

**STEM and Social Sciences Students' Language-Oriented Academic Challenges in English Medium of Instruction (EMI) Programs: The Case of An International University in Kazakhstan**

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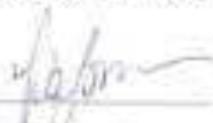
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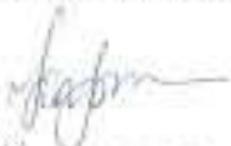
  
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### Ethics Committee Approval

**GSE Research committee** <gse\_researchcommittee@nu.edu.kz> Fri, Nov 4, 2016 at 12:44 PM  
To: Akmaral Karabay <akmaral.karabay@nu.edu.kz>  
Cc: Bridget Goodman <bridget.goodman@nu.edu.kz>

Dear Akmaral,

The NUGSE Research Committee reviewed the project entitled "EMI in Kazakhstani Higher Education: STEM and Social Sciences Students' Academic Challenges"

and decided:

To grant approval for this study subject to minor changes, to be discussed with supervisor

**Approval subject to minor changes:** The study is approved subject to minor changes.

#### Reviewers' comments:

How are you recruiting your 2 groups of participants (staff and students)? How will you gain access to your participants? I think some discussion on access is necessary, particularly as you plan to recruit from the school you are currently attending; briefly acknowledge this. You also indicate that you chose this university as a site because "its language of education is English" - Is this the only university in Kazakhstan in which English is the primary mode of communication? Please clarify.

You also need to explain how you will protect student-teacher confidentiality. For example, if a student is struggling academically they may not want their teacher to discuss such a private issue with a researcher - must explain how you will address this. Also, regarding Focus Groups - more explanation is required regarding how you will provide anonymity/confidentiality for focus group participants. You indicate that you will "try to avoid the data which even indirectly might reveal participant's name..." - why can you not guarantee this? How will you ensure confidentiality in focus groups (among participants)? Please explain.

You only describe risks regarding the university's name being revealed - although, I do wonder why the institutions name can not be anonymized in the study? Also, you do not describe any risks to your participants. I think there are various potential risks in terms of student-teacher/professor confidentiality. These should be explained.

Consent Form: 1) Description - include how long you will keep the data for and indicate what the data will be used for. Indicate whether you will keep the institution/university name confidential in all reporting. (2) Student Consent Form - Risks and Benefits - I think there are some minimal psychological risks involved for student participants - please consider risks from a student's perspective. Students' academic challenges, issues, and difficulties are sensitive matters, and needs to be addressed as such in your study. Also, how will you ensure participants in focus groups do not disclose information about other participants when they leave the focus group? What measure will you take to minimize risks of participants' discussing other participants' academic challenges outside of the group when leave ?

Before starting your data collection, you need to discuss these changes with your supervisor, revise your proposal accordingly, and then ask your supervisor to check the revised proposal.

Sincerely,  
NUGSE Research Committee

### **Acknowledgements**

I would like to thank all people who contributed in some way to my work represented in this thesis. First and foremost, I would like to express my gratitude to my thesis supervisor, Dr. Bridget Goodman, who guided and supported me throughout the process of thesis writing. Dr. Goodman believed in me and made me believe that the work I did in my thesis is unique and interesting. I also would like to thank my English instructors for their support. Their roles in conducting the study and putting it into words were extremely unique.

I would like to acknowledge all my instructors, who contributed to a valuable experience I got in Graduate School of Education by engaging me in new knowledge, demanding a high quality of work in all my endeavors, supporting my participation at conferences.

Finally, I thank my family and friends who supported me during these two years I spent here.

**Abstract****STEM and Social Sciences Students' Language-Oriented Academic Challenges in English Medium of Instruction (EMI) Programs: The Case of An International University in Kazakhstan**

English Medium of Instruction (EMI), that is teaching subjects in English, is becoming a new phenomenon across Kazakhstani Higher Education. However, students have the language challenges when studying in English since it is not their first language. Therefore, the study has investigated STEM (i.e. Science Technology Engineering and Mathematics) and Social sciences students' perceptions on choosing EMI and language challenges in EMI academic environment in an international university whose practices can be translated to other state universities newly implementing EMI. The research questions that guided study are as follows: What are STEM and Social sciences students' and teaching administrative staff perceptions of EMI and how do they describe and address the students' language challenges in academic contexts in EMI programs? The study is drawn upon qualitative case study research design employing interviews with 3 teaching-administrative staff members from 3 departments (2 STEM and 1 social sciences school), 1 university administrator as well as 1 focus group and 7 in-depth interviews with students. The data indicate that STEM and social sciences students have different level of language challenges. However, what was similar across the majors is that their challenges were mostly oriented on writing and speaking. Professors showed their awareness about the language challenges of students, although their understanding differed a bit in some details such as the nature of listening challenges caused by professors' language deficiency. In contrast, support provided by university and professors reportedly addresses students' academic difficulties during their studies. Yet, unlike social sciences, in STEM areas students are less likely to get their language improved by the end of their studies. Overall,

the study suggest professors to interact with students more to learn and address students' language challenges. As EMI cannot guarantee students' English improvement, students may enhance the language by creating English environment around themselves.

**Аннотация****Проблемы Студентов Направления STEM и Социальных наук в Академическом Контексте Программ с Английским Языком Обучения (EMI):****Пример Международного Университета в Казахстане**

Английский язык обучения (EMI), то есть обучение предметов на английском языке, стало новым феноменом в Казахстанском высшем образовании. Тем не менее, у учащихся возникают трудности в ходе обучения на английском языке, так как английский язык не является их родным языком. В этой связи, в данном исследовании изучены восприятия и причины выбора обучения на английском языке студентов STEM (то есть наук, технологии, инженерии и математики) и социальных наук, а также их языковые проблемы в академической среде международного университета, практики которого могут быть переведены в другие государственные университеты, внедряющие обучение на английском языке. Вопросы, которыми руководилось исследование, состоят в следующем: Что представляют собой восприятия студентов STEM и социальных наук, а также преподавательского-административного персонала университета об обучении на английском языке, а также какие языковые проблемы возникают у студентов в академическом контексте программ с английским языком обучения и как эти сложности решаются? Данная работа основано на качественном методе исследования, в котором использовались интервью с 3 преподавателями-администраторами из двух факультетов STEM и одного факультета социальных наук, 1 администратором университета, а также 1 фокус-группа и 6 интервью со студентами. Данные исследования показывают, что студенты STEM и социальных наук имеют разный уровень языковых проблем. Однако одинаковым является то, что их проблемы в основном ориентированы на письмо и устную речь. Профессора продемонстрировали свою осведомленность о

языковых проблемах студентов, хотя их понимания немного отличались в некоторых деталях, например, в таких, как характер проблем с аудированием, вызванных языковой недостаточностью преподавателей. Поддержка, предоставляемая университетами и преподавателями, отвечает нуждам студентов, чтобы справляться трудностями академического языка. Тем не менее, в отличие от студентов социальных наук, в СТЕМ областях студенты, очевидно, имеют меньше шансов улучшить свой язык по окончании университета. Исследование рекомендует преподавателям более тесно взаимодействовать со студентами, чтобы они, то есть преподаватели, могли узнать и предоставить поддержку в решении языковых проблем студентов. Поскольку обучение на английском языке не может гарантировать улучшение английского языка, студенты сами могут улучшить язык, создав вокруг себя английскую среду.

**Аңдатпа****Ағылшын Тілінде Оқыту Бағдарламаларындағы STEM және  
Әлеуметтік Ғылым Саладағы Студенттердің Академикалық Контексіндегі  
Тілдік Қиындықтары: Қазақстандағы Халықаралық Университетінің  
Мысалында**

Ағылшын тілінде оқыту Қазақстанның жоғарғы оқу орындарында жаңа феномен ретінде жиі қолданысқа ие болып келеді. Дегенмен, ағылшын тілінде оқу барысында студенттер тілдік қиындықтарға тап болады, өйткені ағылшын тілі студенттердің ана тілі емес. Осы орайда, бұл зерттеу жаңадан ағылшын тілінде оқытуды енгізуді бастаған университеттерге ағылшын тілінде оқыту тәжірибесін өткізе алатын халықаралық университеті негізінде STEM (ғылым, технология, инженерия, және математика бағыттары) және әлеуметтік ғылымдар саладағы студенттердің ағылшын тілінде оқу туралы түсініктері, ағылшын тілінде оқуды таңдау себептері мен академиялық ортадағы тілдік қиындықтарын анықтауға бағытталған. Зерттеу жұмысты бағыттаған зерттеу сұрақтар келесідей болып табылады: STEM және әлеуметтік ғылымдар саладағы студенттердің ағылшын тілінде оқу туралы түсінігі қандай және осы студенттер мен профессорлық-әкімшілік персоналдың ойынша студенттердің ағылшын тілінде оқу академиялық тұрғыдағы тілдік қиындықтар қандай және осы қиындықтар қалай шешеліп келеді? Бұл жұмыс сапалық зерттеу арқылы, екі STEM және бір әлеуметтік ғылымдар факультеттерінің 3 оқытушы-әкімшілері, 1 университеттің әкімшілік өкілі мен сұхбаттар, студенттермен 1 фокус-группа және 6 сұхбаттарында негізделген. Зерттеу нәтижелері STEM және әлеуметтік ғылымдар саласындағы студенттердің тілдік проблемалары әр түрлі деңгейде екенін көрсетеді. Алайда, олардың проблемалары негізінен жазбаша және ауызша дағдыларға бағытталған. Профессорлар студенттердің тілдік қиындықтары

туралы хабардыр екенің көрсеткенімен, олардың түсініктері студенттердікінен айрықша болды. Мысалы, профессорлардың тіл тапшылығынан туындаған тындап-түсіну қиындығы туралы. Жоғары оқу орыны мен мұғалімдер көрсетіп келген қолдау академиялық тілдік қиындықтарды жеңе студенттердің қажеттіліктерін қанағаттандырғаны белгілі болды. Алайда, әлеуметтік ғылымдар саласының студенттеріне қарағанда, STEM саласының студенттерінде университеттің соңында өз тілін жақсарту мүмкіншілігі аз. Жалпы, зерттеу студенттердің тілдік қиындықтарын біліп және оларды шеше алу үшін, студенттерге көмек ұсына алу үшін профессорларға студенттермен өзара байланысын нығайтуды ұсынады. Ағылшын тілінде оқу студенттердің ағылшын тілінің жақсаруына кепілдік бере алмайтындығынан, студенттер өздерінің ағылшын тілін жақсарту үшін, айналасын ағылшын тілге толтыру ұсынылады.

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## **Chapter 1: Introduction**

With the growing influence of globalization, higher education institutions worldwide have directed their policy towards internationalization (Maringe, 2010). Thus, the overwhelming attention around internationalization of higher education influenced the universities to want to become international institutions (Knight, 2015). In Kazakhstan, internationalization policy has touched upon different aspects of the Higher Education system, bringing such new concepts as academic mobility, international research and cooperation, and quality assurance (Maudarbekova & Kashkinbayeva, 2014) and introduction of courses with English as Medium of Instruction (EMI).

In fact, implementation of EMI plays crucial role in internationalization of educational institutions and it is widely becoming a phenomenon across the world educational system (Doiz, Lasagabaster, & Sierra, 2013; see also Jenkins, 2014, Phillipson, 2006). At this point, it is worth acknowledging the wide prevalence of English, which is not just a first or foreign language, across the world (Coleman, 2006), but the global academic lingua franca (Altbach & Knight, as cited in Jenkins, 2014; Coleman, 2006) and “international language of science” (Ferguson, 2007, p. 12).

### **Problem Statement**

The roots of EMI in Kazakhstan go back to trilingual policy promoted by government and which states that the Kazakh language is expected to be spoken by all Kazakhstani population, while Russian and English by 95% and 25 % of the whole population respectively by year of 2020 (Ministry of Education and Science, 2010). The importance of English was also clearly stated by President N. Nazarbayev in his address (Zhumzhumina, 2013, para. 5): “we need the English language to enter the global arena; out of 10 million books published in the world 85% are in English; the science, all the new developments and information - they are all in English nowadays”. It is also worthwhile to

note that the spread of English language in education in Kazakhstan is believed to promote the country's economic growth and its integration to the world educational community. Therefore, Kazakhstani education is gradually shifting to the trilingual education in secondary schools and to the usage of EMI in higher education. In fact, in 2015 there were nearly 40 universities out of 139 offering EMI courses in Kazakhstani universities and its number has been growing dramatically (Seitzhanova, Plokhii, Baiburiev, Tsaregorodtseva, 2014).

However, the research shows that educational institutions across the world face challenges in EMI programs (Hu & Lei, 2014), let alone Kazakhstan's case. The challenges can be extended from macro to micro level – from university to the students' level. In addition, Kazakhstani Higher Education with EMI programs is still a developing system and not much research has been done in this field since EMI in Kazakhstani Higher Education first appeared only two decades ago.

One of the groups of stakeholders that encounter the difficulties is students since it is challenging for students to learn and perform in foreign language due to the lack of language proficiency (Jimenez-Munoz, 2015). At this point, English is neither students' first language nor local language as well in Kazakhstan. In addition, Dafouz and Camacho-Miñano (2016) add that it is important to investigate the influence of EMI on students' disciplinary knowledge in order to ensure that EMI universities provide equal opportunities for students in knowledge construction regardless of the medium of instruction. Therefore, investigating students' language challenges in EMI academic context the study can shed light on the issue and help to understand students' issues and balance support for addressing their language challenges. However, students' perceptions about and reasons to choose EMI might influence the way they look at the language challenges. Therefore, in

order to get more explicit picture about students' language challenges, it is suggested to study students' perceptions about EMI.

The study is narrowed down to the case of international university. This focus of the study is rationalized as follows. In Kazakhstani higher education universities are categorized as national, international, state, non-civilian, private and corporatized (MoES, 2011), although they can also be divided as local and international. In fact, the academic governance of local institutions is centralized (see Hartley, Gopaul, Sagintayeva, & Apergenova, 2016). Therefore, most of the actions towards internationalization in local institutions can be assessed as top-down (see Knight, 2004), imposed at national level. However, international universities are granted certain level of autonomy.

Considering the possibility of translating international practices, particularly Western, to Kazakhstani universities, Hartley, Gopaul, Sagintayeva, and Apergenova (2016) state that "transplanting policies from one context to another can prove problematic" (p. 283). At this point, EMI practices of the international university from the same context as local universities can be shared and translated more successfully. Yet, along with EMI practices, challenges can be translated as well. Therefore, to prevent this it is important to study what the challenges in international universities are.

### **Purpose and Research Questions of the Study**

Considering the above mentioned, the given study aims to investigate students' perceptions and reasons for studying in EMI programs considering faculty staff members' perspectives on the issue as well in the case of international university. Exploring students' perception of choosing EMI programs one can understand the level of motivation that serves as leverage for students in the struggle of studying in English. Then, the study also sets a goal to investigate undergraduate STEM and social sciences students' language challenges in academic context in EMI program in Kazakhstani university and the ways

they are addressed by students and teaching-administrative staff. The reason why STEM and Social Sciences students' language challenges are considered separately is that students from different study areas might have different challenges. So, by considering students' language-oriented academic challenges in EMI in relation to their majors, there is an opportunity to compare the findings among different majors as well.

To achieve the purposes of the research, the following **research questions** have been developed:

- 1) What are STEM and Social students' and teaching administrative staff perceptions of EMI?
- 2) How do STEM and Social Sciences students, and teaching-administrative staff, describe and address the students' language challenges in academic contexts in EMI programs at a Kazakhstani international university?

To get better inside answer for the second question I set the following sub-questions:

- What are STEM and Social sciences students' language challenges in EMI academic environment in universities from the perspective (a) of students, (b) teaching-administrative staff?
- How do STEM and Social sciences students overcome the language challenges in EMI academic environment in universities?
- What is done by universities to help students to overcome the challenges in EMI programs?
- How do stakeholders evaluate institutional policy measures on students' challenges in EMI programs?

### **Significance of the Study**

The study focuses on students' language-oriented academic challenges in EMI program as well as teaching-administrative staff's perceptions about the issue. Therefore, policy makers and main stakeholders (teaching staff, administrative staff) can get an opportunity to learn the possible hold-back indicators for English language programs and try to eliminate them for successful realization of language policy of the university. By examining how different stakeholders address STEM and social sciences students' language challenges, the study can also spot at the effectiveness of support provided by university and faculty staff in addressing the language challenges. In addition, Kazakhstani universities that are implementing EMI can learn about possible language issues with students.

### **Definitions of Terms**

There are several definitions that have to be determined for the study. First, English as a Medium of Instruction (EMI) is "the use of the English language to teach academic subjects in countries or jurisdictions where the first language (L1) of the majority of the population is not English" (Dearden, 2014).

Another concept that has to be identified before the study proceeds is the concept of language challenges in academic context. The study considers language-oriented academic language as academic challenges of students caused by the lack of their language proficiency and lack of support from teaching and administrative staff. Language proficiency is often expressed through four language skills, e.g., International English Language Test System, Common European Framework of reference for languages (Council of Europe, 2002). Therefore, the challenges are explored in relation to writing, speaking, reading and listening skills.

Since the concept of international university is obscure and context-dependent (Knight, 2015), it also needs to be determined. In this study, to define the notion of international university the Knight's framework of international universities is employed as it suits best to the given study. The given framework divides them into three types: classic, satellite, internationally co-founded/developed universities. According to it, the international university chosen as research site is internationally co-developed university with the elements of classic model, i.e. "a new independent university involving one or more foreign partner institutions" (p. 112), but "not operating as satellite operations of a parent institution" (p. 113) and which has "international partnerships, international students and staff, and multiple international and intercultural collaborative activities at home and abroad" (p. 107). Considering that, English is the only academic lingua franca of the university.

### **Introduction to the Structure of the Thesis**

The given thesis is composed of six overarching themed chapters including introduction. The remaining parts proceed as follows: literature review, methodology, findings, discussion and conclusion. Chapter Two, the literature review, begins by laying out the theoretical dimensions of the research, and presents critical review of the profound and recent studies relevant to EMI programs in Higher Education, conducted in the international and local context. The third chapter is concerned with the methodology used for this study. The findings chapter analyzes the results of interviews and focus group discussions undertaken to answer the research question of the study. In the next section, which is discussion, findings of the study are analyzed in relation to the literature review. It will then go on to conclusion chapter that provides summary of undertaken study, recommendations for stakeholders, and limitations that suggest possible directions for further research.

