



Казанский национальный исследовательский  
технический университет им. А. Н. Туполева – КАИ

# Promoting Multilingualism and Multiculturalism within German-Russian Institute of Advanced Technologies



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Kazan National Research Technical University named after A.N.Tupolev-KAI

# City of Kazan, the Republic of Tatarstan

The best in Russia for

- highest quality of life
- business and investments
- sports

Kazan is home to

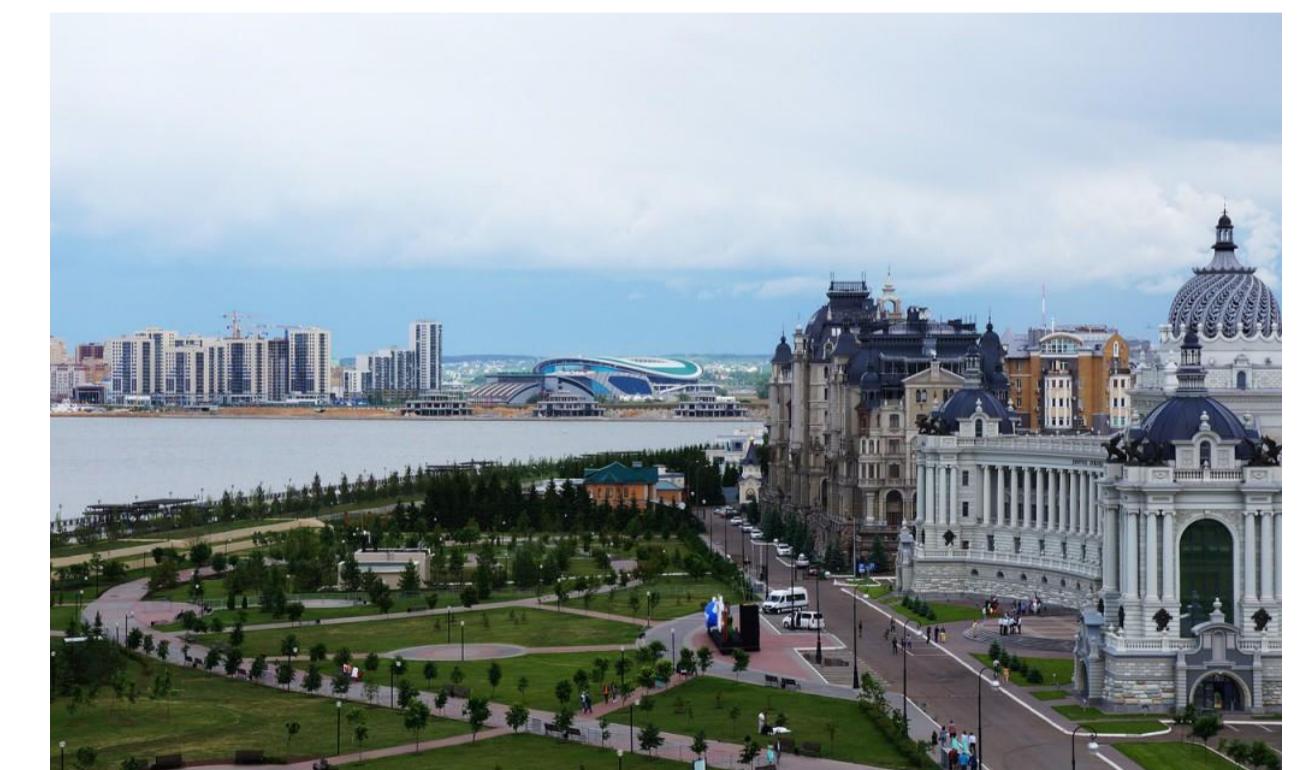
- 1.2 mln. people
- Ethnic Russian and Tatar peoples
- 114 nationalities
- 64 universities
- 210 000+ students
- Museums, Opera and Ballet house, Concert hall, theatres , UNESCO sights...



Kazan Kremlin



Puppet theatre



Waterfront



# Kazan National Research Technical University named after A.N.Tupolev-KAI

## Key facts:

- 15000 students, 100 000+ alumni
- 3000 faculty and staff
- 6 Institutes, 1 faculty; 67 research centers and laboratories
- 117 degree programs (BSc, Dipl./Ing., MSc, PhD)
- Main campus and 6 regional branches
- Engineering lyceum for gifted children, grades 7-11



