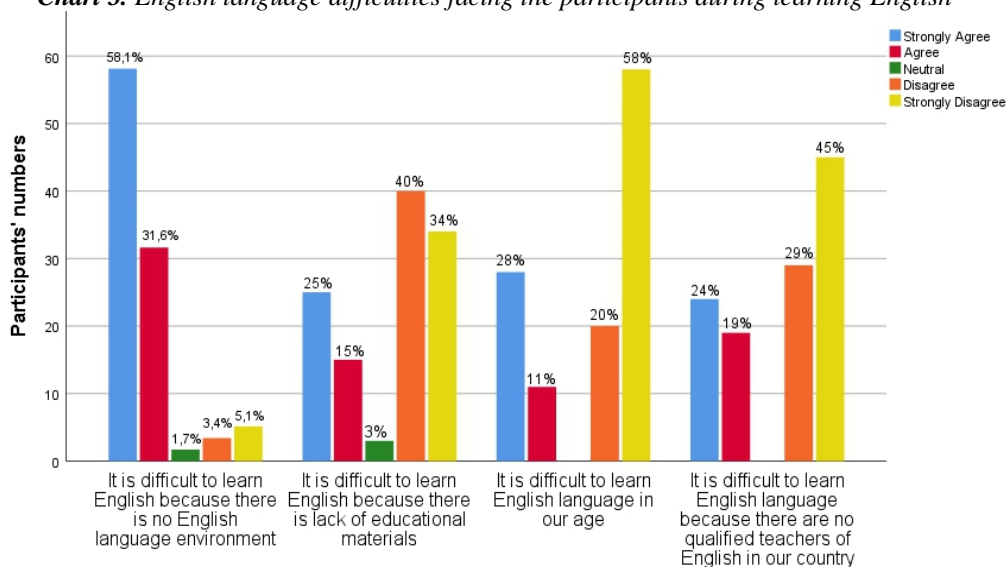
In this section also, four main difficulties which the study participants faced in this period in learning English were described.

Chart 3 reveals that item number one, “No language environment”, is the main cause of the problems in learning English. Here, 58.1% strongly agree and 31.6% agree, making almost 90% for this statement. Respondents state the fact that the geographical position of Kazakhstan is far from English-speaking countries and very few native speakers of English, so there is no language environment where language skills can be developed in real everyday life.

On the second question, “Lack of educational materials”, the main answers are “I do not agree” (40%) and “I strongly disagree” (34%). This indicates that the country has a sufficient number of educational materials for learning English. This is also due to the fact that in this period one of the tasks of implementing the Roadmap for the development of three-language

education is the development and provision of educational and methodological manuals on the integrated teaching of science subjects.

Chart 3. English language difficulties facing the participants during learning English



On the third question "It is difficult to learn English language in our age", 58% of the respondents aged 20-50 responded "Completely disagree", commenting on the need to learn English, and their relative youth. Respondents aged 40-60 indicated a low motivation of 28% and 11%, citing the fact that languages should be taught at a young age, making it therefore physically and mentally hard for them. Some teachers were retired or were in pre-retirement age.

The fourth question, "it is difficult to learn English in our country" illustrates the fact that there are enough competent English teachers in the country.

Conclusion

The purpose of this work was to investigate school science teachers' learning of the English language; and their attitude towards learning a foreign language. The results of this study present some unique observations. Based on the results and discussions, it was noted that the level of instrumental motivation was higher than the level of integrative motivation among the participants. This fact is consistent with many studies about the motivational issues conducted by researchers around the world. This emphasizes that in most countries where English is taught as third language learners of a foreign language are motivated more instrumentally rather than integrative. This is a clear example of this state of affairs. The instrumental motivation for school

science teachers to learn English was practical, such as salary increases or promotion.

According to the information gathered in this study about integrative motivation, it is pleasing that the level of integrative motivation is average, not low. This finding indicates a positive attitude towards learning English in spite of teachers' low proficiency and difficulties in learning English. Commenting on the difficulties, participants admitted that our government tries to create favorable conditions for learning the English language by providing qualified teachers, educational materials and well-equipped facilities.

But there are some significant features which cannot immediately be changed, such as the teachers' age and the lack of a suitable language environment. In this study, teachers with experience took part: 38 % were aged 40 to 60. Teachers of pre-retirement age complained that it was difficult to learn English at their age, referring to bad memory, weak health and lack of time. Another important fact highlighted is that there is no English-language environment in Kazakhstan. Because of its geographical position, Kazakhstan borders with countries which have one main common language: Russian. It is necessary to emphasize that the Russian language has always been and remains a powerful means of interconnecting and rallying the multi-ethnic people of Kazakhstan whose roots go back to the depths of history.

To sum up, the current study had been conducted to identify the respondents's attitude and motivation towards the English language. The findings show that the teachers are aware of the importance of the English language and have certain reasons for learning it which was shown in the positive correlation between integrative motivation and proficiency. In addition, based on the research, it is possible to note that teachers should have even balance between instrumental and integrative motivation in order to master the English language for their future teaching career.

References:

1. Ali, M.E. (2017). Types of Motivation among Sudanese Learners. *International Journal of Education and Social Science*, 4 (2), 33-36
2. Dornyei, Z. (1997). Motivational factors in second language attainment: a review of research in Hungary. *Ada Linguistica Hungarica*, 44, 261-75.
3. Gardner, R.C. (1985). *Social Psychology and Second Language Learning: The role of attitudes and motivation*, London: Edward Arnold.
4. Gardner, R. C., & Lambert, W.E. (1972). *Attitudes and Motivation in Second Language Learning*. Rowley. MA Newbury House Publishers.

5. Hadfield, J. and Dörnyei, Z. (2013). *Conditions for the Motivating Capacity of Vision. Part 1. Research and Resources in Language Teaching: Motivating Learning*, 4. Pearson Education Limited. Harlow: United Kingdom.
6. Hanyeq, S., Suhatmady, B., & Syamdianita. (2018). Students' instrumental and integrative motivation. *Proceeding of the 65th TEFLIN International Conference*, Universitas Negeri Makassar, Indonesia, 65(1).
7. Ministry of Education and Science of the Republic of Kazakhstan, (2010). "State Program of Education Development in the Republic of Kazakhstan for 2011- 2020". Retrieved from
8. <http://www.edu.gov.kz/en>
9. Motivation. *Psychology Dictionary Online*. Retrieved from <https://psychologydictionary.org/motivation/>
10. Motivation. (2014). In *Oxford Online Dictionary*. Retrieved from <http://www.oxforddictionaries.com/definition/english/motivation?q=motivation>
11. Nazarbayev, N.A. (2007). *New Kazakhstan in a new world: Address by the President of the Republic of Kazakhstan to the People of Kazakhstan*, Astana. Retrieved from <http://www.edu.gov.kz>
12. *Roadmap of trilingual education for 2015-2020*, Decree of the President of the Republic of Kazakhstan, No. 622 from November 5, 2015, Astana
13. *Strategic plan of development of the Republic of Kazakhstan by 2020*. 2010. Retrieved from http://www.akorda.kz/en/official_documents/strategies_and_program
14. Williams, M. (1994). Motivation in foreign and second language learning: An interactive perspective. *Educational Psychology*, 91, 76-97.
15. Williams, M. & Burden, R. (1997). *Psychology for language teachers*. Cambridge: Cambridge University Press.