## Chapter 2: Literature Review

### Introduction

Not much research in the area of EMI has been conducted in Kazakhstan since it is a new practice in Kazakhstani Higher Education system. Nevertheless, there are myriad sources discussing the growing use of EMI in higher education worldwide and its influence on various spheres of education system. The studies cover a range of issues from reasons for the growing use of EMI to various stakeholders' views on the use of EMI in tertiary education. This chapter presents the analysis of the literature on EMI and its concepts that are pertinent to the research questions posited: 1) What are STEM and Social students' and teaching administrative staff perceptions on EMI? 2) How do STEM and Social Sciences students, and teaching-administrative staff, describe and address the students' language-oriented academic challenges in EMI programs in a Kazakhstani international university?

The analysis of sources in this part of the study is presented in the following sequence. To begin with, the contextual reasons for growing EMI phenomenon in higher education are mainly brought about by internationalization processes and globalization demands (Altbach & Knight, 2007; Byun et al., 2011; Coleman, 2006; Hou, Morse, Chiang, & Chen, 2013; Hu, Li, & Lei, 2013; Yeh, 2014). Therefore, in order to understand EMI and the issues it raises, firstly, the role of globalization and internationalization will be identified in this chapter. Although these are two main causes of EMI, many studies investigated stakeholders' perceptions about EMI and other reasons for EMI. They will be discussed further in this chapter. Although stakeholders' attitude is mainly positive to EMI, challenges with introducing and practicing EMI are still there. In fact, students' perceptions and reasons to study in EMI programs may indicate on their perception of challenges. Therefore, as the present study aims to investigate students' language-oriented academic challenges in EMI and measures used to tackle them, later in the chapter I

discuss worldwide empirical research on the experiences of various stakeholders including teachers, administrations and students in EMI programs (Byun et al., Goodman, 2014, 2014; Hou et al., 2013; Hu & Lei, 2014; Sert, 2008; Yeh, 2013). Having understanding of what academic difficulties students studying in EMI programs have across the world and how are they addressed, I step further and analyze EMI students' language issues in comparison with academic language challenges of non-native English students in English-dominant contexts. Thus, one can see how various institutions across the world address the challenges of students studying in non-native language.

### **The Concepts of Globalization and Internationalization and Their Relationship to EMI**

Globalization and internationalization are often credited for the expansion of EMI worldwide. In fact, globalization and internationalization are frequently understood as “mutually reinforcing ideas, especially in the field of Higher Education” (Maringe, 2010, p. 18). Moreover, the term of internationalization has been often confused with globalization, although they are not interchangeable in meaning (Altbach, as cited in Altbach & Knight, 2007; Knight, as cited in Im & Kim, 2015). Therefore, in order to explain the expansion of EMI, it is important to define these concepts.

To begin with the first concept, according to Altbach and Knight (2007), in the context of higher education globalization is defined as “the economic, political, and societal forces” (p. 290) that drive contemporary higher education to the internationalization (see also Im & Kim, 2015; Zolfaghari, Sabran, & Zolfaghari, 2009). According to Altbach and Knight (2007), these forces can bring along elements as:

the integration of research, the use of English as the lingua franca for scientific communication, the growing international labor market for scholars and scientists,

the growth of communications firms and of multinational and technology publishing, and the use of information technology (IT). (p. 291)

Thus, one can say the usage of English as a common language for communication, collaboration in research and informational advances can remove borders between units of higher education spreading out globalization.

In turn, the concept of internationalization in the scope of Higher Education is described as a “the process of integrating an international/intercultural dimension into the teaching, research and service functions of the institution” (Knight, as cited in Qiang, 2003, p. 249). Zolfaghari et al. (2009) extended this definition further by identifying its three sub-concepts: infrastructure, research, and teaching. Although the focus of the given study is on EMI in the frames of academic process, drawing upon the only aspect of teaching and ignoring the sub-concepts of research and infrastructure might not give a full picture of the research issue of students' challenges in EMI programs since they all are interrelated. Therefore, the study does not limit the focus to one concept only.

In comparison to the concept of internationalization, Jackson (as cited in Jenkins, 2014) gives an insight to the goal of international education and claims that an international university aims to educate students from any background, knowledge and skills, making them competent in the global and intercultural world. Though, Van der Wende (as cited in Qiang, 2003, p. 250) argues that internationalization is not a goal of higher education, but rather a tool to achieve a set of objectives such as enhancement of academic quality and services as well as a system as whole. Zolfaghari et al. (2009) also add that the complexity of objectives is determined by various participants of the education process (academic and non-academic staff, students and private sector), curriculum and government.

The most striking difference between globalization and internationalization is that the former may remain “unalterable” (Altbach & Knight, 2007, p. 291) across contexts, while the latter needs to be aligned with the peculiarities of a specific nation (Altbach & Knight, 2007; Qiang, 2003). This means that national and cultural differences define the mode of internationalization of higher education, while the elements of globalization tend to be same across the world.

As such, it becomes clear that characteristics of a country or a university have to be considered when defining the perspective of internationalization. As an example, Knight (2004) offers a theory of top-down and bottom-up approach of identifying the mode of internationalization of a university. Here, the approaches are connected to the factors that push university to internationalization: whether the university's status has been internationalized at an institutional level (bottom-up) or it is external force at national level (top-down) that influence “international dimension of higher education through policy, funding, programs, and regulatory frameworks” (p. 11).

In contrast, as Stohl (as cited in Bedenlier & Zawacki-Richter, 2015) and Macaro (2015) point out, there is common requirement for international universities: regardless of the internationalization status of the university, it has to employ multinational faculty as an evidence of “teaching and research force” (p. 5). However, in EMI universities the meaning of multinational faculty has to be determined since native English and native-like English speaking lecturers as well as foreign teachers with low proficiency of English are equally considered as international staff. This view is supported by Macaro (2015), who questions the influence of internationalized faculty on the “quality of teaching and research components of the university. Therefore, considering the research questions of the inquiry, which is students' perceptions and language challenges in EMI programs in an

international university, the internationalization 'history' of the research site and the issue of English language proficiency of staff are taken into account in the given study.

Indeed, there are a number of rationales for striving to internationalization of higher education. One of the fundamental reasons is confirming and enhancing the economic competitiveness of a country (Johnston & Edelstein, as cited in Qiang, 2003). However, along with economic prospects that internationalization can bring, there are political, academic and cultural/social rationales (Knight, as cited in Qiang, 2003). In the Kazakhstani context, internationalization is driven by economic goals, however, other needs are also factored in its development (see MoES, 2010). In fact, although the process might be mostly driven by economic needs, academic and cultural/social underpinnings of the process may take a larger role in its implementation as well. For instance, Qiang (2003) claims that academic mobility, quality enhancement, degree and curriculum compatibility, language education and teaching through global languages can reflect cultural and/or social rationales.

Considering the variety of interpretations of internationalization and focus of the given research, in this study the concept of internationalization is regarded as follows. Internationalization of higher education is a process of bringing international dimension into teaching through the use of English as the lingua franca for scientific communication (the element of globalization, mentioned earlier) in order to educate globally competent students in multicultural world. The given study employs this definition of internationalization because the focus of the study, which is English as medium of academic instruction, is viewed through the concept of internationalization. Moreover, in this study the way a university was internationalized matters: whether it is local university or international university. In fact, internationalization process of international universities

is mainly bottom up, while in local universities all policies come from the top and may not be adapted to the characteristics of the universities.

From the review of literature, it can be concluded that internationalization of higher education has been a reaction to globalization (Maringe and Foskett, 2010; Qiang, 2003). In relation to these concepts, EMI is one of the forces of globalization that quickly proliferated in the higher education space (Coleman, 2006; Maringe, 2010; Doiz, Lasagabaster, & Sierra, 2011). Although it is clear that globalization and internationalization have been the main causes for the growing use of EMI in education system, there is a large volume of additional empirical evidence that is aligned with the globalization and internationalization framework.

### **Reasons for Growing Use of EMI in Higher Education**

Even though EMI is generally viewed as a strategy to internationalize institution (Hou et al., 2013), Dearden (2014) states that these reasons vary from country to country based on their “contextual, geographical, historical and political” (p. 14) background. Nevertheless, findings from a number of studies show a similar trend in defining reasons for EMI phenomenon.

In their extensive research that aimed to understand the tendency of introducing EMI program in Taiwanese higher education institutions, Hou et al. (2013) employed qualitative interviewing approach involving 6 experts in higher education and 168 quantitative survey questionnaires from teaching staff, and came up with several major reasons. According to their findings, one of the primary reasons for students to choose EMI is future career opportunities that education in English can provide by developing language skills' in scientific knowledge. Hou et al. (2013) continued that through EMI programs a university also aims to produce graduates with international-oriented skills for domestic

labor market. The research also revealed that the university wants to attract international students and scholars by means of providing EMI programs.

Not surprisingly, having discussed the same issue, but in the Korean context, Byun et al. (2011) reported that the Korean government acknowledges that EMI is advantageous for students' career prospects and universities' international cooperation as well. Similarly, Chinese researchers Hu, Li and Lei (2013) employing documents analysis and focus group interviews with 10 students as well as interviews with 5 university teachers also revealed reasons for introducing EMI in tertiary education institutions in their country. Yet, along with career opportunities for individuals and internationalization process of institution the reasons were expanded to enhancing English language proficiency as well as providing an access to global knowledge. Besides, Coleman (2006) in his review points out the same motives for EMI in European Higher Education. Another research that discovered reasons of EMI was conducted by Yeh (2014) who in large-scale study surveyed 476 Taiwanese students and found out that EMI was considered to be good for students' English proficiency, motivation to learn and professional growth.

When it comes to Kazakhstani context, there have been a few studies that try to identify the role of English for the educational system. So far, Mazhitaeva, Smagulova and Tuleuova (2012) reviewed in their analytical report the importance of multilingual education in Kazakhstan and stated several reasons for the promotion of English in education system. The reasons are that the knowledge of English and studying in English will help the country to integrate world educational arena which in turn will lead to that our specialists will become more competitive in the world labour market (Mazhitaeyva, Smagulova, & Tuleouva, 2012).

In contrast, Kirkpatrick (2014) claims that EMI concept in Asia is more problematic than in Europe regardless of the universal motives to implement EMI. He

clarifies that in Asian countries EMI is introduced with very little planning almost entirely to get international rankings and possibly also to attract international students' fees, or even more importantly to prevent local students from going overseas, so they could get EMI education within a country. However, Asian traditional EFL pedagogy is not ready to prepare students for using the language for expanded academic use (Sawir, 2005).

To be precise, findings from research show that the growing use of EMI is caused by desire to meet global demands and help students to succeed in their careers. Although EMI has become a growing phenomenon in higher education, there is not clear consensus in stakeholders' perception. The research on positive and negative perceptions will be summarized in the next section.

### **Research on Stakeholders' Perceptions about Growing EMI Trend in Higher Education**

What a number of research studies from Asia and other parts of the world mostly have in common is an orientation of research on main stakeholders' attitude and experience in EMI programs. For example, Goodman (2014), Byun et al. (2011), Yeh (2014), Lai (2013) and others conducted research on revealing students' challenges and perception and faculty attitudes towards English programs. Reviewing empirical research on the given aspect of the topic, general positive attitudes and perceptions of stakeholders towards EMI in higher education has been revealed. Nevertheless, some stakeholders still reflect on their anxiety about students' studying in EMI in tertiary education.

One of the large-scale research studies was conducted by Jenkins (2014) who focused on staff perception on EMI in a university. She explored attitudes and awareness of faculty teaching EMI programs to better understand the influence of internationalization on university language policy and practice. The open-ended questionnaires were spread out to the East-Asia countries, Latin America, Mainland Europe and Anglophone countries.

The most important finding of the given research was a positive trend in attitude and support of English as the lingua franca of global higher education. In the same vein, Doiz, Lasagabaster, and Sierra (2011) studied staff perception on EMI interviewing 5 professors and came up with similar findings.

In order to identify changes in students' attitudes towards language policy before and after language policy, Lai (2013) first surveyed approximately 900 Chinese university students from Chinese and English medium instructions and then, in eight years period, nearly 1200. He explored the positive impact of the medium of instruction policy on students' attitudes towards their native languages and revealed optimistic attitude toward English as a Medium of Instruction.

Surprisingly, along with positive perceptions on EMI, Jenkins's study (2014) also revealed that there are certain difficulties for students to study in EMI environment which are the understanding of the English of others and lack of proficiency in Academic English. She also claims that faculty in most cases are aware of them. Besides, trying to understand people's attitude towards EMI, Yeh (2014) revealed in his research that stakeholders who showed positive reaction towards EMI also worry that teaching and learning in English, which is not native, may negatively affect on professional knowledge. In addition, socially vulnerable groups of people are disadvantaged since they may fail in accessing knowledge of a global quality (Dearden, 2014).

Overall, even if reasons for implementation of EMI in higher education are similar across the world, stakeholders' perceptions about EMI are not homogeneous. One has to agree with Dearden (2014) who, in her large scale study on growing phenomenon of EMI, asserts that "public opinion is not wholeheartedly" in support of EMI" (p. 2), but rather confused. These controversies can be caused by the challenges of EMI, which will be explored in greater detail in the next section.

### **Stakeholders' Challenges in EMI Programs in Higher Education**

In this section, students' academic and language challenges and other stakeholders' difficulties in EMI program are discussed. There is a consensus among researchers that there are challenges for all university stakeholders of in EMI environment. Although challenges are different in every group of stakeholders, they are interrelated, so, challenges of administrative and teaching staff may lead to the delay of students' adjustment to EMI academic environment. However, it is worth mentioning that among all universities' stakeholders, students, in fact, are the ones who are most vulnerable in EMI environment since it is challenging for students to learn and perform in a foreign language due to the lack of language proficiency (Jimenez-Munoz, 2015).

To begin with, Arantegui et al (as cited in Cots, 2013, p. 114) conducted a survey with 339 students and 33 instructors at University of Lleida, where participants stated that they were not prepared enough to study in English. Other scholars Hu and Lei (2014), in their case study interviewing 10 students and 5 teachers, added that students have difficulties with the content and specialist terms in English that might complicate academic life.

To look at the challenges deeper, Byun et al. (2011) conducted in-depth case study in a Korean university (using documents analysis, student-opinion surveys on EMI's effectiveness, focus group discussions with students and professors, various published statistics and reviews on EMI effectiveness) to describe the effects of EMI on an institutional level. Through semi-structured interviews it was revealed that there is "lack of much-needed support system available for instructors to conduct EMI classes" (p. 447). Results of a survey with 20 participants also showed that students' language proficiency did not play a major role in understanding the content, although they still wanted to improve their language, particularly listening and speaking, to better perform in EMI

program. In their study of EMI program in China, Hu and Lei (2014) exposed the same listening and speaking issues for students.

A broader perspective has been adopted in Turkey by Sert (2008) who conducted survey with 527 students and 87 lecturers, interviewing 25 EMI teachers afterwards. Interviewed lecturers responded about students' low level of English proficiency to grasp heavy workload of EMI programs. It was also noted that students had serious difficulties in transferring their knowledge from one language to another, noting that students lose their time when remembering the English terms for exams conducted in English. In the meantime, lecturers themselves were lacking experience to "create color and spirit in a foreign language" (p. 165), thus classes were not engaging. One can see that teachers may not help students to adjust to the EMI environment when they have challenges themselves in creating EMI environment. These findings by Sert (2008), Hu and Lei (2014) on students' challenges are totally supported by Yeh's (2014) survey study in six Taiwanese universities. In addition, students who participated in survey pointed out professors' accents as one more obstacle in learning process.

In the Kazakhstani context, as Oralova (2012) pointed out, EMI development in higher education in Kazakhstan is not supported by the majority of faculty members since old generation of teachers cannot even teach in English. This, in turn, leads to incapability to collaborate with international colleagues, whereas internationalization of universities requires dialog between other global universities, teachers and students.

In contrast, Hou et al. (2013) claim that there are other challenges in institutional level as well. Their study explored Taiwanese institutions' challenges in EMI program and revealed that the major challenges of EMI program in Taiwanese universities are lack of financial support and staff resources, faculty development, and curriculum design and learning support for students. They further assert that these challenges are found to be

major since they influence university academic performance and quality. Goodman (2014) has also questioned challenges of EMI but for faculty and university administration. Following up her ethnographic case study through observations and interviews with 22 students and 4 teachers Goodman (2014) found that low level of English for teaching in English, and lack of resources for teaching in English are holding back the development and promotion of EMI for teaching in HE.

### **Students' and Lecturers' Ways of Addressing Language Challenges in EMI**

#### **Academic Environment**

There is relatively small body of literature that is concerned with managing challenges in EMI programs in HE. Hu, Li, and Lei (2013) offer several steps to help students and academic staff to cope with their challenges: (a) Matriculation English Test to select eligible students; (b) "extra-sheltered intensive instruction in English" (p. 32) to improve students' level of English; (c) ensuring the quality of EMI staff; (d) pedagogical support for staff in EMI degree programs; and (e) organizations of lectures, seminars in cooperation with other universities who also provide programs in EMI. Barrios, Lopez-Gutierrez, and Lechuga (2016) claim that language challenges can also be handled if language support for students will be provided through workshops on specific academic skills, glossary and repository of textual and multimedia resources. At the same time researchers argue that these measures are not effective enough since challenges still exist for students (Hu, Li, & Lei, 2013; Hu & Lei, 2014). In addition, Yeh (2014) recommends universities administrations, policy makers and other relevant authorities to consider the ways to foster learning through "encouraging previewing course materials, asking questions in class, and seeking help from instructors or trained teaching assistants" (p. 318).

Surprisingly, Hou et al. (2013) in their mixed method study revealed the importance of professional accreditor, who might be an international university/institution partner. In the Taiwanese case, these professional accreditors contribute to the developing high educational standards, recruiting an international staff, and training its own teachers. Similar certification programs exist in Denmark practice of EMI in Higher Education where the university offers language courses for teachers on how to teach subject in English (Werther, Denver, Jensen & Mees, 2014).