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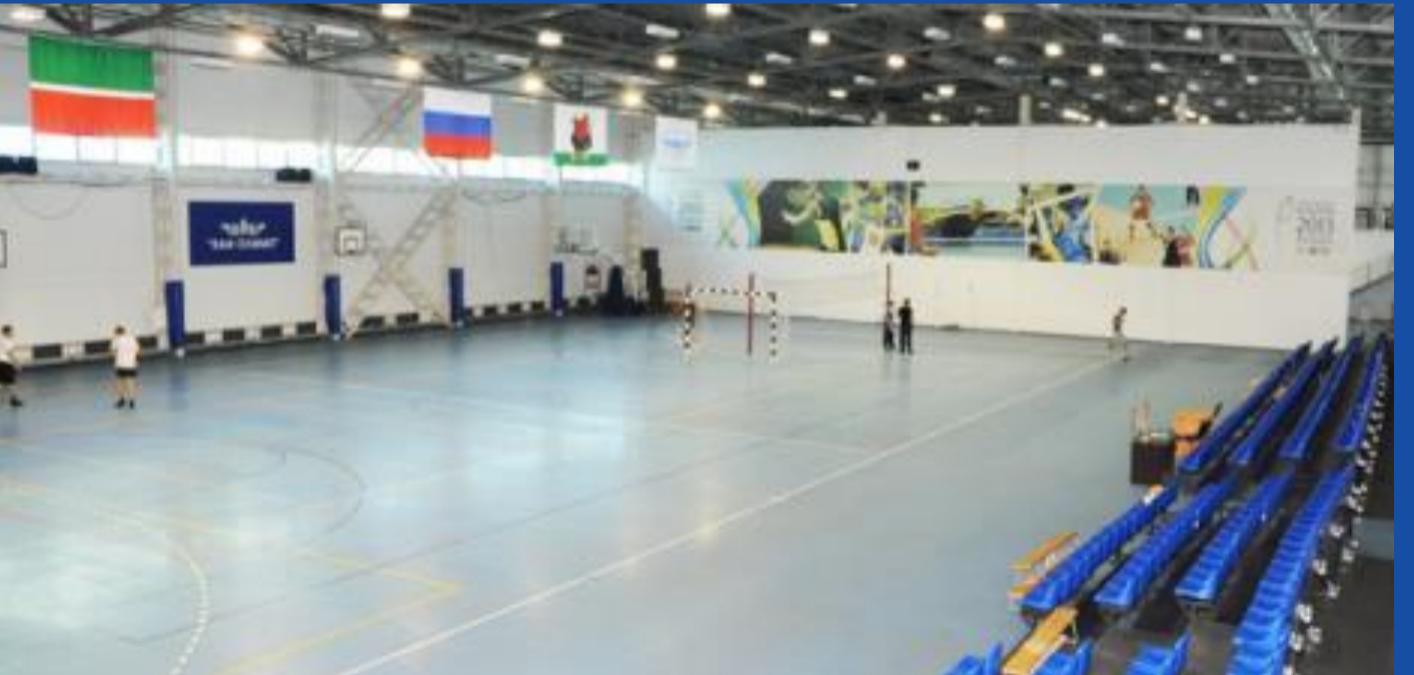
# Sports Facilities



Multifunctional Sports Complex "KAI-Olympus"



50-meter Swimming Pool



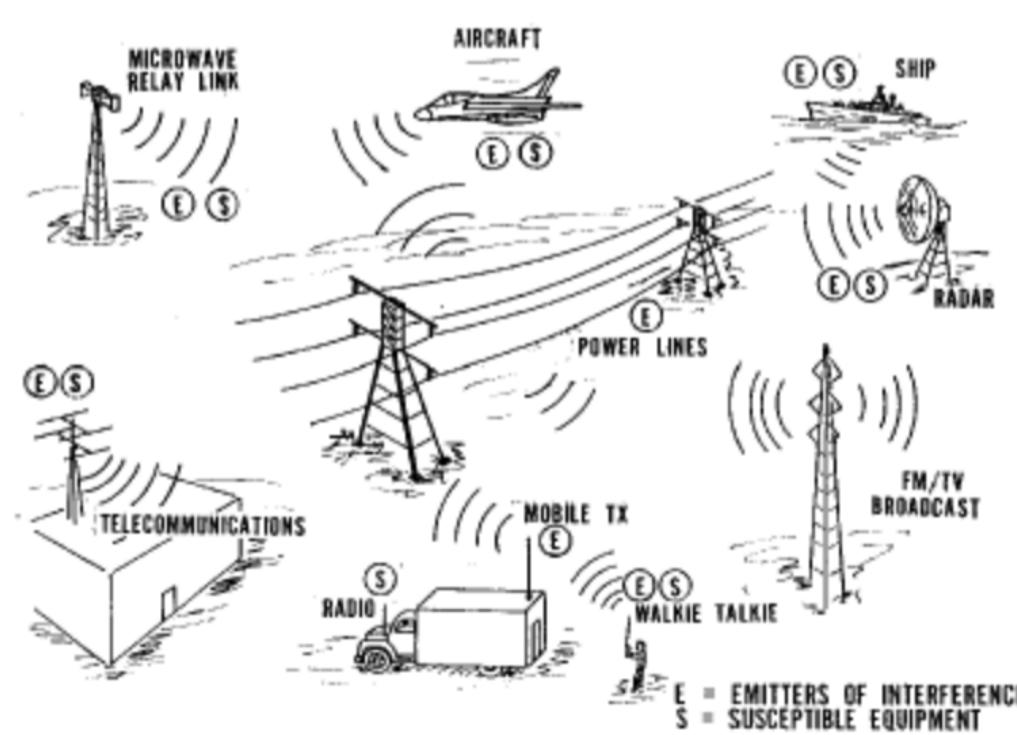
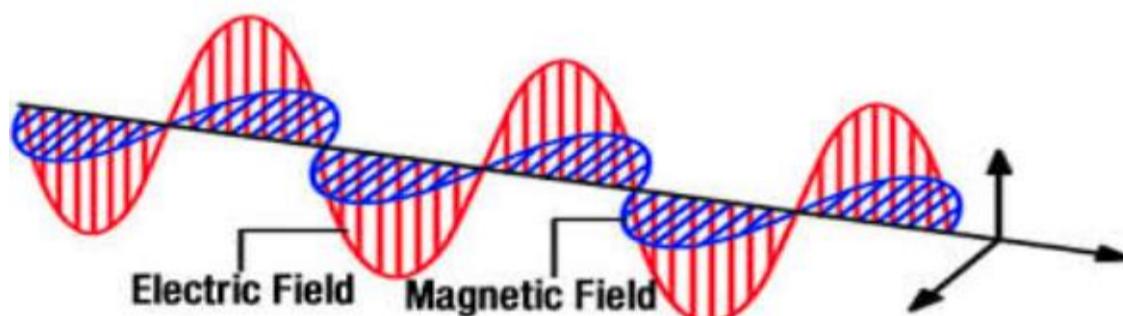
Indoor Playfield



Outdoor Playfield

# Faculties

- Aviation, Land Vehicles and Energy
- Automation and Electronic Instrumentation
- Computer Technologies and Information Security
- Radio Engineering and Telecommunications
- Physics and Mathematics
- Economics, Management and Social Technologies
- **German-Russian Institute of Advanced Technologies (GRIAT)**



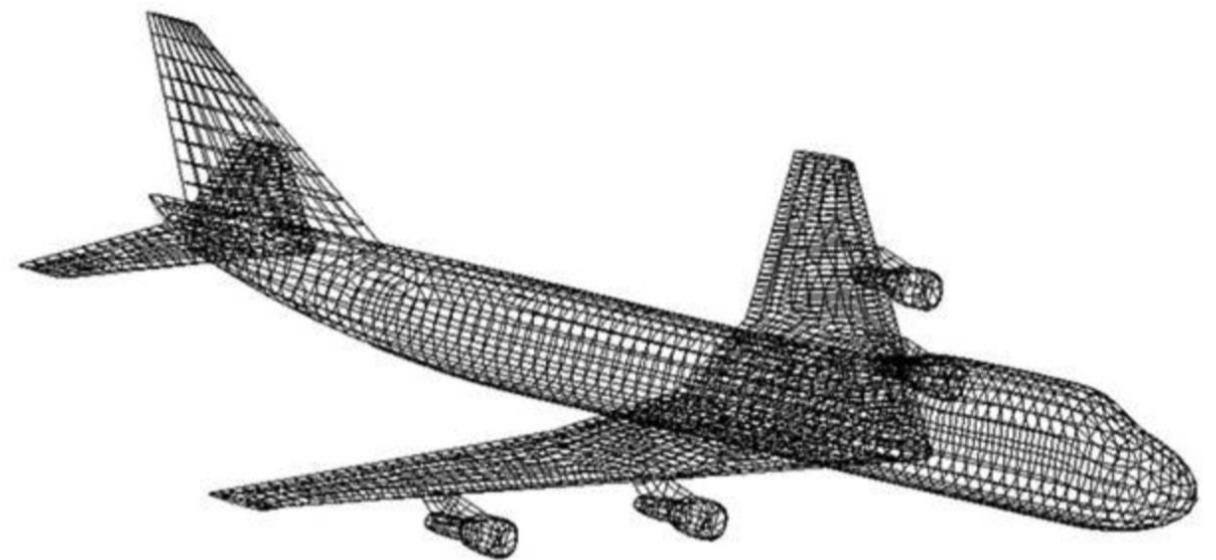
□ EMC and EMC Measurements



□ Digital Control Systems of Mobile Objects



□ Structural Mechanics



□ Database Systems



□ Antenna Engineering and Radiophotonics



## - GRIAT -

# Overview: Education, Research, Industry



### □ Engineering education in Russia according to the German standards:

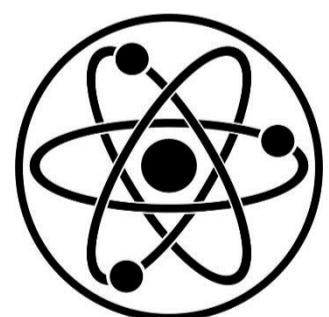
- German curriculum as the basis for MSc programs
- Educational cycle of all MSc Programs:



**German MSc**  
+  
**Russian MSc**

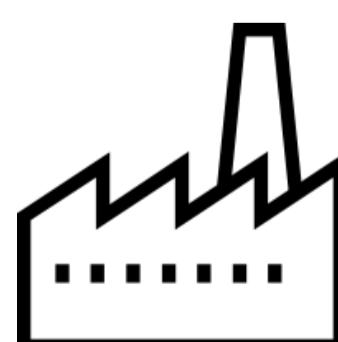
### □ Medium of Instruction: English + basics of German/Russian

### □ Flying Faculty: Two German professors per MSc program hold lectures at GRIAT 10-14 days per year



### □ Research with German universities

- Double degree PhD programs
- Academic and research mobility, Ru > < GE (Algarysh, Erasmus+ grants)



### □ Collaboration with German and Russian Industry

- Engineering Centers (SIEMENS, Thuringia, KUKA)
- Financial support with scholarships for MSc students (SIEMENS: 6 full scholarships)
- Laboratory support (e.g. SIEMENS: Big Data, Automatization and Electrical Engineering Lab)

# - GRIAT -

## Chronology



- Communications and Signal Processing
- Research in Computer and Systems Engineering
- Electrical Engineering and Information Technology
- Systems Engineering and Engineering Cybernetics

### First 4 double degree MSc Programs

2014

### Infrastructure & Documentation



2013

IDEA



2022

### +2 MSc Programs



- Chemical and Energy Engineering
- Automotive Engineering

### +1 MSc Program



- Embedded Systems



**RWTH AACHEN**  
UNIVERSITY

**Final goal:** GRIAT as a full bi-national university in Kazan

- 30-35 MSc/PhD Programs
- 10-12 R&D Centers
- 1000 Students

### +1 MSc Program



- Aircraft Engineering



## - GRIAT -

# Context for research study

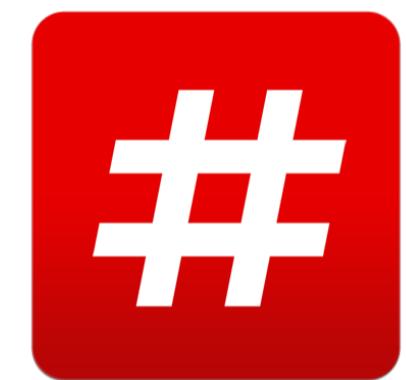


### Rationale

- internationalization
- visibility in the world
- diversity of research profile
- international students and scholars
- EMI programs increases world rankings
- articles in the Scopus indexed journals
- international students and scholars
- international grants

 30+, 12+ Flying faculty come to teach in Russia annually

 30+, 7+ Faculty go for research to Germany annually



### Recruiting Faculty

- Recruitment of Flying faculty
- Finding common research topics
- English language proficiency
- Motivation to develop EMI



### Challenges



### Solutions

- 4 groups: Beginner, Elementary, pre-intermediate, intermediate > Goal: B2 (CEF)
- Age range: 26-78
- Position: PhD student – department head/dean
- Experience: little to no international teaching/research experience



- Financial bonuses
- Decrease of teaching load
- Cultural programs in Russia



## - Study - Rationale

### GOAL:

To understand Russian and German professors' experiences with languages and cultures within GRIAT?

- Intellectual\*: to offer insights about the role of languages and cultures within international degree programs in EMI for non-native language speakers
- Practical\*: to offer recommendations for administrators and faculty for more effective teaching, research and collaboration within GRIAT

### RESEARCH QUESTION:

- What are linguistic and cultural challenges within international EMI degree programs for non-native speaking faculty?

\*Maxwell, J. (2008). *Designing Qualitative Study*. In L.Bickman and D.J.Rog (Eds.) *Handbook of applied social research methods* (2<sup>nd</sup> ed., pp.241-253).Thousand Oaks, CA: Sage Publications, Inc.

## - Study - Timeline

- 1. Exploratory study** (June 2016-December 2017)
  - Extensive literature review
  - Semi-structured interviews
  - Observations
- 2. Case study** (January 2018-June 2019)
  - Follow-up interviews
  - Class/meeting observations
  - Analysis of minutes, documents
  - Focus groups with students
- 3. Explanatory study** (June 2019-December 2019)
  - Survey

# - Study -

## Exploratory phase

### Observations:

- Meetings, personal conversations, emails, comments in EFL classes – writing memos

### Literature review:

- multilingualism in Europe and Germany, EMI ideologies, identities, EMI in engineering degree programs, professional English, bilingual/multilingualism at universities, neoliberalism, CLIL, EFL at workplace