In contrast, in a study of EMI programs in Japan, Chapple (2015) found out that students had their own variety of strategies for coping with academic and language challenges. Namely they are taking notes, using lecture slides, recording and listening to the lectures again, and keeping vocabulary logs. In the meantime, instructors showed their concern for local students and also tried to support them by providing translations, simpler explanations or links to readings in Japanese (Chapple, 2015).

### **International Students' Language Challenges in Academic Context in English Speaking Countries**

If an internationally co-developed university employs international practices and strives to create native English like environment, it might be suggested that international students' academic and language challenges in universities in English dominant countries will be similar to those in EMI. However, while comparing two environments, it is also worth pointing out the differences. According to Lin and Scherz (2014), international students at universities in English-dominant contexts experience academic, linguistic and cultural challenges. In fact, EMI students might have the same challenges which are extended only to the university scale, while international students' challenges are not limited to university, but to all levels of social life where they appear to be minority group.

However, this study can also explore whether EMI students have the same language challenges, since they are not reported in previous studies on EMI challenges.

There are a number of studies that researched language challenges of students who are non-native English speakers in English-dominant contexts. The linguistic challenges of international students discussed in literature are mainly are considered across four skills.

Sawir (2005) claims that speaking and writing skills are the areas where most of the international students struggle with. According to Sawir (2005), international students' social and academic problems expand to the differences in learning style, culture shock, homesickness, social difficulties, that closely relate to the problems with language and communicating in English. In fact, being less confident in their speaking skills, international students are less motivated to speak in front of native speakers (Robertson, 2000).

Rose (1985) in his work on "The Language of Exclusion: Writing Instruction at the University" states that there are usually difficulties with mechanical features of language. Brown (2008) agrees and adds that students struggle not only from lack of vocabulary and grammar knowledge, but misconception of what academic writing is becomes another challenge. Belcher's (as cited in Singh, 2015) idea clarifies that organizing academic writing in English make challenges even more difficult. Moreover, "writing styles, linguistically and culturally driven logical thinking, and appropriately formulating thought into writing structures" in English may differ extensively for international students in comparison to their L1s (Levi, Zhu & Flaitz, as cited in Lin & Scherz, 2014, p. 17).

The understanding of information both in written or spoken form appeared to be challenge as well for international students. It takes longer for international students to read and write in English (Lin & Scherz, 2014). At this point, Sawir (2005) clarifies that idioms or text interpretation might be an issue for them. Lin and Scherz (2014) conducted similar

research to Sawir's (2005) study, but interviewing groups of Asian international graduate students in the US about their challenges. According to these students, some professors speak too fast and use non-academic language that makes it difficult to understand. However, taping the lecture as well as reading in English and immersing to environment are told to be used to tackle the language difficulty.

In contrast, despite all the difficulties faced, international students in Australia interviewed by Sawir (2005) were positive about being in an English-speaking country pointing out that "having cultural knowledge and living in a second language environment contributed to success in language learning".

### **Conclusion**

Overall, reviewing the literature it was found that a lot of empirical research on EMI in higher education is concentrated on investigation of Asian countries experiences from various stakeholders' perspective (e.g., Byun et.al., 2011; Hou, et. al, 2013; Botha, 2013; Yeh, 2014; Lai, 2013 and others). There are also works from other parts of the world exploring new trend of EMI in tertiary education programs (e.g., Goodman, 2014; Costa & Coleman, 2013 and others). However, the challenges are less prominent. In contrast, as it was mentioned earlier, little research attention has focused on Kazakhstan experience, and this might be explained by the fact that Kazakhstani Higher education has less experience and only several universities are currently offering degree programs in English. Therefore, the investigation of the issue would be of importance in developing EMI in Higher Education in the country.

Interestingly, when seeking to explore the challenges, all the researchers also considered either stakeholders' attitudes and perceptions, or the ways the challenges are addressed by institutional authorities as well as reasons for growing trend of EMI program.

The same strategy is planned to be employed in this study: academic challenges of students and measures to address challenges in EMI will be investigated.

Analyzing the empirical research on challenges in EMI, it was identified that all challenges were caused by language barrier and around language skills. According to the literature, in the case of international students in English-dominant countries their academic language challenges seem to be similar to those EMI students have. Moreover, considering that the focus of the given study is international university with English dominant academic context, academic language challenges of international students in English dominant countries might find even more similarities.

Observation of research works' methodology motivates me to make the following inference: for studying the problem in EMI in Kazakhstani higher education it is possible to utilize all quantitative, qualitative and mixed method as well. However, since EMI is new concept in educational system and no research is found in Kazakhstan, it is sensible to employ qualitative study to understand phenomenon better and get in-depth data from stakeholders.

### **Chapter 3: Methodology**

#### **Introduction**

In this chapter the methodological approach of this research study is presented. The study is built upon qualitative case study research design to explore the following research question and sub-questions:

- 1) What are STEM and Social students' and teaching administrative staff perceptions on EMI?
- 2) How do STEM and Social Sciences students, and teaching-administrative staff, describe and address the students' language-oriented academic challenges in EMI programs at a Kazakhstani international university?
  - What are STEM and Social sciences students' language challenges in EMI academic environment in universities from the perspective (a) of students, (b) teaching-administrative staff?
  - How do STEM and Social sciences students overcome the language challenges in EMI academic environment in universities?
  - What is done by universities to help students to overcome the challenges in EMI programs?
  - How do stakeholders evaluate institutional policy measures on students' challenges in EMI programs?

Overall, this chapter is broken down into 6 sections. In the very first part the choice of the research design is explained and justified. Sampling strategy and the description of the participants are provided in the next part while the following section discusses research methods tools used for the inquiry. The process of data collection and its analysis are presented in the fourth part. After that, subsequent section covers the ethical issues. In the

last part through critical lens I describe my position in the study that might influence my study in some aspects.

### **Research Design**

Aiming to explore the students' challenges in EMI programs in tertiary education and university policy that addresses these challenges, a case study research design was employed for the given research. A case study research design can deliver "an intensive, holistic description and analysis of a single entity, phenomenon, or social unit" (Merriam, 2002, p. 34). Hereby, a case study allowed exploring the issues in EMI programs in a university generating the complete picture of the case in the frame of the research questions.

Consistent to case study research design, triangulation of various sources of evidence let me examine the EMI phenomenon in a university in more details (Ashley, 2012; Yin, 2014). Though having a different focus of the research, Hu, Li, and Lei (2014) employed the similar data collection sources to examine the language ideology, language management, and language practices revolving around the focal program in the Chinese university, stating that such unique characteristic of the case study research design to employ different data sources enables developing an in-depth and holistic understanding of the case.

The given inquiry employed single case study approach since there are enough different categories within one site. Therefore, in the case of the international university I aimed to describe the language issues of EMI students, explain and illustrate them with an evaluation as case study allows it.

### **Site and Sampling**

In this section the rationale for the site and selected sample population is discussed. The research on STEM and social sciences students' language-oriented academic

challenges in EMI programs was conducted in one of the international universities in Kazakhstan.

Speaking of its internationalization history, as it was mentioned in introduction chapter, the university is internationally co-developed. In addition, the university employs English as language of instruction only. The faculty staff members are international or at least have international working or educational experiences; therefore, students are less exposed to communicate with staff in local languages than at local universities. It also provides access to international resources that is again fostering immersion to English environment. Considering these characteristics, its environment might be described as native-like, as if the university was pulled out from English-dominant country.

The choice of this international university is justified by variance of majors it encompasses allowing to gather data from undergraduate from different faculties. In fact, it has three main departments, two of which are STEM related schools (engineering and sciences and technology), and one represents a department for social sciences studies. The importance of conducting research in international university can be evidenced by the fact that its practices are to be translated to other state institutions.

Typically for any qualitative research and case study (Yin, 2014) the purposeful sampling, where a researcher selects participants and sites to study and understand the central phenomenon (Creswell, 2014) and focuses on specific and unique issues or cases (Teddie & Yu, as cited in Cohen, Manion, Marrison, 2011), was used for selecting students and teaching-administrative staff for focus group and in-depth interviews. Although purposefully selected participants may not be generalizable, they can give in-depth information on the issue (Cohen, Manion, Marrison, 2011), which is the target of the given inquiry. In fact, having different groups of stakeholders gave information not just about what students think and feel about, but also let us to look in-depth on students' challenges

in EMI program in university from the perspective of teaching-administrative staff and learn about their awareness.

To begin with, purposefully only first and senior year students from STEM and Social Science majors took part in the study. The rationale for having students of different years of study is that the former ones gave information about challenges and attitudes through the lens of inexperienced students while last ones reflected on challenges which they overcame or still face. At the same time, interviewing students from various majors allowed to look at the students' challenges in EMI programs and to compare their needs across subjects.

For teaching-administrative staff category, who provided the data from their perspectives, I determined the potential participants according to certain characteristics. Firstly, participants fell under the purposeful sub-sampling strategy, which is typical - they needed to be familiar with the case (Creswell, 2014). Accordingly, the duration of work was considered since new comers would not be able to reflect on topic as much as experienced ones. Therefore, in order to get about profound data on students' language challenges faculty members with at least on year of experience were selected from each school. Indeed, these participants were also selected according to their role in EMI programs in universities: they worked directly in the program with the sampling students and had both teaching and administrative responsibilities; thus one's interview answers went beyond one person's experience, but expanded to the whole faculty. Yet, as faculty members from schools could give information only from the perspectives of the departments they work, one more administrative staff member from university level was chosen for interview to learn about the issue at the university scale.

## **Research Methods**

Semi-structured interviews and focus groups were employed as tools for data collection. As structured interviews would not allow exploring newly emerged themes during the focus group interviews and in-depth interviews, the interview protocol was semi-structured and guided by questions about the students' attitudes toward EMI program, academic challenges in the program as well as the ways to overcome them. In fact, semi-structured interviews are more advantageous among other instruments in terms of providing in-depth data (Cohen, Manion, & Morrison, 2011), and personal experience. Besides, interviews are used when a researcher cannot directly observe the site and participants (Creswell, 2014). Hence, through interviews with teaching staff and university administration I accessed in-depth data on students' challenges in EMI.

While the semi-structured individual interviews allowed to get into the details of an individual's perspective, the focus groups are effective in capturing the extensive and profound views because, exchanging information with each other, the focus group members can shed the light on the issues and topics that may otherwise be left undiscovered (Berg, 2001). Besides, the focus groups interviews contribute to the "discovering the collective perspective, the synthesis and validation of ideas and concepts" and provide access to the ideas of more participants consuming less time (Halcomb, as cited in Gibbs, 2012, p. 187). Therefore, focus group interviews were chosen as best to answer the research question of the given study since students' issues are the main target in research question and it is essential to focus on breadth and depth of students' views on their academic challenges and the way how to deal with these challenges. However, due to the fact that data collection time overlapped with final examinations I could not attract as many students to the focus group as I needed. Overall number of interviews and focus groups conducted will be explained further in the data collection procedures.

### **Data Collection Procedures**

I started my data collection in the end of November and finished in the mid December. Overall, it took two weeks to gather information from participants.

As planned in the methodology part of ethics application, first, four in-depth interviews with teaching-administrative staff members were interviewed (3 interviews with adm/teaching staff from three schools and one interview with administration staff at university level). There were no challenges when conducting interviews with teachers. Having examined preliminary information on the website, I found and emailed potential participants. Once they agreed, we set a time and place for interview. In interviews, all participants of interviews shared relevant data for the research questions. The relevance was checked through comparing themes emerged in interview with themes from literature review and considering characteristics of a university and country.

Yet, the data from students were gained from sample that differs from initially planned one. Initially it was planned to conduct focus group interviews with representatives of first and senior year students of social sciences, engineering and science and technology faculties making up six focus group interviews with students overall. However, instead of six focus groups, only five in-depth interviews with first-year and senior year students from three different schools and 1 focus group interview with first year science students and one additional interview with two freshman engineering students were conducted. Overall, seven student participants were interviewed and four students participated in a focus group.

The reason for deviation from plans is that students from the research site had started their final examinations far more earlier than I expected and by the time I started to collect data most of them either were already at home or were still having their final exams. First, to get students for interviews, I emailed students using 'bcc' and send kind

reminds about it for about two times. Since I still could not get enough participants, I also asked a friend for help to spread 'the call for students' among students from 1 year and freshmen years. All in all, I managed to have at least an in-depth interview with one representative from each school and year of study. In Table 1 one can find what was planned and what was actually done.

Table 1

*Interviews and Focus Groups with Students: Planned and Conducted*

School/year of study		Planned	Conducted
Department #1-STEM school	1-year students	1 focus group for each category	1 in-depth interview with student (member of student council-1 <sup>st</sup> year students representative) 1 interview with 2 students
	4-year students		1 in-depth interview with student (member of student council-senior students representative)
Department #2-STEM school	1-year students		1 focus group with 4 students
	4-year students		1 in-depth interview with student
Department #3-social sciences school	1-year students		1 in-depth interview with student
	4-year students		1 in-depth interview with student

In fact, collecting data from students was more challenging than from teaching-administrative staff. When I first approached faculty administrations to give students' emails, they requested a letter of support from Nazarbayev University Graduate School of Education since, as I was told, emails are confidential. Therefore, I got permission to distribute emails only after I gave them a copy of support letter.

Based on information I gathered, for now I cannot say that focus group interview provided me better data than I got from in-depth interview. It is also not true for in-depth interview in relation to focus group. It varies from case to case. One more point to mention is that I was lucky to have in-depth interviews with two students' representatives from student councils, so they were familiar with most of the challenges of their peers.

**Data Analysis**

The process of data analysis in a case study starts from scrutinizing the gathered information, developing themes and coding followed by a within case-study analysis (Creswell, 2014). So, organizing the data and transcribing interviews followed by the factual process of analyzing the data which consist of several steps.

To begin with, once data collection was over, interviews were transcribed. Having transcribed some data manually, later the transcribing process was facilitated by using two software programs: "Listen & Write", and voice typing in Online Google Document. Prior to the second stage of coding and having read the interviews for several times, I elicited some major themes which came out from interviews, literature review and interview protocol. In fact, for qualitative data as well as case study research the process of coding and developing themes can be done manually or facilitated by using NVivo which is computer-assistant qualitative data analysis software (Yin, 2014) and which is good for "rapid coding, thorough exploration and rigorous management and analysis" (Creswell, 2014, p. 267 ). Yet, having only four in-depth interviews with faculty members and seven in-depth interviews and one focus group with students, the data analysis was done manually as there were manageable amount of data for manual analysis. Codes from interviews were highlighted and some excerpts were pulled out to use as quotes that best describe the theme. Based on preliminary list of themes, each code in each interview was allocated under category in the thematic scheme. Having distributed codes, those that were similar were grouped into one sub-category.

**Ethical Considerations**

Any research involving individuals or information about them should deal with specific ethical consideration to prevent threat to their identities by keeping their anonymity and providing confidentiality (Yin, 2014). In this regard, the data for the study

were collected in accordance with ethical principles. Going through the NUGSE Research Ethics Approval process, I got reviewed consent forms for participants (see Appendix A, B, C, D) and interview protocols (see appendix E, F) and was granted by approval to conduct the study by research ethics committee. Therefore, considering that the given research would deal with institutions, their people and information gathered from them and about them, as stated in ethics forms, the names were changed in the data and coded in findings and, more importantly, discussed in a way to avoid identification.

Yet, the most vulnerable part of the given study in term of ethics was providing confidentiality and anonymity to focus group participants. Although, the topic of students' academic challenges in EMI program and institutional measures addressed to challenges seems not to cover any threatening questions, still there is possibility of causing harms within students of one focus group. Therefore, when conducting focus group interviews, students were notified that they did not have to answer the question, if the felt uncomfortable. Yet, I had only one focus group interview since five focus group interviews were changes into in-depth interviews with a representative of one group. To keep anonymity the names of focus group participants were changed in transcription of interview.

### **How I Positioned Myself in the Study**

Throughout the conducted thesis research, including data collection and its analysis, I acknowledged my position as a student, as a person who has direct connection to the site, and as a specialist in multilingual education.

To begin with, the fact that I was a student of EMI university facilitated the way I accessed to the site, teaching-administrative staff and students since students treated to me as if I was their counterpart, and faculty view me as if I was their student. Therefore, participants were open to assist my research and share their experiences, which can be seen

in extended answers they provided in interviews (see Appendix G). Also, students and teaching-administrative staff felt easy to explain concepts and problems as they know that I have similar issues being student of EMI university and was aware of many issues.

However, having awareness of students' challenges in this university, English language teaching experience and theoretical knowledge on the issue also influenced the way I interviewed participants. Instinctively I expected to hear about the challenges that I had myself or learnt from literature. Yet, I believe that guiding questions made me to be focused on the research questions and to not discuss off topic issues.

### **Conclusion**

To conclude, in the given chapter the methodological rationales were presented. The comprehensive description and justification of each step in methodology part guides through the entire process of how the research was carried out. The data that were gathered considering all-mentioned methodological rationales are presented in the next section of present study.

### **Chapter 4: Data Analysis and Findings**

The present chapter presents the analysis and interpretation of the data on STEM and Social Science students' perceptions of EMI and language challenges in EMI academic context in a Kazakhstani international university as well as the ways they are addressed. The data were gathered through the in-depth interviews with teaching-administrative staff and individual and group interviews with first year and senior students of different majors, namely social sciences, engineering, and natural science.

The findings chapter is presented according to the language four skills framework. In accordance with the given strategy, firstly, the chapter presents students' reasons and perceptions of studying in EMI program. Then, EMI students' academic challenges in STEM and Social Sciences program are described in detailed manner. The data on the ways these challenges are addressed by students and teaching staff and university as whole follow next. The findings chapter also leaves space for interviewed participants' suggestions on EMI program optimization for students. Finally, the chapter concludes with a summary of main findings of students' academic challenges in EMI program.

#### **Students' and Teaching-Administrative Staff Perceptions on EMI**

This section discusses how students and teaching and administrative staff perceive EMI. To explore participants' perception, participants were asked about the advantages and disadvantages that students experience when studying in English. Not surprisingly, interviewed professors and their students were positive about EMI, though some of them conveyed drawbacks that it can have.

Among all incentives for EMI, all interviewed students and teachers acknowledged international career opportunities that specialists with English proficiency can have. According to senior students, graduates from EMI universities in Kazakhstan will gain access in international arena not only when getting a job but when applying to further

education as well. A senior engineering student elaborated on her choice of EMI and stated that she had already known the language and, therefore, she also wanted to get technical major as bonus in her CV saying that “technical specialist with English proficiency would be in more demand in labour market”. By saying that, she showed that knowing both the language and STEM subjects determined her choice to study science in English.

When it comes to benefits during the learning process, as all participants reported, students' positive perceptions towards EMI are guided by availability of immense resources in English over the world. The dominance of resources in English can be related to the fact pointed out by two staff members and all first year students also that nowadays English is not only global language, but believed to be a universal language of science. At this point, first year students of science and technology school in a focus group interview agreed with their peer, a student majoring in biology, who stated:

The thing is that, as it is said, there is more information in English, more sources... and English is easier at some point than Russian. It is easier to learn English, thus, information is easier perceived in English... since in Russian all used terminologies are complicated while in English the meaning of the word coincides with what the word is (STEM 1<sup>st</sup> year student, translation from Russian to English from audio file, 4 December 2016).

As can be seen, EMI or learning through English is perceived as an advantage in terms of being primary language of science and terminology in the world as well. One can also understand that English is given a higher status here than Russian. Similarly, remarkable example was brought by first year engineering student who noted that if he had to choose a physics book in Kazakh or in English, he would choose in English because Kazakh language is not as much developed as English and makes things complicated to understand.

Having analyzed both responses, one can say the students believe that English is advantageous for learning sciences.

Surprisingly, EMI programs also attracted students by being more advanced in comparison to traditional way of teaching in state universities with Kazakh or Russian medium of instructions. Both STEM and social sciences students declared that EMI programs provide knowledge of higher quality because it is not easy as in non-EMI state universities. For example, first year engineering students shared that their friends from non-EMI state universities do not study hard during the semester, but in final, which is enough to get an "A", while these EMI students would get a failing grade if they did so. Another senior student from social science department pointed out that if learning process in EMI and non-EMI universities differed only in language, she would choose to go abroad for education. The findings indicate that EMI education is perceived not only as education in English, but as international education of high quality. One can conclude that the perception about the concept of EMI is linked to the concept of quality in internationalization. However, the way EMI program is designed might differ in universities.

In contrast, two interviewed teachers who were non-native speakers of English informed about the 'adjustment issues' for graduates from an EMI university at the local labor market. The adjustment issues were explained by the fact that knowledge and experience gained in English can be difficult to apply where English is not working language. First year engineering students agreed with this statement and one of them in focus group added that it also detrimental for the development of the Kazakh language because they use only English terminologies in their Kazakh speech. Thus, as he said, Kazakh science language will not develop, remaining the "language of nomads". It is worth noting that while others spoke Russian, this student was the only one interviewed in

Kazakh. His choice of the language of interview may indicate his attitude towards the language.

Overall, drawing a picture from participants' responses, one can see that the role of English in global arena is leading interviewees' perceptions, even though there are some pitfalls at the local level.

### **Students' Language -Oriented Academic Challenges in STEM and Social Sciences Programs**

According to one of the institutional research studies conducted in research site there are sharp disagreement between students' grade expectations and reality. Although, researchers interpreted that a reason could be in the amount and quality of work or psychological pressure from high university demand, there is one more reason that might lead to this controversy in expectations and reality. Challenges in studying in non-native language, i.e. in EMI environment, might be resulting in low performance of students. As an example, one of STEM professors responded that any time when studying in non-native language, students put extra effort for learning one topic which otherwise could have been used to learn other new things.

In contrast, when participants were asked to share with their experience on students' academic challenges in EMI programs, overall they were much concerned not about language but the subject. For example, a 1<sup>st</sup> year science student shared in a focus group interview:

...Just the majority students try to not pay attention on them [author: on language challenges] – there is a problem and nothing supernatural will happen from this problem. That is, they focused more on core subjects while English is not so serious problem since you can always check it (STEM 1<sup>st</sup> year student, translation from Russian to English from audio file, 4<sup>th</sup> December 2016).

For students, course content is more important and challenging at the same time in comparison to language issues. Yet, from interviews with students as well as teaching and administrative staff academic challenges with EMI were recorded. In fact, students sometimes see all challenges as content issue while most of them are framed by language.

**EMI students' academic challenges with writing.** To begin with, writing is reported to be a major challenge for students of all majors. However, the degree of the challenge differs in STEM and Social Sciences School and years of studying.

While a social sciences 1<sup>st</sup> year student stated that he and his peers struggle with essay structure and grammar of English language, STEM students reported having deeper issues with papers. Surprisingly, a senior engineering student reported that their English writing skills in the department have decreased over the 4-year period. STEM students, including science and engineering students, explained that they only write laboratory reports which do not require much of writing skills. Since they do not extensively use their pre-existing writing abilities and have report structure templates to use, their writing skills do not develop or even decrease. A senior student from engineering department worried about it and gave an example of her friend:

I have a friend who had IELTS [author: International English Language Test System] score 8 when he got into university. He passed the test again recently and got only 7. So, he had an 8 before entering to the university and now [author: after 4 years of studying in EMI] he has only 7. His language skills decreased. It is so because we do not have anything that develops our skills (STEM senior year student, translation from Russian to English from audio file, 5<sup>th</sup> December 2016).

As can be seen, student's IELTS results after 5 years studying in English did not even remain the same, but decreased. It is worth adding that a senior social science student

shared that her results increased. Yet, reliability of the test must be determined in order to claim that the Engineering faculty does not develop students' language skills.

In addition, science and technology students say they lose and do not develop their vocabulary which might be another factor of drop in IELTS score of some students. A senior engineering student clarifies that they ended up with limited vocabulary which is engineering-oriented only, yet, they write more accurately in terms of grammar and structure now. Faculty and university are aware of the problem, saying that they probably are not requiring much of the writing, although one of STEM faculty member commented:

I wouldn't say that there is special challenge. It is... yes, we don't need to write as much as [social science students]... because here we are dealing mainly with numbers and figures. It is easier sort of... At the same time it is still English speaking, English writing skills, especially writing because they need to write a lot of reports and also, listening probably is not that crucial because in Engineering we have number, formulas. It is not that difficult in my opinion... You see, you need to write. You have done something and you need to explain and describe what you have done (Staff member #3, 28<sup>th</sup> November, 2017).

According to this quote, the engineering professor believed that it is not challenging for STEM students to write in the scope of their courses. One can understand that writing of STEM students is much easier than of social science students, although the importance of writing is still there for them.

Interestingly, while first year engineering students still have difficulties in understanding how to write reports, senior students of the same major suffer in writing motivational letters in English and other papers that require extensive English writing skills. Although engineering students advance their skills in STEM related writings over four year period, they do not practice and develop writing in genres other than STEM's

one. However, this might not be a problem of only STEM students. A teaching-administrative staff member from the Social Sciences Department stated:

You know, writing is tough. I have to say somebody who isn't writing in one language cannot do that in other languages. That means somebody who struggles with writing, will continue. You know writing is a skill that, in my experience, every university student has to learn regardless of their language. It is a new way of writing. Our students also come from different educational traditions and they are looking at new kinds of expectations. So, I see that our students they are trying to juggle so many expectations: language, culture of communication, analytical skills. I think sometimes where they sit down in front of paper, they just don't know where to start, and they just don't know which part of the data to try to focus right now (Staff member #2, 25<sup>th</sup> November 2017).

That means the writing challenge primarily is not a problem in EMI, but a challenge that is rooted to native language writing skills. The challenge is triggered when students are introduced to a new way of writing, analytical writing. The problem gets even worse if students have lack of language knowledge because as one of the interviewed teachers shared: "...if you also are trying to be able to learn how to use articles, or prepositions, or something else, then... you have some sort of mental barrier do it all".

To sum up, writing is reported to be a burdening issue for both students and teaching-administrative staff. However, the perceived nature of the challenges differs with students' majors.

**STEM and social sciences students' challenges of speaking in EMI environment.** Speaking is considered to be the second common issue in academic context among students. However, similarly as writing challenges, the problems with speaking have different perceptions and nature across the departments.

STEM students reported that the language they use in speaking as well as in writing is scientific but not the one they would use in everyday life for communication with peers, professors and other English speakers. Hence, in social interaction they fail to build a simple conversation on a simple topic in English. In addition, STEM students informed that it is the scarcity of interaction with faculty that influences negatively on their speaking skills. This was emphasized in interviews with STEM students who described lectures as one-way communication process with more than sixty students and where only lecturers speak. On top of that, a freshman student of the engineering department added:

The thing is that some students spend a bit more time learning new terms and words... I think it is quite difficult to develop speaking in such conditions and I didn't mention that anyone developed it, I mean, speaking skills (STEM 1<sup>st</sup> year student, translation from Russian to English from audio file, 2<sup>nd</sup> December 2017).

This quote indicates that, while learning and gaining technical terms and other vocabulary, students were not capable to improve speaking.

Besides, a senior engineering student added that even after four years of studying in EMI environment she sometimes feel nervous and stutters when speaking with professors. The teaching and administrative staff admitted that these challenges related to speaking might be reflected in challenges when communicating. For instance, one science and technology professor shared: "going through that threshold of presenting yourself and saying 'hey, I need help. I have a problem' - for the majority of undergraduate students it is not an easy process".

Students from social sciences were less concerned about speaking because they had seminar classes where they needed to discuss and present ideas in front class. However, as 1<sup>st</sup> year sociology student stated, students are afraid to sound awkward and may not be able

to express their ideas accurately in English. Yet, a senior economics student added that their speaking skills develop in the four-year time period.

In contrast, making presentations in front of the audience was not a difficult issue for both first and senior students of all majors, since they have been practicing it a lot when presenting group works and individual projects. Nevertheless, the problem occurred for one 1<sup>st</sup> year social science student who reported that he did not know how to make the structure of the presentation.

Surprisingly, both students and teachers claimed that Russian-dominant environment is an obstacle that holds back total immersion to English-speaking environment. According to STEM professor, in the hierarchy of languages of the university, although Kazakh is in the last order, Russian still dominates English. However, all students confirmed that it would be easier for them and their peers to express themselves in Russian or Kazakh during the class discussions. An engineering freshman shared:

Some Russian speaking teachers sometimes allow asking questions in Russian, but I don't think that it is academic... It helps them in learning, particularly to understand, for example, to get the topic, but it doesn't develop their English language (STEM 1<sup>st</sup> year student, translation from Russian to English from audio file, 2<sup>nd</sup> December 2017).

As can be seen, even the rare use of Russian is not welcomed, although it can ease accessing the content. Moreover, similar to words of the senior engineering student, he also complained about the absence of English language progress in the department.

Overall, social science students tend to have speaking barrier and have difficulties in expressing their arguments in English in the beginning of their studies while STEM students are mostly not given a chance to practice and develop language in class which

may result in students' fear to approach to professors. Although the use of Kazakh and Russian would make the learning process easier, it would negatively influence on developing students' English language.

**Language challenges of STEM and social sciences students with listening and reading skills.** Although students did not complain in general about their listening and reading challenges, some of them reported on factors that makes listening and reading comprehension more difficult. One of the apparent listening challenges for STEM students was an understanding of professors' accents as they were not always native speakers. The students said that they even missed classes which were difficult to comprehend and not important to attend.

An interesting point was raised by STEM student who gave an insightful view to the issue listening and language overall:

I would note that some professors from Asian countries have cultural peculiarity to build sentences in a different way. That means, in Chinese they are considered as correct sentences, but if they are translated to English literally, the sentences lose their meaning or become difficult to understand. So, their English differ a lot due to this cultural barrier... as well as accent ... I am not speaking about all professors, but there are some... And it is very difficult for us to understand them (STEM senior student, 6<sup>th</sup> December 2017).

As can be seen, professors' L1 influence not only accent, but the way he or she delivers a lecture, and structures a sentence. Chinese professors are said to build a sentence in English relying on Chinese sentence structure making it even more difficult to understand.

Unlike STEM students, professors do not consider listening as a major problem and one of the STEM teachers and administrative staff even said: "in engineering listening is not that crucial since they are dealing mainly with numbers and figures". Yet, a faculty

member of social sciences department added that the speed of native speakers' speech might be a challenge as well, although social sciences students have not mention any specific problem with listening.

In contrast, almost all students believed that reading is not that challenging in comparison to other skills. However, two out of four interviewed staff members had opposite understanding. A university administration member stated that to get a deep meaning of text is sometimes difficult in non-native language while a social sciences professor was concerned about students' effective reading which he explained as reading for quality, not for quantity. On this point, only 1<sup>st</sup> year social sciences student responded that students need to learn critical reading skills, which is critical analysis of sources, not just reading.

Overall, from interviews with students and teaching-administrative staff it became clear that both stakeholders are aware of most of the challenges with reading and listening. However, they have different perception about it. Students were more concerned about listening problem, while professors believed that reading is more challenging rather than listening.

### **Addressing STEM and Social Sciences Students' Language Challenges in EMI Academic Environment**

In order to explore how students' academic challenges are addressed, I asked respondents to share their experience on dealing with them. Two main types of measures to cope with academic challenges in EMI were interconnected: how students address them themselves, and how professors and university support and help students in coping with academic challenges in EMI. As was analyzed, self-motivation, adaptation, immersion to artificial English environment and student clubs were listed as addressing challenges without professors' involvement. It was also said that office hours and writing center for

getting instructors' feedback on paper drafts along with new vocabulary learning strategies, Power-points for reading were support that professors provide for students.

To begin with, one of the most important factors in addressing the challenges is self-motivation. Students stated that in order succeed in the university one should work hard, proactively, seek help and try to understand by their own. Similarly, administrative staff member showed the same point of view, saying it is important that students are doing things with right spirit and not seeking shortcuts.

Although all interviewed students reported that they just get used to the listening academic challenges, e.g., accent of professors, only professor of social sciences and humanities faculty stated that their staff are aware of issues with accent and speed of speech and they even try to slow down their speech when giving a lecture. All students admitted that watching movies or any TV programs in English and reading in English can help to create artificial English environment at non-learning hours, thus, fostering the process of adjustment. Professors agreed that this method is good for improving English and immersing to EMI environment. For instance, a Science and Technology faculty member stated:

If you have a problem with language, for instance, make it point to read a newspaper, to read a magazine, to do certain activities that require your language skills, to immerse yourself to the extent possible amounts to the culture of English, and now the internet can provide thousands of different sources that one can use, but they have to put their work, language and communication it is not something that is done automatically, you have to put you effort (Staff member #4, 2<sup>nd</sup> December 2017).

Practicing language all the time was highlighted as an effective way to adjust to EMI which means reducing the use of Russian, obviously. Also, this professor added that they

try to monitor students' use of English and do not allow Russian in class, thus expanding the use of English by students. However, this practice seemed to be not enough to make students use only English.

Students and teachers admitted that students might refer to their peers to improve their work or at least give some kind of feedback. Senior students and professors organized some sort of mentorship and clubs such as English-speaking Club, Peer-advising Center, and Academic Support Club that had an idea to support younger students in addressing their academic difficulties, although none of the students I interviewed reported to use these services. Yet, they shared that clubs work successfully and can provide any help with explaining assignments and checking their papers on not only content, but language as well. On this point, a staff member of social sciences and humanities faculty stated that professors from the social sciences school work together on students' issues and organize informative sessions and workshops for them. For example, they were currently working on the issue of students' skills of note taking as well as other issues that could foster understanding of lectures and planning to organize workshop. At the same time, peer-support is reported to be not conducted among students when they do individual work, but practiced a lot when completing group work.

The most popular approach to overcoming the writing challenges is consulting the writing center that university provides. Students use the center to get their various pieces of writing polished. Prior to final submission for the course they prepare drafts and get feedback from the writing center. However, a representative from the university administration considers multiple checks of writing as an unhealthy practice:

...I think our students love various types of shortcuts, who will give professors many drafts for multiple edits and will give drafts to other people or use internet sources... you know the mechanisms.... I had a lot of Arab students in the UK who

gave me many-many drafts of the same piece of work... it gets to the point that we actually write it ourselves. Now, obviously, giving drafts is a good thing, but not giving drafts every two days, yeah? Or putting it through translation system, or to electronic mechanisms, or giving it to other people outside the university (Staff member #1, 18<sup>th</sup> November 2017).

The quote indicates that the solution to the problem might cause another issue.

Nevertheless, some first year students from STEM faculties are not even aware that they can actually use the services of writing center for their assignments. They believe that only students from humanities majors can refer to them for help because of the center allocation in the faculty of social sciences, where students write a lot and produce complex papers. In fact, university administration was aware of the need to advertise the center to students of all majors.

Professors can provide a lot of support for students with challenges in EMI programs. As students reported, vocabulary and terminology learning strategies explained by professors were very helpful to keep up with course requirements since they do not have to spend time to explore new words and terms by their own.

Professors of social sciences school also admitted that there is even a strategy of assigning readings to students:

So, the amount of assigned reading I could give students really, if I want them to read effectively I could give students really less than I might which means again that it might not cover quite as much (Staff member #2, 25<sup>th</sup> November 2017).

From this quote it can be seen that professors' awareness of possible reading challenge and their concern about quality reading is kind of support for students.

PowerPoint presentations prepared by professors are also found to be supporting. Students claimed that when something is not clear in long chapters of the book, these

presentations are good to understand the concept and even helpful for preparation to the final exams. However, office hours with professors, advisors or tutors were considered to be the most effective way to support students. So, one of the participants who was senior student and students' representative of the school claimed:

Actually, any student has his or her academic advisor, who is a native speaker [author: not local] for sure. And in fact, we are working on making meeting with advisors compulsory since now it depends on professors and students... In fact, if you go and communicate with him or her, it would be improvement of your speaking skills; as you are talking, you will learn what is difficult for you, where you cannot express yourself. And back at home, you look at the words or expressions you did not know in order to be not ashamed next time. Or you even can ask professor or advisor about their experience because they as well had the issues when studying in English (STEM senior student, translation from Russian to English from audio file, 5<sup>th</sup> December 2017).