### Interviews:

- Russian professors: 13
- German professors: 4

## - Study - Observations

1. Discussed at Meetings
  - Required level of English for students – B2
  - No requirements for German or Russian language (recommended A2 for students only)
  - Need to offer training about German culture and academics for students
2. Included in Policy Documents
  - For admission: no requirement for Russian part, strict English requirement for German part of studies
3. Emails/phone calls
  - Misunderstandings in emails

**NO direct comments about language skills or cultural expectations of professors**

## - Study -

# Literature Review Highlights: Multilingual education

- Models of bi-/multilingual education for school (Gogolin, 2013; Wright 2016; Gorter & Cenoz 2011; Busch, 2011)
  - Are there models for multilingual education in universities?
- Basque country offers in-service professional development, incentives for multilingual teachers
  - Are there any forms of PD for university faculty in EMI or other types of multilingual programs?
- Numerous studies of language transfer among young learners
  - Are there studies about language transfer among adult language learners in the multilingual education context?
- Hamburg bilingual schools (Duarte, 2011):
  - contrastive language and content area teaching, team teaching, intercultural features, dual language input, scaffolding techniques, constant construction and critical deconstruction of linguistic statements
  - Are these methods applicable to the tertiary multilingual context?

## - Study -

# Literature Review Highlights: EMI in Germany

- **Models of EMI:**
  - English only – all MSc programs
  - English and German – half BSc/half MSc
  - German with transition to English – half BSc/half MSc
    - Are there such models in other countries, ex.in Russia?
- **Linguistic challenges:**
  - Poor intelligibility due to different accents of English among students and faculty
  - Poor English language skills of students /faculty
    - “contamination effect” > students’ English proficiency is negatively effected through interaction with faculty who lack English skills
  - Multilingual practices are restricted to world languages (English, German, Spanish, Russian), small regional and minority languages remain at the bottom

## - Study -

# Literature Review Highlights: EMI in Germany

### ■ **Use of languages by German faculty**

- used German as a content scaffolding tool for Germans
- used German to build rapport and for social interactions, active use outside of class

### ■ **Language attitudes**

- German faculty and students: negative attitude to German's utility and role in the global arena
- International students: positive attitude to German language as a conduit to integration, membership and prestige

### ■ **Culture**

- international students lacked support for cultural integration, needed more catered German language and culture classes

## - Study -

# Literature Review Highlights: EMI around the world

### Official language policy

- Clear EMI policies in Japan, South Korea, Oman, UAE
- At professors' discretion in Puerto Rico

Language of materials:

- English everywhere

### Language requirements upon admission

- Nowhere for faculty
- In Japan and South Korea for students

### Faculty

- Hard to recruit, receive no language or content training, varied motivation
- Materials development: develop online corpus of lectures with authentic material with online interface for keyword search
- Build rapport through jokes, personal anecdotes via Korean language

\*Carrol 2016; Kim et al. 2017; Kunioshi et al. 2016; Leong 2017

## - Study -

# Interview findings: Conscious comparisons of languages

*«чем мне нравиться немецкий: как читается, так и пишется. Изучение нескольких устойчивых букв и сочетаний, их выучил и все, у них нет исключений. С точностью наоборот с английским делом, поэтому с немецким у меня было все нормально. Когда я пришел на английский, здесь беда какая: это ужасная грамматика, это ужасное произношение»*

*“Why I like German: you read how you write. Learn a few set words and combinations, memorize them all, they don’t have exceptions. With English, it is complete opposite, therefore I had no problems with German. When I came to English, it is such a disaster: this is horrible grammar, it is horrible pronunciation”*

*“Вот по-татарски же, да совсем все по-другому строится, и по-русски предложения”*

*«В португальском конструкция предложения, как в русском, т.е. в вопросительных можно интонацией»*

*«Мой базовый язык со школы это французский. Он достаточно простой...сейчас я сильно мне помешало»*

# Interview findings: Russian faculty questions the rationale for teaching Russian students in English

“Я считаю, что для нас, чтобы мы вели на русском это более рентабельно... Иностраницу объяснять по-английски это нормально, а русским зачем мне по-английски объяснять?”

*“I believe, that for us, to teach in the Russian language is more beneficial... To explain a foreigner in English it is ok, why would I explain Russians in English”*

«Студенты, в основном, русские, поэтому. Специфика преподавать на английском особо смысла нет. В сем смысл преподавать русским студентам на английском? Какие-то отдельные студенты, может быть, есть которым это надо, но точно это не 30 или не 40 человек, может быть несколько»

# Interview findings: The negative impact of teaching in another language

*“Преподавать математику на татарском языке, преподавать историю на татарском языке, потому что будет высок риск потери конкурентоспособности наших учеников, ну или студентов. ГРИНТ в этом же смысле тоже сложен для наших студентов, то есть оценки в среднем могут оказаться ниже, чем у студентов, обучающихся в русскоязычном, потому что потенциально двойной перевод. С немецким перевод на английский, с английским, если не понимает, переводит на русский. И возможна потеря нюансов”*

*“Teaching math in Tatar, teaching history in Tatar, because there would be a risk of losing competitiveness of our pupils, or students. GRIAT in this sense is also difficult for our students, that is the grades can be lower than those who study in the Russian-medium programs, because possibly there is a double translation. With Germans they translate into English, with English, if they don’t understand they translate to Russian. And nuances can be lost.”*

*“Я так понимаю, только 2 студента смогли сдать ТОЭФЛ или что они там сдавали, 1 курс. Ну, и соответственно, преподаватели тоже должны совершенствовать уровень, потому чтобы читать, потому что тяжело читать технические лекции, которые на русском тяжело объяснить студентам, что там происходит, а еще на английском”*

# Interview findings: German is recommended for students, not for faculty

“Ну и немецкий [язык нужен для студентов] на бытовом уровне... Они [студенты] же не на немецком будут изучать [в Германии]. У них вообще мозги сломают. Тем более сейчас все поголовно изучают английский»

*“German is needed for students on the basic level... They won’t study in German in Germany. Their brains will be broken [otherwise]. More so that everybody is now learning English”*

«На счет немецкого ничего не могу сказать, потому что, во-первых, я его никогда не изучал. Я думаю, что с точки зрения работы в Германии, я думаю, этот язык будет перспективен. Если оставаться в России, не знаю, возможно этот язык не понадобится в будущем»

«Я думаю, что наверное, не стоит [изучать немецкий язык]. Почему? Потому что у меня магистр вот должны защищаться в августе, он говорит, что у них в Германии в институте есть и немецкоязычные, есть немецкоговорящие группы, международные студенты. Мне кажется на должном уровне преподавать и немецкий, и английский языки даже разным людям будет сложно»

## - Study -

# Interview findings: Cultural differences in academic context

*“non-academic topics. More misunderstandings not connected to language, but to cultural standards. For example, I asked to send me an email, I get a document back, not even hello in that email-reply.”*

*“in emails not clear what he means. He has a strange habit of putting a lot of people in CC. Why so often so many random people are CCed?”*

*“When a young person goes to another country maybe it is a bit difficult, because I think in Russia there is much more respect to professors than there is in Germany”*

*“There was a difference from the referee’s point from the Russian and German side. From Russian side the thesis was judged as excellent. But later when we had the thesis defense we agreed about the final grade”.*

## - Study -

# Interview findings: Cultural differences in academic context

*«ну, например, у нас было видео, когда ... как правильно делать презентацию. И там автор ролика убеждал, что раздаточный материал не нужно раздавать в начале, а нужно в конце... И у нас сразу такой поднялся... Как?! Мы же на защиту всегда все раздаем! Все цифры должны быть у человека перед глазами, то есть, мировоззренческие споры»*

*“Сейчас в любом случае комиссии дают распечатки этой презентации. Может кто-то не видит, может кому-то подумать надо. Мы считаем, что вот так оптимальнее. На Западе считают, что нет. Вот ты внимательно все слушаешь, вот как ты говоришь, давайте я расскажу, а вы зададите вопросы. А у нас перелистав, тебе понятно все сразу. Тебе не надо этот доклад слушать, тратить время. Можно проверить почту быстренько, а когда приходит время вопроса, задаешь, который хочешь задать. А не так, чтобы сидеть и выуживать.”*

## - Study -

# Interview findings: Difficult to assess students' comprehension

*«The language skills of students are difficult to judge, I had the feeling that they understood, but they are reluctant to speak”*

*“Им [студентам] непривычно читать научные статьи, плотность информации другая, надо понимать не только язык, но и мысль. Сложно оценить, что студентам непонятно, язык или содержание статьи”*