According to this quote, professors can help in many ways. They can share their experiences on addressing the challenges, help students to practice speaking skills, besides that they can give some ideas to write a paper. In fact, most of the students expressed that office hours with professors can shed light on many difficulties with assignments, although the allocated time for office hours is said to be not enough since there are too many students willing to consult with too many questions.

**University support for students in addressing their language challenges EMI academic context.** All professors and administrative staff as well said that language support which they provide is not enough, although they try to address all students' needs. Interestingly, some students believed that their challenges with English is not a problem of

the university, but their own, since university made everything for them to improve their English in foundation year.

To be precise, the university provides extended support for students in addressing their challenges with English, though not all students and professors are aware of them. The professors stated that they solve half of the problem by accepting only the best students with good IELTS scores, which are different for each major, with high academic school performance and test results.

In addition, the crucial role of foundation year for undergraduate students was also pointed out by all participants. Students and teaching-administrative staff admitted that the preparation year helped to gain some academic skills in English language such as effective reading (skimming, scanning), writing reports, and speaking.

The library is also a good source that helps students to cope with their academic challenges. Yet, only students stated that it not only provides resources but organizes some workshops on how to conduct research and how to use library sources effectively for research.

In contrast, none of the teaching staff or students mentioned the role of partner university in helping with language issues in EMI university. Interviewed administrative staff representative, however, shared that they also discuss and get support from university partner in addressing the issue of English. As was shared, the support was received in the form of suggestions, sharing experiences on how improve English through the curriculum.

#### **Stakeholders' suggestions on addressing EMI academic challenges of students.**

When interviewees were asked about their perspectives on how the challenges need to be addressed, they proposed the following as necessary. Students reported that they would want to have more time allocated for office hours since they want to have more interaction with professors. Another suggestion proposed by first year students was making lectures

more interactive, so that students could be involved to the lesson actively. Some students and professors shared an idea of having a big writing center for all students where they can get assistance with any writings.

### **List of findings**

Based on the research question of the study, the findings from interviews with teaching-administrative staff and their students lead me to make the following inferences.

1. Students are positive about studying in EMI university, and their language challenges in academic context cannot suppress the advantages that being a specialist from EMI university can bring. International career and educational opportunities are dominating rationale for choosing to study in EMI program along with availability of sources in English that makes learning easier and is a sign of English as a global language. Students also choose EMI programs because EMI programs are perceived to be internationally designed with new approach to learning process.

2. Although, some students and staff members were concerned about language adjustment problems at workplaces after graduation, only staff members added that the students might not be able to cover as much content as they could in their native languages. More importantly, engineering students added that by learning in English they put in danger the development of scientific Kazakh language.

3. Overall, the academic challenges framed by language extend across four skills:

a. Writing and speaking (productive skills) are found to be the most difficult part for both STEM and Social Sciences students. However, STEM and Social Sciences students had different nature of speaking and writing challenges. STEM students complained that they keep producing poor language in terms of vocabulary and complexity writing structure and style while social science students said to have problems with structure and grammar only which have tendency to increase by the fourth year of education.

b. Although it was reported that it is easier for students to present ideas in Russian/Kazakh, Russian is said to be negative factor in creating English only environment.

c. Professors' language is a reason for students' listening challenges. Yet, students claim to get used to their accent and the way of speaking.

d. Majority students and STEM professors did not reported reading as a challenging skill. However, one student and other two staff members claimed that reading is more than just understanding what is written. According to them, students need to develop critical reading skills to get deep meaning of the text.

4. The major support that professors can provide to students is communication and office hours since office hours are described as a space where they can practice not only speaking but get advice for writing as well. Therefore, increasing the number of office hours with professors is suggested to be a solution for their speaking and writing issues. Expanding the writing center to university scale was believed to be another good support in managing writing challenges.

5. The university plays a crucial role in addressing students' academic challenges since it has appropriate entrance language requirements, organizes university preparatory program that scaffold students during the year, provides library service that facilitates learning in English, and cooperate with partners to create better support for students' language challenges. The writing center in one of the departments has been described as a successful practice in providing language support for students.

To conclude, this chapter presented data analysis on the main research question of the study which is students' academic challenges framed by language in EMI university. In the next chapter these findings will be discussed in respect to the literature.

### **Chapter 5: Discussion**

This chapter discusses the findings presented in the previous chapter in relation to the literature that formed the basis of the given study. Teaching-administrative staff and students were interviewed to explore STEM and Social Science students' perceptions about EMI, and how teaching-administrative staff and students describe and address the latter's language-oriented academic challenges in EMI international university.

The discussion chapter is organized based on the research questions. First, in accordance with the first research question students' perceptions about EMI are discussed with the literature. Then, the chapter focuses on the second research question and presents the analysis of students' academic and language challenges in EMI programs found in the present research and literature. Students' and teaching-administrative staff experiences of addressing students' language-oriented academic challenges according to this study and other research findings follow next. The chapter concludes with the overview of research questions and results.

#### **Students' Perceptions about EMI and Reasons to Choose EMI**

Interviews with both teaching-administrative staff and STEM and Social Sciences students indicated that they generally have positive perceptions about studying in EMI program, and that students' language challenges in academic context do not outweigh the advantages of becoming a specialist with English proficiency. The students justified their positive views based on the perceived availability of international career and educational opportunities. Moreover, it has also been revealed that students found English-taught program as even more beneficial because there are more academic sources in English available in the world rather than in other languages. In fact, the results of this study are concurrent with the idea that students' positive perceptions about and reasons for choosing EMI are instrumental – for academic and professional purposes (Ibrahim, 2001).

As was mentioned earlier, international career opportunities is not unique, as it is quite a dominant reason for developing positive perception about and for choosing English as a medium of instruction in other studies (Byun et al. 2011; Hou et al., 2013; Yeh, 2014). When it comes to educational prospects reported by participants, the influential role of English in getting education built up prevailing positive perception of Chinese students along with career goals (Hu, Li and Lei, 2014). This shows that the literature and findings confirm the existing association between English and the success in the international level (see also Sert, 2008).

One can also see that while EMI is one of the tools or elements of internationalization of higher education (Altbach & Knight, 2007), from personal perspective English can be considered as a tool for internationalization of career and educational opportunities and an access to the global opportunities. Hence, there is cyclic process and interplay between the concepts of EMI, internationalization, and globalization which justifies that globalization affects the use of English and EMI for internationalization, and internationalization, in its turn, fosters globalization through English and EMI.

In fact, as it was highlighted in Mazhitaeyva, Smagulova, and Tuleouva's (2012) report about multilingual education in Kazakhstan, one of the ideas of providing education in three languages is to produce competitive specialists for international and local market. That means all three groups, namely students, institution, and educational system of Kazakhstan, seem to have a clear or similar understanding of this policy reform by sharing the same goal.

Although it may seem that students' perceptions and motivations are aligned with the overall objectives of the multilingual education policy in Kazakhstan, it is important to consider that "some of the perceived benefits of English proficiency might be imagined

and that even if other benefits were real, they were only available to a small elite” (Hu, Li, & Lei, 2014, p. 28). In fact, as reported by Goodman (2013) in her study of language ecology at Ukrainian university, students studying in English and believing in its impact on their future career success may not even have clear career goals. Therefore, it can be said that students' choice of EMI program is guided by their imagined positive perceptions of successful international career. This, in turn, might be based on ‘not so true’ anecdotal statistical data or unique stories of people with successful careers and similar knowledge backgrounds.

Nonetheless, there were some alternative factors affecting students' choice of English-taught program of study. For instance, a senior student from engineering program elaborated that since she had already known the language, she chose to get a degree in a technical specialty in English that would underpin her status at labor market. Knapp (as cited in Margić & Vodopija-Krstanović, 2017) interprets this alluring argument of getting both language and content as “getting two for the price of one” (p. 11). As such, EMI students privileged in comparison to any other student who is either learning English as a foreign language or attending a specialty program in his or her first language.

Although future career goals are said to be reason for EMI, some participants were concerned about the adjustment issues at local jobs after graduation. This finding aligns with Margić and Vodopija-Krstanović's (2017) point that EMI may produce “experts who are incompetent or reluctant to operate in their areas of specialty in their L1” (p. 19) since the professional competence was built around English. As such, their chances of being employed at local level are reduced (Wilkinson, as cited in Margić, Vodopija-Krstanović, 2017). At the same time, as was reported by professors, when a student is studying in English, which is a non-native language, he/she cannot cover as much as he could in his or her L1 (see also Lueg & Lueg, 2015). Yeh (2014) raised the same concern in his study of

EMI context in Taiwan. Therefore, it can be concluded that EMI students can operate better in English environment than in L1; yet, their professional knowledge may be not deep.

Another interesting point that did not rise in data, but in literature is the creation of equal opportunities for speakers of minority and majority languages when studying in English which is not native for both groups (Coleman, 2006; see also Margić, Vodopija-Krstanović, 2017). It is worth noting that in the given study minority language speakers are viewed as students whose first language is other than Russian or Kazakh while students with Russian or Kazakh L1s are majority language speakers. In addition, in Kazakhstani context minority speakers in most cases are limited to choose Kazakh or Russian as their language of education and study with other native speakers of Kazakh or Russian. However, although in the given case minority and majority language representatives get equal opportunities in learning process, one has to consider that different English proficiency levels of students within a department creates uneven opportunities for both majority and minority language speakers.

### **STEM and Social Sciences Students' Language Challenges in Academic Process in EMI Program**

Although instructors and students admit the presence of challenges, it was wholeheartedly stated by STEM and Social Sciences students that studying in EMI program was not difficult for them overall. Indeed, the university's entrance language requirement is minimum IELTS score of 6.0, which might indicate that students come with proper English language background. There can be parallels made between Chapple's (2015) finding where 72% of 89 Japanese students studying in EMI programs with 4.0 IELTS minimum score requirement claimed that it was more difficult to study in EMI

program than they expected. It can be seen that differences in beliefs about EMI programs correspond to language requirement differences.

Arantegui et al (as cited in Cots, 2013) also found that students in Spanish university believed that they were not well-prepared for EMI; yet, there is no data about the language level of responded students. That is absolutely opposite to the case of this study: none of the participants mentioned unpreparedness for English taught programs. It can be explained by the fact that they all went through the preparatory program for university where English skills were aimed to be improved as well. This suggests that the program does well in preparing students because students already come to the first year of university studies with a strong language background evidenced by IELTS scores and, in addition to that, go through a preparatory program.

As was reported in the previous chapter, there are academic and language challenges for students and instructors are aware of them. Although Jenkins's (2014) large scale study confirms instructors' awareness of students' difficulties, it was also noticed in the data collected for the present study that instructors' awareness about the students' challenges and students' perceptions about their challenges might not match.

In this study students' language-oriented academic challenges in EMI program are presented through four language skills. In the next two subsections, writing and speaking challenges are grouped together as difficulties in productive or output skills, which are skills of "making meaning and producing messages" (p. 62) in written or oral form (Ortega, 2009). Reading and listening challenges were considered under the language input challenges that is receiving linguistic information from the other speakers of the target language (Ortega, 2009).

**EMI students' language-oriented academic challenges in relation to output skills.** There are number of academic and language challenges for all students pointed out

by all participants. Among all challenges that were reported by students, writing and speaking found to be the most burdening one for both STEM and Social Sciences students. One can say output skills are the ones that students struggle with and want to improve.

*Speaking challenges in EMI academic environment.* The communication between STEM students and professors was insufficient and this influenced negatively on their speaking skills. The importance of interaction was underscored by Duff (2010) who also emphasized the role of the authoritative bodies represented by teaching and administrative staff in successful socialization in academia. The rampant result of insufficient oral/speaking interaction was pointed out by a senior STEM student who felt nervous and stuttered when speaking in English to professors even after four years of working with them. Not surprising is the fact that students' spoken language became limited to the area of their majors. Hu and Lei (2014) came up with similar finding that "there's essentially no such thing as real communication" (p. 561). However, in Hu and Lei's study it was social sciences students in EMI program who claimed that even though they understand textbooks they really need discussions in class to better understand the content as well as improve speaking. That is opposite to what social sciences students of this study responded. The possible explanation to such differences might be the fact that students of social sciences department were practicing classroom discussion activities. Moreover, cultural, contextual, school/discipline-level features can lie in the root of discrepancies in speaking issues of students.

The speaking issues with lack of confidence and need in communication are also found in studies with international students in English dominant countries (Sawir, 2005). Undoubtedly, the case of EMI students is in a way different from the case of international students since international students' language challenges are triggered by differences in learning style, culture shock, homesickness, and social difficulties. Nevertheless,

similarities can be traced especially in the present study since as was described in methodology chapter the research site seeks to reproduce the environment of international university in English dominant environment by hiring native or near-native international faculty. For example, Robertson et al. (2000) stated that international students are less confident to speak out in front of native speaker. Similarly, crediting IELTS results as reliable language test, students with lower results may be less confident to speak in front of the class as well as in individual formal/informal talk with professors or students with higher English proficiency. On top of that, the cultural distance (see also Yaylaci & Islam, 2013) that teacher and student have in Kazakhstani context and uncertainty in speaking skills might trigger the difficulty of approaching to professors and asking questions from them.

Another problem both students and teaching-administrative staff identified in developing students' English speaking skills is overuse of Russian. Russian was perceived as a hindrance for improving English, but a resource for learning content. Ironically, no participants viewed Kazakh language as a threat for English. This indicates the dominance of Russian language not only over English but Kazakh as well.

Interestingly, the local languages were not viewed as threat in many other universities with EMI programs (e.g., Chapple, 2015; Hu & Lei, 2014). The use of students' L1 was viewed as support for students with inadequate English language proficiency and used to facilitate their understanding (Ibrahim, 2001; Shohamy, 2013; Vu & Burns, 2014). This discrepancy in attitudes to the local language could be attributed to the fact that in this study students' English proficiency is high enough that they need no scaffolding in Russian. A perspective of international students who accepted being in English-speaking environment and culture as benefit for successful language learning,

reported by Sawir (2005), might be an alternative way to understand EMI students of the present study.

This relationship between English, Russian and, if it is relevant, Kazakh can be viewed through the language ecology framework (Hornberger, 2001). The language under threat is not Kazakh, but English. Despite the university's efforts to suppress Russian, students cannot refuse from the use of Russian in peer communication. It might be suggested that the scale of the problem can be minimized by increasing the number of international students. Yet, EMI might negatively influence the expansion of Kazakh as scientific language because by using English for science and research less space is left for the development of Kazakh, as was noted by one of the participants and Seitzanova et al. (2015).

***STEM and Social Sciences Students' Academic Writing Challenges in EMI program.*** Although STEM students were more concerned about their writing skills than social sciences students, one has to agree that latter ones had the opportunity for more complex and advanced writing. The nature of challenges also reflected the needs of students by major. STEM students struggled to write while social sciences had some problem with structure and organization. Of course, students from social sciences department write a lot and the only problem they might have is structuring and organizing body of essay. In contrast, STEM students did not indulge in writing complex essays on the issues of social sciences.

However, professors believed that writing challenges for all EMI students and international students as well (Brown, 2008) starts from the misconception of the meaning of academic writing. Academic writing is a challenge on its own, let alone academic writing in English (Belcher, as cited in Singh, 2015). Levi and Zhu and Flaitz also add that the concept of academic writing may differ in students' L1s (as cited in Lin & Scherz,

2014, p. 17). However, as was shared by all professors in the current study, if a student can write in his or her L1 and by 'can write' professors mean academic writing with logical argumentation and ideas, critical analysis, then he or she can also write in English as in L2 or other learnt languages. Ibrahim (2001)'s findings confirm this finding. By saying that, one can recognize Cummins' (1982) Iceberg theory of Common Underlying Proficiency Model which states that skills gained in L1 are transferable across the languages (see also Ibrahim, 2001).

Overall, writing in non-native language is challenging (Lin & Scherz, 2014) unless students have writing skills developed in their L1 and practice a lot in English writing. It also could depend on what students practice to write. As in the case with STEM students, they can effortlessly produce high-quality scientific reports because they are asked to write them a lot. Social sciences, in turn, learn and practice producing extensive papers which are much more complex than reports STEM students produce. Therefore, when engineering, chemistry, biology and IT students need to write non-major related papers they might struggle as well as social sciences students would if they were writing STEM reports.

**EMI students' challenges with input: reading and listening issues.** From the interviews with both STEM and Social Sciences students and faculty members it can be seen that listening and reading in English are less challenging compared to productive skills. No detailed notes about difficulties of listening and reading comprehension in EMI context are found in the studies about EMI, although research about international students did raise similar issues.

Regarding reading, professors admitted that it takes longer for their students and students studying in non-native language to read in non-native language; Lin and Scherz (2014) in their research with international students support this. Although students in my

study expressed less concern about reading in English, EMI students in Hu & Lei (2014)'s research and professors who participated in my study believed that students might not get in depth understanding of the content. Besides, idioms or text interpretation (Sawir, 2005) might complicate the understanding of complex content whether it is presented in oral or written form. From this piece of information one might understand that students are generally believed to put extra effort into understanding of written text. However, the perception of students in the case of the given study about reading in English as the least challenging aspect of studying in EMI might be connected to the fact that adequate support is given to them.

As for listening, from interviews with STEM students, it was noticed that students missed classes where it was difficult to comprehend lecturer's English language. However, interviewed staff members did not mention instructors' weak speaking skills or poor lecture delivery in English as a challenge for students adding that there are only accents that might be challenge. Instructors' language skills might be not perceived as an issue because all teaching staff are international or at least have international education. Therefore, falling into one of the above mentioned categories does not mean that professors are proficient in English to teach EMI courses at adequate level.