# - Olga Zhukova's PhD dissertation -

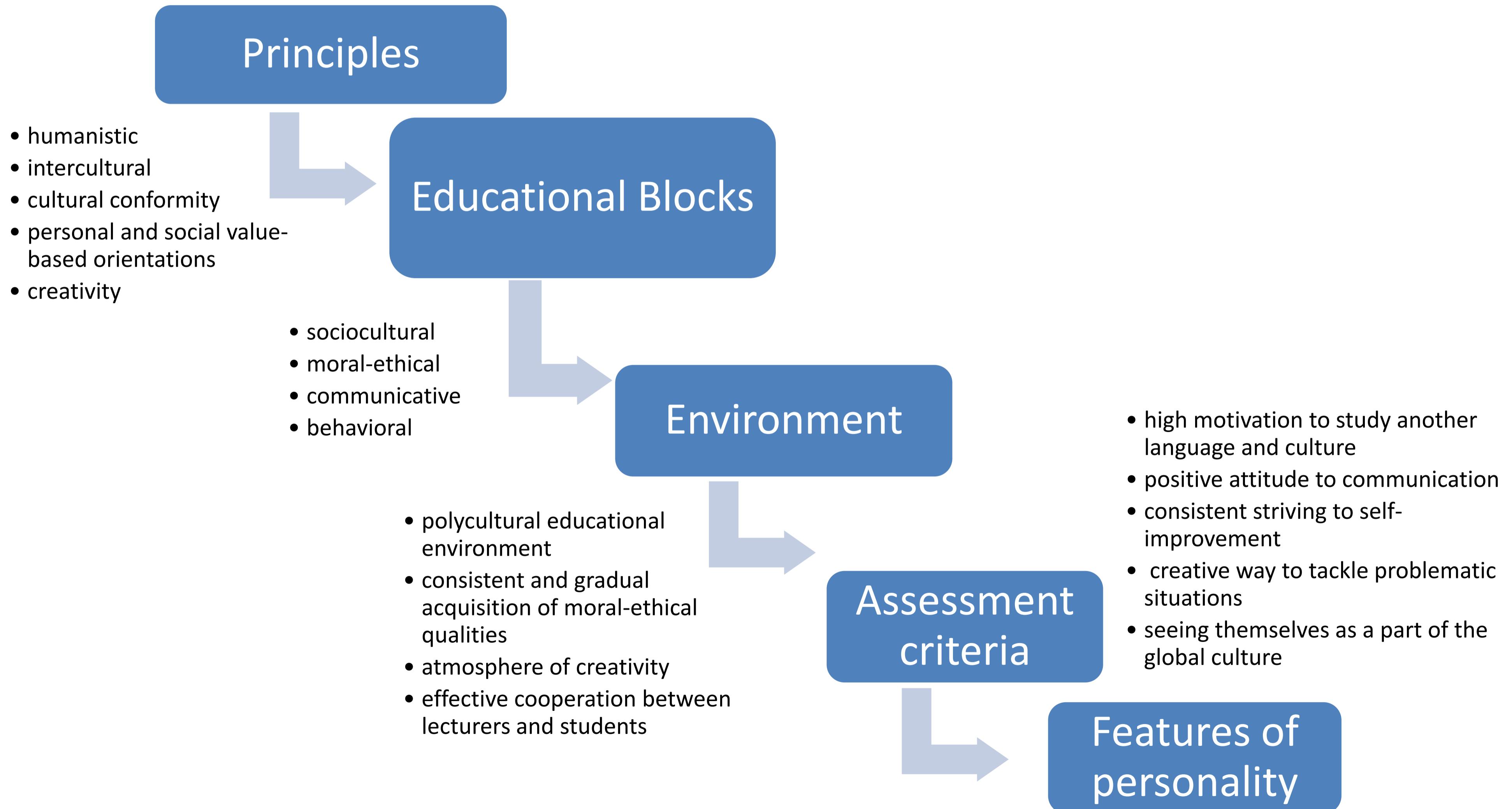
## Research topic

### **Cultural aspects of educating the student as „A person of culture“:**

A person of culture is a free individual able to determine his/her identity in the world of cultural diversity. It is a person who respects people with different views, religions, languages, professions, etc. In order to achieve this goal, it is necessary to develop certain features, characterizing students as people of culture: a humanistic worldview, tolerance, sociability, intellectuality, diligence, flexibility, creativity, reflection, etc.

## - Olga Zhukova's PhD dissertation -

# Pedagogical Model for training a “person of culture”



# - Olga Zhukova's PhD dissertation -

## Key Characteristics of a “person of culture”

1. humanistic mindset
2. tolerance
3. intellectuality
4. empathy
5. sociability
6. flexibility
7. creativity
8. initiativity
9. Self-improvement
10. optimism
11. diligence
12. reflection