In contrast, professors were less concerned about listening. The interesting thing about listening difficulties is that students were worried more than instructors and believed that challenges are not caused by their English listening skills deficiency but by speaking problem of professors. US international students from Asia complained as well that some professors speak too fast and their speech might not be academic, which makes comprehension even more difficult (Sawir, 2005). In the case of the present study along with fast speaking there are much more diverse challenges in EMI: the accent (see also Yeh, 2014), culture and even sentence structure influenced by L1 of professors which

would probably belong to non-native speakers. Professors speaking fast or speaking with accent would probably be difficult to understand because students did not work with such and just got used to the speaking considered as standard English. Of course, it cannot be excluded that professors might have low speaking skills even if they are international.

Here, one would agree with Chapple (2015) that the question of “who teaches and how” (p. 6) is important for success of EMI program. At the same time, analyzing research on EMI one can see that local professors in EMI program use this language weakness as benefit by actively using local language to facilitate learning for student (Hu & Lei, 2014, Chapple, 2015). However, this experience is not applicable to the present case since the most of the teachers in the research site are international.

### **Measures Addressing EMI Students' Language Challenges in Academic Context**

There are different ways of addressing EMI students' language challenges in university life. Moreover, different stakeholders' have their own perspective on challenges and on the ways of addressing them.

Challenges with academic writing have been addressed largely by writing center operating in the department of social sciences. They could also consult with professors, although their office hours for students are limited and the number of students willing to get consultation is high. Therefore, most of the participants, predominantly STEM students reported their desire to have more office hours with professors where they can get not only advice for writing but practice speaking as well. However, professors believed that they are already providing enough time for them having in addition open door policy that allows students to come anytime. These findings indicate that students and professors need more communication because of controversy in the issue of addressing students' writing academic needs.

Although students reported that reading is manageable for them, it was professors as well, who provided support in various ways. Much of support was received from slides that contained all main information from book chapters and articles and were presented in a very comprehensible way. The practice of giving information in slides is seems to practice by most EMI professors (Chapple, 2015; Hu & Lei, 2014; see also Barrios, Lopez-Gutierrez, & Lechuga, 2016). Also professors gave less to read where they considered quality reading as important over quantity. Students seemed to be unaware of such language support that makes believe that there are might be other kinds of support provided, but not mentioned by professors and students.

Overall, Byun et al. (2011) suggested that successful EMI program implementation needs addressing following issues: 1) language proficiency levels of stakeholders particularly students and teachers, 2) distinctive characteristics of academic subjects and their demands (see also Sert, 2008), and 3) strong management for implementation of EMI and support that fosters successful language policy realization (see also Williams, 2015).

Considering the support by university and faculty members as well students' efforts to address their language challenges, one might see that the university attempted to consider all three areas. Firstly, entrance language requirements (see also Hu, Li & Lei, 2013) and preparatory year program attempted to address the language proficiency requirements of students for the program. Most of the faculty staff is fully international, and local ones obtained international education, thus university tries to ensure threshold of language proficiency for teaching and administrative staff. Yet, interviewed STEM students were not fully satisfied by language level of some their professors, but subject knowledge. On the second point, students of social sciences department were offered courses for developing their academic writing, were given opportunity to develop speaking at seminar discussions, although STEM students complained about the program that it does

not develop their English, particularly writing, which is important for them. Third, the university cooperates with both teaching and administrative staff in addressing students' language challenges.

### **Conclusion**

Overall, what is clear from data analysis is that students of different majors have different academic language challenges. Indeed, this is true because different courses have different demands (Williams, 2015). It can be said that STEM area is content driven while social sciences area is language-oriented. However, STEM students seem to be not satisfied with development of their language skills. It might be the fact that STEM students consider social science students' language levels and opportunities to develop it and expect to get their language developed at the same level.

In the meantime, considering the desire of all students to improve their writing skills and other language skills, it is important to take note that EMI classes are not meant to improve the four skills as they are not language focused classes (Ibrahim, 2001). Yet, productive skills need to be properly supported since the ways writing and speaking challenges are addressed seem to be not enough.

To sum up, the section discussed the findings and relevant literature to answer the research questions of the given study. In the next and final part of the study, along with summary of research some practical implication and recommendation in relation to the study and its findings will be suggested.

## Chapter 6: Conclusion

The present chapter aims to provide summary of the given study. The present study was designed to determine STEM and social sciences students' perceptions of an EMI program and their language-oriented academic challenges in one of the international universities in Kazakhstan. Data were collected through in-depth interviews with teaching and administrative staff members and freshman and senior students from different majors. Where more participants were accessible, focus groups were used to interview students. Along with brief overview, the chapter also suggests possible practical implications of findings of the study and recommendations for stakeholders and policymakers. Limitations of the study suggesting directions for the further research end the chapter and the whole study.

When trying to understand the concept of EMI, the concepts of internationalization and globalization come up since they are connected with each other. Based on sources analysis and findings of the study, it can be concluded that there is at least one similarity in roles of EMI for various stakeholders – it is connected with internationalization and globalization. Each group of stakeholders perceives and uses English in the frame of EMI as tool to get to international arena, global world.

Overall, data analysis on STEM and Social Sciences students' perception and their language challenges in EMI academic context build up the following overarching findings.

So far, the most obvious finding to emerge from this study is that it is instrumental motivation of success in career and education (Ibrahim, 2001) that lead EMI students of international university to choose EMI. At the same time EMI can bring negative effect on their disciplinary knowledge. Thus, imagined success made students to take risks of studying in English that, in turn, could postpone the success.

Second, this study has also identified that STEM and social sciences students have different academic language challenges in terms of four language skills. So far, STEM students' needs differ from social sciences because STEM sciences are content driven subjects while social sciences are more language-oriented area.

The third major finding was that STEM and social sciences students equally expected their English to be improved in the program. However, it can be seen that only social sciences students succeed in it.

Fourth, the research has also shown that language output skills, e. i. writing and speaking, are the areas where all students have most of the challenges. Listening and reading are of less issue for students.

Fifth, the results of this investigation show that speaking in English in Kazakhstani EMI is limited, and therefore, speaking skills of students cannot fully be developed in the Kazakhstani context. Yet, EMI students want to develop their English speaking and limited speaking exposure is their challenge, although the analysis of challenges of international students revealed in English-dominant context students still struggle to speak in English. Indeed, international and EMI students have different purposes for improving their speaking skills.

Sixth, the investigation of students' and teaching-administrative staff member' perceptions on formers' language challenges has shown that in general they all share the understanding of existing language issues of students. Yet, not always their interpretation of challenges, reasons, and support matched. On this point, writing and reading challenges were addressed successfully; listening and speaking issues still need communication between students, teachers and university administration.

Seventh, this study has found that generally university support and support by faculty members was sufficient for students to say that it is not difficult to study in English.

Although students were satisfied with this level of support, they still needed more interaction with professors.

### **Recommendations**

Based on the analysis of findings and literature on the students' language challenges in EMI context the following recommendations for different stakeholders can be suggested.

As was explored, students want their English to improve and EMI does not guarantee that. Therefore, to get their English improved students are recommended to immerse themselves into English environment which can be created by watching and reading media in English, and using English for communication with peers. Thus, the university's English-only policy may find its realization de-facto not only in academic level, but social level as well. Faculty members, in turn, should not wait until students come with their language challenges. Considering cultural differences and possible language barriers students may not be open to share their concerns. The study recommends for professors to expose students to more interaction.

Analyzing the language challenges of EMI students in international university, the practice of the university might be assessed as successful EMI implementation. For the other international universities in Kazakhstan it is also suggested to consider these effective strategies to address language challenges of students. Yet, state universities may find it difficult to apply the experiences of international university for EMI implementation. Therefore, taking into account that the management of higher education is centralized, it is recommended to adjust the practices to the specific context of state universities. Otherwise, replication of EMI practice of the international university in state institutions may fail the implementation of their language policy.

### **Limitations**

There are several limitations found in the methodology of the present study. First, the focus of the study was international university, but not state university. Therefore, the findings cannot be generalized beyond the context of international university in Kazakhstan. Also, the small sample size is limitation of the research even if it is qualitative study. Next, as only interview strategy was used for data collection, utilizing more diverse methods for data collection could bring different findings about the issue. Third, the present study covers language challenges of undergraduate students only while graduate students may have absolutely different issues.

### **Recommendations for the Further Research**

The findings of the given study suggest some areas for further research. A future study investigating minority and majority language speaking students' perspectives on language issues in EMI academic environment would be very interesting. By studying it, university administration, faculty members and policy makers can explore whether the challenges are different, and then, address them considering individual needs of two groups.

As the present study's focus is on undergraduate students, it is suggested to replicate the study for graduate students. This is of great importance because there are much more EMI courses for graduate students (Dearden, 2014) and their academic programs differ a lot as well as their needs. The similar research can be conducted in the context of state universities. Thus, after investigating the EMI issues in state universities, practices of other universities with successful EMI implementation can be adapted.

Considering methodological limitations of the study, it is recommended to conduct similar research involving larger population with different data collection tools such as focus groups and surveys. Thus, the research can give complete and in-depth picture of students' language issue in EMI.

### References

- Altbach, P. G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of Studies in International Education*, 11(3-4), 290-305. DOI: <https://doi.org/10.1177/1028315307303542>
- Ashley, L., D. (2012). Case study research. In J. Arthur, M. Waring, R. Coe, & L. V. Hedges (Eds.) *Research methods and methodologies in education* (pp.102-107). SAGE publications.
- Barrios, E., López-Gutiérrez, A., & Lechuga, C. (2016). Facing challenges in English Medium Instruction through engaging in an innovation project. *Procedia-Social and Behavioral Sciences*, 228, 209-214. DOI: <https://doi.org/10.1016/j.sbspro.2016.07.031>
- Bedenlier, S., & Zawacki-Richter, O. (2015). Internationalization of higher education and the impacts on academic faculty members. *Research in Comparative and International Education*, 10(2), 185-201. DOI: 10.1177/1745499915571707
- Berg, B. L. (2001). *Qualitative research methods for the social sciences* (4th ed.). Needham Heights: A Pearson Education Company
- Brown, L. (2008). The incidence of study-related stress in international students in the initial stage of the international sojourn. *Journal of Studies in International Education*, 12(1), 5-28. DOI: <https://doi.org/10.1177/1028315306291587>
- Byun, K., Chu, H., Kim, M., Park, I., Kim, S., Jung, J. (2011). English-medium teaching in Korean higher education: policy debates and reality. *Higher Education*, 62, 431–449. DOI:10.1007/s10734-010-9397-4
- Chapple, J. (2015). Teaching in English is not necessarily the teaching of English. *International Education Studies*, 8(3), 1-13. DOI: 10.5539/ies.v8n3p1

- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education*. Milton Park. Abingdon, Oxon, England: Routledge.
- Coleman, J. A. (2006). English-medium teaching in European higher education. *Language teaching*, 39(01), 1-14. DOI: 10.1017/S026144480600320X
- Costa, F., & Coleman, J. A. (2013). A survey of English-medium instruction in Italian higher education. *International Journal of Bilingual Education and Bilingualism*, 16(1), 3-19. DOI: <http://dx.doi.org/10.1080/13670050.2012.676621>.
- Cots, J. M. (2013). Introducing English-medium instruction at the university of Lleida, Spain: Intervention, beliefs and practices. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-Medium of Instruction at Universities. Global Challenges* (pp. 106–127). Toronto: Multilingual Matters.
- Council of Europe, (2002). Common European framework of reference for languages: learning, teaching, assessment. Retrieved from:  
[https://www.coe.int/t/dg4/linguistic/Source/Framework\\_EN.pdf](https://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf)
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE publications.
- Cummins, J. (1982). Interdependence and Bicultural Ambivalence: Regarding the Pedagogical Rationale for Bilingual Education. Retrieved from:  
<http://files.eric.ed.gov/fulltext/ED227683.pdf>
- Dafouz, E., & Camacho-Miñano, M. M. (2016). Exploring the impact of English-medium instruction on university student academic achievement: The case of accounting. *English for Specific Purposes*, 44, 57-67. DOI:  
<https://doi.org/10.1016/j.esp.2016.06.001>
- Dearden, J. (2014). *English as a medium of instruction – a growing global phenomenon*. [online] British Council. Available at:

[https://www.britishcouncil.org.br/sites/default/files/emi\\_a\\_growing\\_global\\_phenomenon.pdf](https://www.britishcouncil.org.br/sites/default/files/emi_a_growing_global_phenomenon.pdf) [Accessed 29 Nov. 2016].

Doiz, A., Lasagabaster, D., & Sierra, J. (2011). Internationalisation, multilingualism and English-medium instruction. *World Englishes*, 30(3), 345-359. DOI: 10.1111/j.1467-971X.2011.01718.x

Doiz, A., Lasagabaster, D., & Sierra, J. M. (2013). Introduction. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-Medium of Instruction at Universities. Global Challenges*. (pp. 17-22). Toronto: Multilingual Matters.

Duff, P. A. (2010). Language socialization into academic discourse communities. *Annual Review of Applied Linguistics*, 30, 169-192. DOI:10.1017/S0267190510000048

Ferguson, G. (2007). The global spread of English, scientific communication and ESP: questions of equity, access and domain loss. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*, (13), 7-38. Retrieved from: <http://www.aelfe.org/documents/02%20ferguson.pdf>

Gibbs, R., G. (2012). Software and qualitative data analysis. In J. Arthur, M. Waring, R. Coe, & L. V. Hedges (Eds.) *Research Methods and Methodologies in Education* (pp.251-258). SAGE publications.

Goodman, B. A. (2013). *Towards a multilingual future: The ecology of language at a university in Eastern Ukraine*. Unpublished doctoral dissertation, University of Pennsylvania.

Goodman, B. A. (2014). Implementing English as a medium of instruction in a Ukrainian University: Challenges, adjustments, and opportunities. *International Journal of Pedagogies and Learning*, 9(2), 130-141. DOI: 10.1080/18334105.2014.11082026

- Hartley, M., Gopaul, B., Sagintayeva, A., & Apergenova, R. (2016) Learning autonomy: higher education reform in Kazakhstan. *Higher Education* 72(3), 277-289. DOI: 10.1007/s10734-015-9953-z
- Hornberger, N. H. (2002). Multilingual language policies and the continua of biliteracy: An ecological approach. *Language policy*, 1(1), 27-51. DOI: 10.1023/A:1014548611951
- Hou, Y. C. A., Morse, R., Chiang, L. C., & Chen, J. H. (2013). Challenges to quality of English medium instruction degree programs in Taiwanese universities and the role of local accreditors: a perspective of non-English-speaking Asian country. *Asia Pacific Education*, 14, 359-370. DOI: 10.1007/s12564-013-9267-8
- Hu, G., & Lei, J. (2014). English-medium instruction in Chinese higher education: a case study. *Higher Education*, 67, 551-567. DOI: 10.1007/s10734-013-9661-5
- Hu, G., Li, L., & Lei, J. (2014). English-medium instruction at a Chinese University: rhetoric and reality. *Language Policy*, 13(1), 21-40. DOI: 10.1007/s10993-013-9298-3
- Ibrahim, J. (2004). The implementation of EMI (English medium instruction) in Indonesian universities: Its opportunities, its threats, its problems, and its possible solutions. *k@ta*, 3(2), 121-138. Retrieved from: <http://puslit2.petra.ac.id/ejournal/index.php/ing/article/view/15479/15471>
- Im, J. H., & Kim, J. (2015). Use of Blended Learning for Effective Implementation of English-Medium Instruction in a Non-English Higher Education Context. *International Education Studies*, 8(11), 1. DOI:10.5539/ies.v8n11p1
- Jenkins, J. (2014). *English as a lingua franca in the international university: The politics of academics English language policy*. New-York: Routledge.

Jimenez-Munoz, A. (2015). Flipping lectures: analyzing student workload in EMI contexts.

*Procedia-Social and Behavioral Sciences*, 212, 35-41. DOI:

<https://doi.org/10.1016/j.sbspro.2015.11.295>

Kirkpatrick, A. (2014). English as a medium of instruction in East and Southeast Asian universities. In *Dynamic Ecologies* (pp. 15-29). Springer Netherlands. Retrieved

from: [https://link.springer.com/chapter/10.1007%2F978-94-007-7972-3\\_2](https://link.springer.com/chapter/10.1007%2F978-94-007-7972-3_2)

Knight, J. (2004). Internationalization remodeled: definition, approaches, and rationales.

*Journal of Studies in International Education*, 8(1), 5-31. DOI:

10.1177/1028315303260832

Knight, J. (2015). International universities: Misunderstandings and emerging models?

*Journal of Studies in International Education*, 19(2), 107-121. DOI:

<https://doi.org/10.1177/1028315315572899>

Lai, L. M. (2013). Impacts of medium of instruction on language attitudes: A case of Hong

Kong. *Asia-Pacific Education* 22, 61-68. DOI: 10.1007/s40299-012-0025-1

Lin, S. Y., & Scherz, S. D. (2014). Challenges facing Asian international graduate students in the US: Pedagogical considerations in higher education. *Journal of International*

*Students*, 4(1), 16-33. Retrieved from:

<https://jistudents.files.wordpress.com/2013/02/2-challenges-facing.pdf>

Lueg, K., & Lueg, R. (2015). Why do students choose English as a medium of instruction?

A Bourdieusian perspective on the study strategies of non-native English speakers.

*Academy of Management Learning & Education*, 14(1), 5-30. Retrieved from:

[http://pure.au.dk/portal/files/86075164/AMLE\\_March2015.pdf](http://pure.au.dk/portal/files/86075164/AMLE_March2015.pdf)

Macaro, E. (2015). English Medium Instruction: Time to start asking some difficult questions. *Modern English Teacher*, 24(2), 4-7. Retrieved from:

[https://www.modernenglishteacher.com/uploadedFiles/Redbox/Pavilion\\_Content/Our\\_Content/ELT/MET/MET2010s/MET2015/MET\\_24-2/macaro.pdf](https://www.modernenglishteacher.com/uploadedFiles/Redbox/Pavilion_Content/Our_Content/ELT/MET/MET2010s/MET2015/MET_24-2/macaro.pdf)

Margić, B. D., & Vodopija-Krstanović, I. (2017). *Uncovering English-medium instruction: global issues in higher education*. Oxford: Peter Lang. DOI: <http://dx.doi.org/10.3726/b10418>

Maringe, F. (2010). The meaning of globalization and internationalization in HE: Findings from a world survey. In F. Maringe & N. Foskett (Eds.), *Globalization and Internationalization in Higher Education* (pp.17–34). London: A Bloomsbury company.

Maringe, F & Foskett, N. (2010). Introduction. In F. Maringe & N. Foskett (Eds.), *Globalization and Internationalization in Higher Education* (pp.17–34). London: A Bloomsbury company.

Maudarbekova, B., & Kashkinbayeva, Z. (2014). Internationalization of Higher Education in Kazakhstan. *Procedia - Social and Behavioral Sciences*, 116, 4092 – 4097. DOI: 10.1016/j.sbspro.2014.01.896

Mazhitayeva, S., Smagulova, G., & Tuleuova B. (2012). Multilingual Education as One of Priority Directions of Educational System Development in the Republic of Kazakhstan. *European Researcher*, 33(11), 1864-1867. Retrieved from: [http://www.erjournal.ru/journals\\_n/1353473745.pdf](http://www.erjournal.ru/journals_n/1353473745.pdf)

MoES (Ministry of Education and Science of the republic of Kazakhstan) (2010), “State program of education development for 2011-2020”, Decree of the President of the Republic of Kazakhstan, No.1118 from December 7, 2010, Astana. Retrieved from: [www.akorda.kz](http://www.akorda.kz)

Merriam, S. B. (2002). *Qualitative Research in Practice: Examples for Discussions and Analysis* (1st ed.). Jossey-Bass Inc Pub. Retrieved from:

<https://people.ucsc.edu/~ktellez/Johnson-Bail.pdf>

Oralova, G. (2012). Internationalization of higher education in Kazakhstan: issues of instruction in foreign languages. *Journal of Teaching and Education*, 1(2), 127-133. Retrieved from:

[https://www.researchgate.net/publication/259529213\\_INTERNATIONALIZATION\\_OF\\_HIGHER\\_EDUCATION\\_IN\\_KAZAKHSTAN\\_ISSUES\\_OF\\_INSTRUCTION\\_IN\\_FOREIGN\\_LANGUAGES](https://www.researchgate.net/publication/259529213_INTERNATIONALIZATION_OF_HIGHER_EDUCATION_IN_KAZAKHSTAN_ISSUES_OF_INSTRUCTION_IN_FOREIGN_LANGUAGES)

Ortega, L. (2014). *Understanding second language acquisition*. Routledge. Chicago.

Retrieved from:

[https://books.google.kz/books?hl=en&lr=&id=30bKAgAAQBAJ&oi=fnd&pg=PP1&dq=understanding+second+language+acquisition+&ots=Ca9\\_Y\\_kNTz&sig=Fj-RdjQioKuZUfWKqVFscIAjCo&redir\\_esc=y#v=onepage&q=understanding%20second%20language%20acquisition&f=false](https://books.google.kz/books?hl=en&lr=&id=30bKAgAAQBAJ&oi=fnd&pg=PP1&dq=understanding+second+language+acquisition+&ots=Ca9_Y_kNTz&sig=Fj-RdjQioKuZUfWKqVFscIAjCo&redir_esc=y#v=onepage&q=understanding%20second%20language%20acquisition&f=false)

Phillipson, R. (2006). English, a cuckoo in the European higher education nest of languages? *European Journal of English Studies*, 10(01), 13-32. DOI:

<http://dx.doi.org/10.1080/13825570600590846>

Qiang, Z. (2003). Internationalization of higher education: Towards a conceptual framework. *Policy Futures in Education*, 1(2), 248-270. DOI:

<https://doi.org/10.2304/pfie.2003.1.2.5>

Robertson, M., Line, M., Jones, S., & Thomas, S. (2000). International students, learning environments and perceptions: A case study using the Delphi technique. *Higher Education Research & Development*, 19(1), 89-102. DOI:

[org/10.1080/07294360050020499](http://dx.doi.org/10.1080/07294360050020499)

- Rose, M. (1985). The language of exclusion: Writing instruction at the university. *College English*, 47(4), 341-359. Retrieved from:  
[https://vaia110spring11.qwriting.qc.cuny.edu/files/2011/01/Mike-Rose\\_The-Language-of-Exclusion.pdf](https://vaia110spring11.qwriting.qc.cuny.edu/files/2011/01/Mike-Rose_The-Language-of-Exclusion.pdf)
- Sawir, E. (2005). Language difficulties of international students in Australia: The effects of prior learning experience. *International Education Journal*, 6(5), 567-580. DOI: <https://doi.org/10.1177/1028315309336031>
- Sert, N. (2008). The language of instruction dilemma in the Turkish context. *System*, 36, 156-171. DOI: <https://doi.org/10.1016/j.system.2007.11.006>
- Seitzhanova, A., Plokhikh, R., Baiburiev, R., & Tsaregorodtseva, A. (2015). English as the medium of instruction: modern tendency of education in Kazakhstan. *Perspectives of Innovations, Economics and Business*, 15(3), 113-117. Retrieved from:  
[https://academicpublishingplatforms.com/downloads/pdfs/picp/volume4/201510050443\\_09\\_PICP\\_Vol3\\_Issue1\\_2015\\_Seitzhanova\\_Plokhikh\\_et\\_al\\_English\\_as\\_instruction\\_education\\_Kazakhstan\\_pp.74-77.pdf](https://academicpublishingplatforms.com/downloads/pdfs/picp/volume4/201510050443_09_PICP_Vol3_Issue1_2015_Seitzhanova_Plokhikh_et_al_English_as_instruction_education_Kazakhstan_pp.74-77.pdf)
- Shohamy, E. (2013). A critical Perspective on the Use of English as a Medium of Instruction at Universities. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-Medium of Instruction at Universities. Global Challenges* (pp. 196–210). Toronto: Multilingual Matters.
- Singh, M. K. M. (2015). International graduate students' academic writing practices in Malaysia: Challenges and solutions. *Journal of International Students*, 5(1), 12-22. Retrieved from: <http://files.eric.ed.gov/fulltext/EJ1052831.pdf>
- Vu, N. T., & Burns, A. (2014). English as a medium of instruction: Challenges for Vietnamese tertiary lecturers. *The Journal of Asia TEFL*, 11(3), 1-31. DOI: [org/10.1080/01434632.2013.868901](https://doi.org/10.1080/01434632.2013.868901)

- Werther, C., Denver, L., Jensen, C., & Mees, I. M. (2014). Using English as a medium of instruction at university level in Denmark: the lecturer's perspective. *Journal of Multilingual and Multicultural Development*, 35(5), 443-462. DOI: <http://dx.doi.org/10.1080/01434632.2013.868901>
- Williams, D. (2015). A Systematic Review of English Medium Instruction (EMI) and Implications for the South Korean Higher Education Context. [Blog] English Language Teaching World Online. Available at: <http://blog.nus.edu.sg/eltwo/2015/04/27/a-systematic-review-of-english-medium-instruction-emi-and-implications-for-the-south-korean-higher-education-context-2/> [Accessed 8 Feb. 2017].
- Yaylaci, Y., & Islam, A. (2013). Teaching Across Cultures: Considerations for International Language Teachers in Kazakhstan. *Procedia-Social and Behavioral Sciences*, 103, 900-911. DOI: 10.1016/j.sbspro.2013.10.412
- Yeh, C. C. (2014). Taiwanese students' experiences and attitudes towards English-medium courses in tertiary education. *RELC Journal*, 45(3), 305-319. DOI: 10.1177/0033688214555358
- Yin, R. K. (2014). *Case study research: Design and methods*. SAGE publications.
- Zolfaghari, A., Sabran, M. S., & Zolfaghari, A. (2009). Internationalization of higher education: challenges, strategies, policies and programs. *Online Submission*, 6(5), 1-9. Retrieved from: <http://files.eric.ed.gov/fulltext/ED505713.pdf>
- Zhumzhumina, A. (2013, December 1). *Nazarbayev calls Kazakhstan to learn English* [online]. Available at: <https://en.tengrinews.kz/edu/Nazarbayev-calls-Kazakhstan-to-learn-English-24393/> [Accessed 16 Nov. 2016].

## Appendix A

### INFORMED CONSENT FORM (for teaching-administrative staff)

#### STEM and Social Sciences Students' Language-Oriented Academic Challenges

#### in English Medium of Instruction (EMI) Programs: The Case of An

#### International University in Kazakhstan

**DESCRIPTION:** You are invited to participate in a **research study** on “STEM and Social Sciences Students Language Challenges in Academic Context with English Medium of Instruction (EMI): The Case of An International University in Kazakhstan”. The purpose of the study is to investigate STEM and Social sciences students' language challenges in a university with English as a language of instruction as well as measures taken to help students to manage with the challenges. The investigation of the given issue will help other institutions that have already had or plan to introduce similar programs to predict possible students' academic language challenges in different study programs and learn the experience of others in addressing the challenges. For this study you will be asked to participate in **interview**. Upon your approval names or other identifying information will be kept anonymous by using pseudonyms. The interview will be audio taped only with your permission. All gathered data will be stored in the secure place for the duration of the study and destroyed once it presented. No one except me and thesis supervisor will have an access to the information.

**TIME INVOLVEMENT:** Your participation will take approximately 45 minutes. You may also be asked to be interviewed again on some other questions emerged from other procedures of the study.

**RISKS AND BENEFITS:** The risks associated with this study are minimal. Although the name of institution will be not mentioned throughout the research, since it is case study involving one institution, there is a possibility that the research report might indirectly reveal the name of the institution. If so, the university administration may disagree with the findings report and charge all the teachers and schools' administrative staff to explain it. The research participants who exposed the university data might also be penalized. To minimize risks the data and words that might lead to exposure of university's name will be avoided. So, in the research Nazarbayev University will be considered not as international university, but the one which has English as a language of instruction (that is the focus of the research).

The potential benefits directly to you for taking part in this study include the opportunity to reflect on your students' academic challenges in the program. The benefits which may reasonably be expected to result from this study are that the university staff will hear students and their own voices about the students' academic challenges. They will understand what the students' needs are and what they do wrong regarding to the problem.

Your decision whether or not to participate in this study will not affect your employment.

**PARTICIPANT'S RIGHTS:** If you have read this form and have decided to participate in this project, please understand your **participation is voluntary** and you

have the **right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate.** You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

#### CONTACT INFORMATION:

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Master's Thesis Supervisor for this student work, **Bridget Goodman**, [bridget.goodman@nu.edu.kz](mailto:bridget.goodman@nu.edu.kz)

**Independent Contact:** If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

Please sign this consent form if you agree to participate in this study.

- I have carefully read the information provided;
- I have been given full information regarding the purpose and procedures of the study;
- I understand how the data collected will be used, and that any confidential information will be seen only by the researchers and will not be revealed to anyone else;
- I understand that I am free to withdraw from the study at any time without giving a reason;
- With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Signature: \_\_\_\_\_

Date:

\_\_\_\_\_

**The extra copy of this signed and dated consent form is for you to keep.**

**According to the law of the Republic of Kazakhstan an individual under the age of 18 is considered a child. Any participant falling into that category should be given the Parental Consent Form and have it signed by at least one of his/her parent(s) or guardian(s).**

## Appendix B

### INFORMED CONSENT FORM (for students)

#### STEM and Social Sciences Students' Language-Oriented Academic Challenges in English Medium of Instruction (EMI) Programs: The Case of An International University in Kazakhstan

**DESCRIPTION:** You are invited to participate in a **research study** on “STEM and Social Sciences Students Language Challenges in Academic Context with English Medium of Instruction (EMI): The Case of An International University in Kazakhstan”. The purpose of the study is to investigate STEM and Social sciences students' academic language challenges in a university with **English as a language of instruction** (пер. Английский язык обучения) as well as measures taken to help students to manage with the challenges. The investigation of the given issue will help other institutions that have already had or plan to introduce similar programs to predict possible students' academic language challenges in different study programs and learn the experience of others in addressing the challenges. For this study you will be asked to participate in **focus group interview**. Upon your approval names or other identifying information will be kept anonymous by using pseudonyms. The focus group interview will be audio taped only with permission of all participants. All gathered data will be stored in the secure place for the duration of the study and destroyed once it presented. No one except me and thesis supervisor will have an access to the information.

**TIME INVOLVEMENT:** Your participation will take approximately 60 minutes.

**RISKS AND BENEFITS:** The risks associated with this study are minimal. Although, the name of institution will be not mentioned throughout the research, since it is case study involving one institution, there is a possibility that the research report might indirectly reveal the name of the institution. If so, the university administration may disagree with the findings report and charge all the teachers and schools' administrative staff to explain it. The research participants who exposed the university data might also be penalized. To minimize risks, the data and words that might lead to exposure of university's name will be avoided. So, in the research Nazarbayev University will be considered not as international university, but the one which provide EMI program (that is the focus of the research). Also, some psychological risks may be observed for students since students' academic challenges, issues, and difficulties are sensitive matters. In this case, if YOU feel uncomfortable to answer on some questions, YOU have the right to refuse to answer the question or withdraw form a focus group. YOU also can individually approach me to add some private data.

The potential benefits directly to you for taking part in this study include the opportunity to speak out on your academic challenges in your program and get some treats to allay the stress from the challenges. The benefits which may reasonably be expected to result from this study are that the university staff will hear students and their own voices about the students' academic challenges. They will understand what the students' needs are and what they do wrong regarding to the problem.

Your decision whether or not to participate in this study will not affect your grades.

**PARTICIPANT'S RIGHTS:** If you have read this form and have decided to participate in this project, please understand your **participation is voluntary** and you have the **right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate.** You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals. One more thing to mention is that in order to keep confidentiality of participants, everything that was said during the focus group must not be shared outside the focus group interview.

#### **CONTACT INFORMATION:**

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Master's Thesis Supervisor for this student work, **Bridget Goodman**, [bridget.goodman@nu.edu.kz](mailto:bridget.goodman@nu.edu.kz)

**Independent Contact:** If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

Please sign this consent form if you agree to participate in this study.

- I have carefully read the information provided;
- I have been given full information regarding the purpose and procedures of the study;
- I understand how the data collected will be used, and that any confidential information will be seen only by the researchers and will not be revealed to anyone else;
- I understand that I am free to withdraw from the study at any time without giving a reason;
- With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Signature: \_\_\_\_\_

Date:

\_\_\_\_\_

**The extra copy of this signed and dated consent form is for you to keep.**

**According to the law of the Republic of Kazakhstan an individual under the age of 18 is considered a child. Any participant falling into that category should be given the Parental Consent Form and have it signed by at least one of his/her parent(s) or guardian(s).**

## Appendix C

### INFORMED CONSENT FORM (for students in Russian)

#### ФОРМА ИНФОРМИРОВАННОГО СОГЛАСИЯ

#### Проблемы Студентов Направления СТЕМ и Социальных наук в

#### Академическом Контексте Программ с Английским Языком Обучения (EMI):

#### Пример Международного Университета в Казахстане

**ОПИСАНИЕ:** Вы приглашены принять участие в исследовании языковых и академических трудностей студентов технических и гуманитарных специальностей в университете с английским языком обучения. Изучение данной темы поможет другим институтам Высшего образования, которые планируют или уже внедрили программы с английским языком обучения, предсказать возможные трудности студентов и узнать способы их устранения. Вам будет предложено принять участие в интервью в формате фокус-группы (интервью вместе 6-7 другими участниками). Ваше имя или какая-либо идентифицирующая Вас информация останется анонимным и будет скрыто под псевдонимом. Интервью фокус-группы будет записано на звукозаписывающее устройство только с согласием всех участников. Вся собранная информация будет храниться в надежном месте во время написания научной работы, и удалена после проведения презентации результатов. Только я и мой научный супервайзер будет иметь доступ к собранным материалам.

**ВРЕМЯ УЧАСТИЯ:** Ваше участие потребует около одного часа (60 мин.).

#### РИСКИ И ПРЕИМУЩЕСТВА:

Риски, связанные с исследованием минимальны. Тем не менее, так как данное исследование рассматривает только один университет, существует риск разоблачения названия университета, даже если оно не будет указано в работе. В таком случае, администрация университета может не согласиться с результатами исследования и потребовать сотрудников (учительский и административный состав) объяснить их. Более того, участники исследования, пролившие свет на данный вопрос, могут быть наказаны. Поэтому, для того чтобы уменьшить риски, информация, которая может привести к разоблачению университета, не будет использована и будет удалена. Например, Назарбаев Университет будет рассматриваться не как международный университет, но как Высшее Учебное заведение, предоставляющее программы с английским языком обучения (что и является фокусом данного исследования).

Более того, существует риск возникновения психологического давления у студентов во время фокус группы, так как вопрос о трудностях может быть чувствительной темой. Поэтому, студенты имеют право отказаться отвечать на вопрос или покинуть фокус группу. А также, они могут подойти к интервьюеру лично после окончания фокус группы и поделиться информацией, которую не смог/ла огласить при других студентах.

В качестве ожидаемых преимуществ в результате исследования можно рассматривать возможность высказаться о своих академических трудностях в университете и получить сладости для снижения стресса, вызванных этими трудностями. Другое преимущество от участия и результатов исследования заключается в то, что профессорско-преподавательский состав и администрация университета услышит мнения студентов о академических трудностях обучения на английском языке. Они взглянут на потребности студентов и поймут, где их ошибки по отношению к данному вопросу.

Ваше решение о согласии либо отказе в участии никаким образом не повлияет на: *Вашу работу, медицинскую помощь, оценки в школе.*

**ПРАВА УЧАСТНИКОВ:** Если Вы прочитали данную форму и решили принять участие в данном исследовании, Вы должны понимать, что Ваше участие является **добровольным** и что у Вас есть право **отозвать свое согласие или прекратить участие в любое время без штрафных санкций и без потери социального пакета, который Вам предоставляли.** В качестве альтернативы можно не участвовать в исследовании. Также Вы имеете право не отвечать на какие-либо вопросы. Результаты данного исследования могут быть представлены или опубликованы в научных или профессиональных целях. Вся сказанная информация должна остаться конфиденциальной в рамках фокус группы и не должна быть оглашена по окончании фокус группы в целях сохранения конфиденциальности участников.