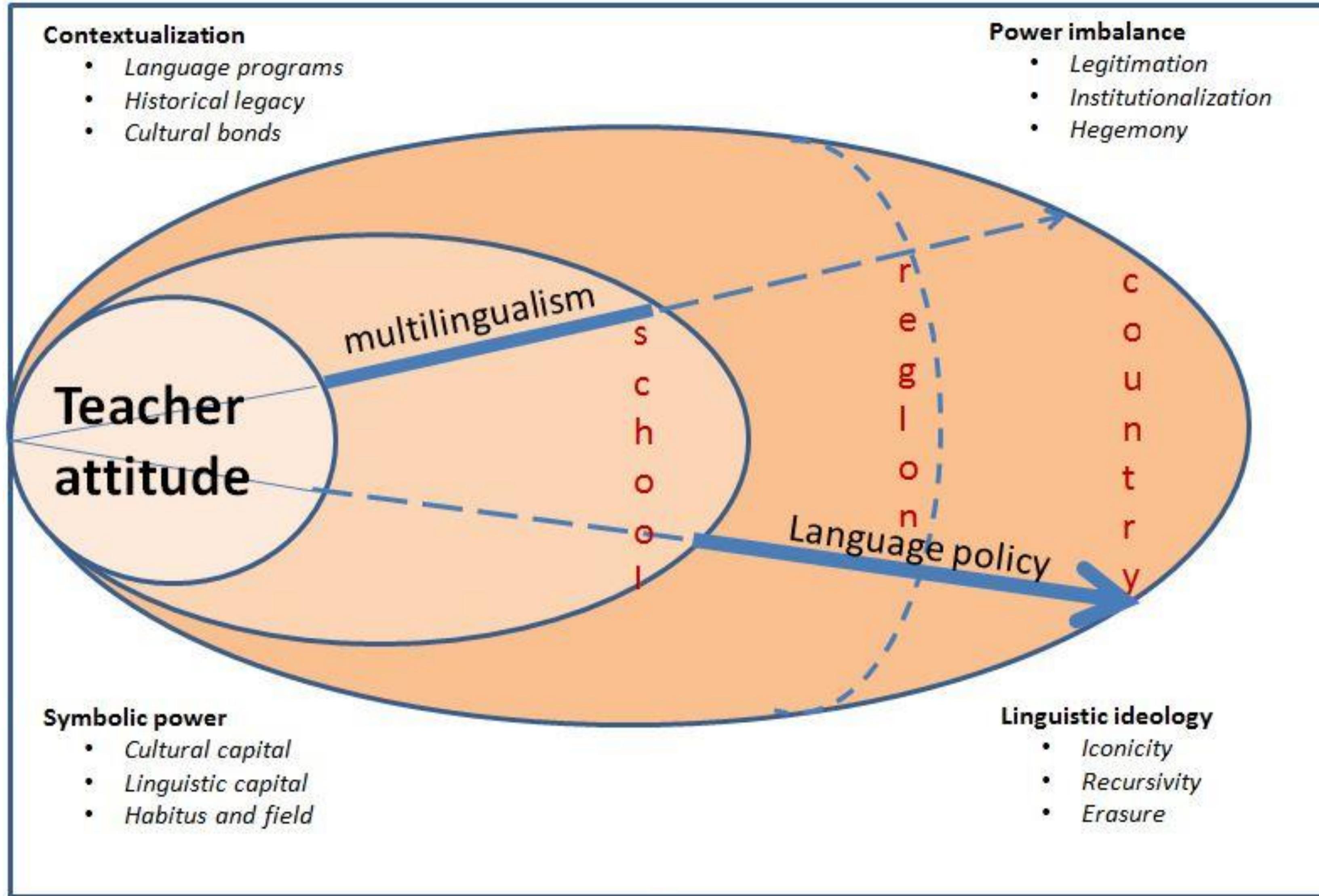
# - Alsu Gilmetdinova's PhD dissertation -

## Overview

- Title** Elementary school teachers' attitudes towards Russian-Tatar-English multilingualism and language policy in Tatarstan, Russia
- Research question** What are elementary school teachers' attitudes to multilingualism and language policy in a Tatar-medium, Russian-medium school and a school with intensive English language program?
- Data sources** Schools: Tatar-medium school, Russian-medium school, Russian-medium school with intensive English language program; 25 teacher interviews; federal, regional and school language policies, 15 hours of classroom observations, field notes

# - Alsu Gilmetdinova's PhD dissertation -

## Conceptual model



# - Alsu Gilmetdinova's PhD dissertation - Findings

## Policies

- Federal: Russian as “uniting” language, some support for Russian-English bilingualism, lip-service to Russian-regional language bilingualism.
- Regional: Russian-Tatar bilingualism, yet lack specific provisions to reverse the language shift.
- School: no mention of language.

## Schools

- Teachers embrace and seldom contest language policies set within the school, crucial role is played by school administration who set the opaque language policies
- Having intensive English language programs or teaching in Tatar positively impacts teachers' attitudes to multilingualism
- Teachers often quote parents' opinions about language only if parents support their language views

## - Study -

# Results of the Research Visit at Hamburg University

### Research

- Transcribe 5 interviews
- Do literature review
- Learn about research of faculty and PhD students
  - prof.Ingrid Gogolin, prof. Drorit Lengyel, Dr.Marion Krause
  - Dr.Yunus Eryaman
  - Tobias Schroedler, Jessica Terese Mueller
  - PhD students: Irina Usanova, Gulden Akgun, Antje Hansen, etc.

### Professional associations and collaboration

- WERA, EERA, IFAP
- International exchange programs, PIASTA, draft MoU

### Teaching

- Visit Research Methods class of Dr.Lengyel
- MOTION

## - Study -

# Plans for future collaboration

### Research

- Review research literature, resources and links
  - Findings from the 4-tier study on multilingualism at UHH

### Professional associations and collaboration

- Attend the conference WERA, EERA, IFAP
- Arrange student and faculty exchange programs

### Teaching

- Come back to study bilingual education programs in schools



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**Thank you!**

**Vielen Dank!**

**Спасибо!**

**Рэхмэт!**