#### **КОНТАКТНАЯ ИНФОРМАЦИЯ:**

**Вопросы:** Если у Вас есть вопросы, замечания или жалобы по поводу данного исследования, процедуры его проведения, рисков и преимуществ, Вы можете связаться с исследователем, используя следующие данные: **Бриджит Гудман, [bridget.goodman@nu.edu.kz](mailto:bridget.goodman@nu.edu.kz).**

**Независимые контакты:** Если Вы не удовлетворены проведением данного исследования, если у Вас возникли какие-либо проблемы, жалобы или вопросы, Вы можете связаться с Комитетом Исследований Высшей Школы Образования Назарбаев Университета по телефону +7 7172 70 93 59 или отправить письмо на электронный адрес [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

Пожалуйста, подпишите данную форму, если Вы согласны участвовать в исследовании.

- Я внимательно изучил представленную информацию;
- Мне предоставили полную информацию о целях и процедуре исследования;
- Я понимаю, как будут использованы собранные данные, и что доступ к любой конфиденциальной информации будет иметь только исследователь;
- Я понимаю, что вправе в любой момент отказаться от участия в данном исследовании без объяснения причин;
- С полным осознанием всего вышеизложенного я согласен принять участие в исследовании по собственной воле.

Подпись: \_\_\_\_\_

Дата: \_\_\_\_\_

## Appendix D

### INFORMED CONSENT FORM (for students in Kazakh)

#### **ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ** **Ағылшын Тілінде Оқыту Бағдарламаларындағы СТЕМ және Әлеуметтік** **Ғылым Саладағы Студенттердің Академикалық Контексіндегі Тілдік** **Қиындықтары: Қазақстандағы Халықаралық Университетінің Мысалында**

**СИПАТТАМА:** Сіз Қазақстандағы университеттегі ағылшын тілінде оқыту жүйесіндегі техникалық және гуманитарлық бағдарламалардағы студенттердің оқудағы тілдік қиындықтарына бағытталған зерттеу жұмысына қатысуға шақырылып отырсыз. Берілген тақырыптың зерттелуі ағылшын тілінде оқыту жүйесіне өтуге немесе өткен басқа Жоғары білім беру мекемелеріне студенттердің оқудағы қиындықтарын және олардың жою жолдарын біле алады. Осы зерттеу аясында сізге фокус-группа форматындағы интервьюға (6-7 қатысушылармен бірге интервью) қатысу ұсынылады. Сіздің аты-жөніңіз немесе кез келген сіздің жекелендіре алатын ақпарат жасырын сақталады және атыңыз зерттеуде өзгертіліп көрсетіледі. Фокус-группа интервьюі тек барлық қатысушылардың келесімімен аудио құрылғысына жазылатын болады. Барлық жиналған ақпарат зерттеу барысында қауіпсіз жерде сақталады және зерттеу нәтижелері көрсетілгеннен кейін жойылатын болады. Жиналған ақпаратты оқуға рұқсат тек менде және менің зерттеудегі супервайзерімде болады.

**ӨТКІЗІЛЕТІН УАҚЫТЫ:** Сіздің қатысуыңыз шамамен 1 сағат (60 мин.) уақытыңызды алады.

#### **ЗЕРТТЕУ ЖҰМЫСЫНА ҚАТЫСУДЫҢ ҚАУІПТЕРІ МЕН** **АРТЫҚШЫЛЫҚТАРЫ:**

Зерттеу жұмысына қатысудың қауіптері аз. Алайда, зерттеуде тек бір университет қатысуына байланысты, білі беру мекеменің аты анықталу қауіпі бар. Сонда, университеттің администрациясы зерттеу нәтижелерімен келіспеуі мүмкін және мұғалімдерінен және басқа қызметкерлерінен жағдайды түсіндіруді талап етуі мүмкін. Осыған қоса, мәселенің бетін ашқан зерттеуге қатысушылар жазадануы мүмкін. Сондықтан, қауіпті азайту үшін университеттің атын ашатын кез келген ақпарат қолданбайтын болады және дереу жойылады. Мысалы үшін, Назарбаев Университет халықаралық университет ретінде емес, тек ағылшын тілінде оқытатын университет ретінде қарастырылады.

Сонымен қатар, оқудағы қиындықтар мәселесі сезімтал тақырып болғандығынан, фокус-топ ішінде студенттердің психологиялық қысым алу қауіпі бар. Сондықтан, студенттерде сұраққа жауап бермей немесе фокус-топ сұхбатта қатысудан бас тартуға құқығы бар. Сондай-ақ, олар басқа студенттердің алдында айта алмаған мәселелермен фокус-топ интервьюдан кейін бөлісе алады.

Зерттеу жұмысына қатысуыңыздың келесідей артықшылықтары болуы мүмкін: студенттер оқудағы өз қиындықтарымен бөлісуге және осы қиындықтар туғызған стрессті азайтатын тәттілерге қол жеткізе алады. Зерттеудің басқа артықшылығы университет басқармасы және оқытушылары студенттердің

қиындықтары туралы біле алатындығында. Олар студенттердің қиындықтарына қарап және өздерін қозғалған мәселедегі қателіктерін көре алады.

Зерттеу жұмысына қатысуға келісім беруіңіз немесе бас тартуыңыз *Сіздің жұмысыңызға, дәрігерлік көмекке не мектептегі бағаларыңызға* еш әсерін тигізбейді.

**ҚАТЫСУШЫ ҚҰҚЫҚТАРЫ:** Егер Сіз берілген формамен танысып, зерттеу жұмысына қатысуға шешім қабылдасаңыз, Сіздің қатысуыңыз **ерікті** түрде екенін хабарлаймыз. Сонымен қатар, **қалаған уақытта айыппұл төлемей және сіздің әлеуметтік жеңілдіктеріңізге еш кесірін тигізбей зерттеу жұмысына қатысу туралы келісіміңізді кері қайтаруға немесе тоқтатуға құқығыңыз бар.** Зерттеу жұмысына мүлдем қатыспауыңызға да толық құқығыңыз бар. Сондай-ақ, қандай да бір сұрақтарға жауап бермеуіңізге де әбден болады. Бұл зерттеу жұмысының нәтижелері академиялық немесе кәсіби мақсаттарда баспаға ұсынылуы немесе шығарылуы мүмкін. Одан қоса, қатысушылардың құпиялылығын сақтау үшін, фокус-топ сұхбат барысында айтылғанның бәрі фокус-топ сұхбатынан тыс ортақ жерде айтылмау тиіс.

#### **БАЙЛАНЫС АҚПАРАТЫ:**

**Сұрақтарыңыз:** Егер жүргізіліп отырған зерттеу жұмысының процесі, қауіпі мен артықшылықтары туралы сұрағыңыз немесе шағымыңыз болса, келесі байланыс құралдары арқылы зерттеушімен хабарласуыңызға болады: **Бриджит Гудман, [bridget.goodman@nu.edu.kz](mailto:bridget.goodman@nu.edu.kz).**

**ДЕРБЕС БАЙЛАНЫС АҚПАРАТТАРЫ:** Егер берілген зерттеу жұмысының жүргізілуімен қанағаттанбасаңыз немесе сұрақтарыңыз бен шағымдарыңыз болса, Назарбаев Университеті Жоғары Білім беру мектебінің Зерттеу Комитетімен көрсетілген байланыс құралдары арқылы хабарласуыңызға болады: +7 7172 70 93 59, электрондық пошта [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz).

Зерттеу жұмысына қатысуға келісіміңізді берсеңіз, берілген формаға қол қоюыңызды сұраймыз.

- Мен берілген формамен мұқият таныстым;
- Маған зерттеу жұмысының мақсаты мен оның процедурасы жайында толық ақпарат берілді;
- Жинақталған ақпарат пен құпия мәліметтерге тек зерттеушінің өзіне қолжетімді және мәлім болатынын толық түсінемін;
- Мен кез келген уақытта ешқандай түсініктемесіз зерттеу жұмысына қатысудан бас тартуыма болатынын түсінемін;
- Мен жоғарыда аталып өткен ақпаратты саналы түрде қабылдап, осы зерттеу жұмысына қатысуға өз келісімімді беремін.

Қолы: \_\_\_\_\_

Күні:

\_\_\_\_\_

## Appendix E

### Semi-Structured Interview Protocol Form for Teaching and Administrative Staff

#### Research topic: STEM and Social Sciences Students' Language-Oriented Academic Challenges in English Medium of Instruction (EMI) Programs: The Case of An International University in Kazakhstan

Date: \_\_\_\_\_  
 Time \_\_\_\_\_  
 Location \_\_\_\_\_  
 Interviewee \_\_\_\_\_  
 Consent form signed? \_\_\_\_\_

#### INSTRUCTIONS

Good morning (afternoon). My name is Akmaral Karabay and I am 2-year Master student in Multilingual Education, GSE. First of all, thank you for agreeing to participate in this study. You have been selected to speak here today because you have been identified as someone who has a great deal to share about students' academic challenges in EMI program in Higher Education. The purpose of the study is to investigate STEM and Social sciences students' challenges in EMI programs in universities as well as measures taken to help students to manage with them. The investigation of the given issue will help other institutions that have already had or plan to introduce EMI programs to predict possible students' academic challenges in different study programs and learn the experience of others in addressing the challenges.

#### TAPE RECORDER INSTRUCTIONS

The interview will last approximately 30 minutes. To facilitate my note-taking, I would like to audio tape our interview with your permission. The purpose of this is so that I can get all the details but at the same time be able to carry on an attentive conversation with you. For your information, only I and my thesis supervisor will be privy to the tapes which will be eventually destroyed after they are transcribed. I assure you that all your comments will remain confidential. I will be compiling a report which will contain all participants' comments without any reference to individuals.

#### CONSENT FORM INSTRUCTIONS

Before we start, you must sign a consent form where you can find information about the topic, purpose, risks and benefits of the study as well as my contacts. Please take a few minutes to read this consent (read and sign this consent form). (NOTE: After Interviewee returns consent form, turn tape recorder on.)

(Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm.)

Also, please, consider that you do not have to answer the questions that make you feel uncomfortable.

a. warm-up:

1. How long have you been working at this institution?

2. What programs have you taught in/overseas?

b. Guiding questions:

3. What are your students' academic challenges in the program?
4. How do students address their academic challenges?
5. How do you help students' to allay their academic challenges?
6. Is there something that you want to do to help students with their academic language challenges, but cannot?
7. How does your school/faculty help students' to cope with their academic challenges?
8. How does the university help students' to manage with their academic language challenges?
9. How do you evaluate institutional policy measures on students' challenges in EMI programs?
10. What can be done by institution to support students in coping with their academic challenges?
11. What advice would you give to new students in addressing their challenges?

Well that is the end of our interview. Thank you for your participation. I believe your input will be valuable to this research on investigating students' academic challenges in EMI program in Higher Education.

## Appendix F

### Semi-Structured Focus Group/In-depth Interview Protocol Form for Students

#### Research topic: STEM and Social Sciences Students' Language-Oriented

#### Academic Challenges in English Medium of Instruction (EMI) Programs: The Case of An International University in Kazakhstan

Date: \_\_\_\_\_

Time \_\_\_\_\_

Location \_\_\_\_\_

Interviewee \_\_\_\_\_

Consent form signed? \_\_\_\_\_

#### INSTRUCTIONS

Good morning (afternoon). My name is Akmaral Karabay and I am 2-year Master student in Multilingual Education, GSE. First of all, thank you for agreeing to participate in this study. The purpose of the study is to investigate STEM and Social sciences students' challenges in EMI programs in universities as well as measures taken to help students to manage with them. The investigation of the given issue will help other institutions that have already had or plan to introduce EMI programs to predict possible students' academic challenges in different study programs and learn the experience of others in addressing the challenges.

#### TAPE RECORDER INSTRUCTIONS

Well, the interview will last approximately one hour. To facilitate my note-taking, I would like to audio tape our interview if everyone here agrees. The purpose of this is so that I can get all the details but at the same time be able to carry on an attentive conversation with you. For your information, only I and my thesis supervisor will be privy to the tapes which will be eventually destroyed after they are transcribed. I assure you that all your comments will remain confidential. I will be compiling a report which will contain all participants' comments without any reference to individuals.

#### CONSENT FORM INSTRUCTIONS

Before we start, you must sign a consent form where you can find information about the topic, purpose, risks and benefits of the study as well as my contacts. Please take a few minutes to read it first. (NOTE: After Interviewees returns consent form, turn tape recorder on.)

(Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm.)

Also, please, consider that you do not have to answer the questions that make you feel uncomfortable.

a) Warm-up:

1. Finals are coming. How are feeling about it? Are you ready? If not (obviously most of them say no ☹), why?

b) Background questions:

2. What are your majors?

## c) Guiding questions:

3. Why did you choose to study in EMI program?
4. Did the program you study meet your expectations? Does your academic performance meet your expectations which you had when applying to the university?
5. Is it difficult to study in EMI program or not? If yes, then why? What makes it difficult?
6. What are your academic language challenges in EMI programs in universities?
7. How do you overcome them/manage with them?
8. What do teachers do to help you to manage the challenges? What don't they do?
9. What is done by the university to help you to overcome your academic language challenges?
10. How do you evaluate institutional policy measures on students' challenges in EMI programs? Are they effective?
11. What do you want to be done for students to help them to overcome the challenges?

## d) Concluding notes:

12. (for senior students only) What advice would you give to freshmen students in relation to studies?

Well that is the end of our interview. Now, it is time to get treats! Please, help yourselves.

Thank you for your participation. I believe your input will be valuable to this research on investigating students' academic challenges in EMI program in Higher Education. Good luck with finals! Hope, you will always find a way to manage your challenges!

## Appendix G

### Data Sample

#### Excerpt of Semi-Structured Interview with Teaching-Administrative Staff Member

*I: Proceeding to the next part of interview, the main language of instruction in our university is English, I would like to ask you – What benefits do you see for students who are non-native speakers of English to study in English?*

A: Ermm... well, obviously upon graduation if you are dealing, living and working in a global world, you are receiving an advantage of working in international companies, organizations, travelling... but also in terms of reading of literature which is predominantly published in English, text, many electronic resources on computers also published in English and obviously has a great advantage. Not just English is now a global language, it isn't even a language of my country from which I came from, but it is a language that Indians would speak with Filipinos. So, you know, it is a global language.

*I: And as we talked about benefits, now I would like to hear a bit about disadvantages? Are there disadvantages while studying in non-native language?*

A: Well, I think so. I've worked also in Abu-Dabi, in Middle East and with many international students in the UK. I am not saying that there are significant challenges to get the spirit of what said in publication to understand new ones in the co-workiness of English language sometimes... so to get a deep meaning of text, sometimes it is difficult.

*I: So, considering this difficulties, what academic challenges do students have in this university when studying in English?*

A: well, I don't teach, first of all. I don't see a lot of details but I have taught many-many students whose first language is not English. Challenges extend across four skills really: listening, you know, listening can be significant misunderstanding; secondly, in reading, similarly, thirdly in writing – it is a major challenge to write extended pieces of work and I am talking about a thesis, a dissertation, a project, critical analysis is very challenging in another language if I write it in French. And speaking to some extent in presentations, all in all I see less of this issue. For me the biggest challenge is in the area of writing – it is an area that I always with the team I have been working with in different parts of world put a lot of emphasis on the writing skills.

*I: As you are working in the area of quality enhancement and everything that relates to that, how do students address their challenges?*

A: Errrrmm... how do students address them? Well, again, because I am not actually involved in teaching anymore. I think... I think they respond them in different ways. Students who really try to... to do it honestly with the right spirit, I don't mean just about plagiarism and things like that, but really try to take calm the challenges, try to tackle them themselves. And I think our students love various types of shortcut, who will give professors many drafts for multiple edits and will give drafts to other people or use internet sources... you know the mechanisms. So, I think there variety approaches. The best one is to try to do it yourself with the right spirit.

*I: What about other ways?*

A: well, I am trying to select right words. It is not about cheating on this, honestly. It is about ways of doing things that are not a pure way of doing it. And they will try to... as I say often I have a lot of Arab students in the UK who gave me many-many drafts of the same piece of work. And it gets to the point that we actually write it ourselves. Now, obviously, giving drafts is a good thing, but not giving drafts every two days, yeah? Or putting it through translation system, or to electronic mechanisms, or giving it to other people outside the university. I have seen all of those.

*I: Okay, we have talked about how students cope with their academic language challenges, but now let us discuss university support. How does university help students to overcome their academic challenges?*

A: well, that's more... closer to my area really. How do we do it... well, I suppose if we take people into foundation we will pay a lot of attention ideally to developing basic skills in English across the four areas [language skills]. So, usually in many universities there are some sorts of foundation approach whether it is British University taking foreign students, in middle-east or here, where is some sort of foundation work goes are. I mean there various ways of doing this. It can be embedded within the curriculum. It can be addressed separately; for example, writing courses. You can do both... And we have conducted, for example, an institutional research that is looking at the English issue. First of all, we analyzed the nature of the problem what is the problem, and which skill is the problem... Is it writing, listening, reading or speaking. To what extent those skills either increase or decrease? So, I think you have got to analyze the problem first. And you will get a lot of people saying things, what we might call anecdotal evidence, that people have ... one strong person that has an opinion, yeah? What we should be doing is this. This is the problem. And now from that is not true you've got to do a data driven analysis of the problem. Then when you know what the problem is in detail you would probably give it to the place addresses it. So, for example, in engineering, in this university writing skills have been shown to decrease through throughout the years of the programs and the writing is the worst, only a little bit, at the end of the program than it was at the start. Why is that happening? You've got to ask a question. Why is that? Well... perhaps, they are not asked to write enough within their courses? Yeah? So, you know, then, some sort of quality we view within the program at the end of each year should focus on that area – that's what we are encouraging schools today and we'll do quality review, which looks at many-many things, but could look at the standard of English every year, from each year of the program... and then put thing in a place to address it,... so either you can bring in support English language teachers to support students for example in engineering. You can tell the professors teach the courses to make sure that they asking students to do assignments in English. Specifically the relevance, for example, doing calculations, and things like mathematics, when they are just counting, or you can give them... send them on writing courses, you know... and, for example, the new provost who has just been appointed here was in American university. I think in the American university system, that he has been used to, all students continue the writing courses, whatever subject they have been doing...