# UNIVERSIDADE FEDERAL DE MINAS GERAIS ESCOLA DE CIÊNCIA DA INFORMAÇÃO PROGRAMA DE PÓS-GRADUAÇÃO EM GESTÃO & ORGANIZAÇÃO DO CONHECIMENTO

DANIELLE DO CARMO PIMENTA RIOGA

INFORMATION NEEDS OF INTERNATIONAL STUDENTS: THE CASE OF THE FEDERAL UNIVERSITY OF MINAS GERAIS

## UNIVERSIDADE FEDERAL DE MINAS GERAIS ESCOLA DE CIÊNCIA DA INFORMAÇÃO PROGRAMA DE PÓS-GRADUAÇÃO EM GESTÃO & ORGANIZAÇÃO DO CONHECIMENTO

## INFORMATION NEEDS OF INTERNATIONAL STUDENTS: THE CASE OF THE FEDERAL UNIVERSITY OF MINAS GERAIS

Thesis submitted to the Graduate Program in Knowledge Organization and Management of the School of Information Science at the Federal University of Minas Gerais, in partial fulfilment of the requirements for the degree of Doctor in Information Science.

Line of Research: Management of Information and Communication Technology

Area of Concentration: Representation of Knowledge.

Advisor: Renata Maria Abrantes Baracho

Co-Advisor: Dagobert Soergel

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# FOLHA DE APROVAÇÃO

#### NECESSIDADES INFORMACIONAIS DOS ESTUDANTES INTERNACIONAIS: O CASO DA UNIVERSIDADE FEDERAL DE MINAS GERAIS

#### DANIELLE DO CARMO PIMENTA RIOGA

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#### ATA DA DEFESA DE TESE DA ALUNA

### DANIELLE DO CARMO PIMENTA RIOGA

Realizou-se, no dia 25 de fevereiro de 2022, às 13:00 horas, por videoconferência, da Universidade Federal de Minas Gerais, a defesa de tese, intitulada NECESSIDADES INFORMACIONAIS DOS ESTUDANTES INTERNACIONAIS: O CASO DA UNIVERSIDADE FEDERAL DE MINAS GERAIS, apresentada por DANIELLE DO CARMO PIMENTA RIOGA, número de registro 2017659970, graduada no curso de DESENHO INDUSTRIAL, como requisito parcial para a obtenção do grau de Doutor em GESTÃO E ORGANIZAÇÃO DO CONHECIMENTO, à seguinte Comissão Examinadora: Prof(a). Renata Maria Abrantes Baracho Porto -Escola de Arquitetura/UFMG (Orientadora), Prof(a). Dagobert Soergel - University at Buffalo (Coorientador), Prof(a), Ricardo Rodrigues Barbosa - Aposentado/UFMG, Prof(a), Gercina Ângela de Lima - ECI/UFMG, Prof(a). Frederick Marinus Constant Van Amstel - Universidade Tecnológica Federal do Paraná, Prof(a). Fernanda Farinelli - PUC, Prof(a). Beatriz Valadares Cendón - Aposentada/UFMG.

A Comissão considerou a tese:

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- ( ) Reprovada

Finalizados os trabalhos, lavrei a presente ata que, lida e aprovada, vai assinada por mim e pelos membros da Comissão.

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Eu dedico este trabalho aos meus pais, Vicente Rioga e Iracema do Carmo Pimenta Rioga pelo amor incondicional na sua missão familiar.

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God, grant me the serenity to accept the things I cannot change, courage to change the things I can, and the wisdom to know the difference. Reinhold Niebuhr (1932)

### **RESUMO**

A Internacionalização da Educação destaca o aumento no fluxo de estudantes internacionais nas universidades de países mais desenvolvidos. Porém, é crescente a procura por outros destinos, como universidades públicas brasileiras. As necessidades informacionais desses estudantes ainda é um tópico pouco estudado, mas relevante no contexto da Ciência da Informação e da Internacionalização da Educação. Essa pesquisa deseja contribuir com as áreas mencionadas, devido à carência de estudos sobre estudantes internacionais da pós-graduação e de uma análise que contemple as características e peculiaridades de uma universidade pública brasileira. Nesse contexto, as perguntas de pesquisa são: 1) quais são as características e necessidades informacionais dos estudantes internacionais da pós-graduação da UFMG? 2) quais os requisitos que podem ser sugeridos para melhorar os meios de Tecnologias da Informação e Comunicação (TICs) da UFMG? O objetivo principal é compreender as características e necessidades de informação dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais, a fim de contribuir para o processo de internacionalização da educação da instituição. A pesquisa é de natureza aplicada, abordagem qualitativa e quantitativa – métodos mistos e objetivo exploratório. Foram conciliados diferentes métodos de coleta de dados, abarcando levantamentos bibliográficos e documentais, entrevistas semiestruturadas e questionários. As nove entrevistas foram analisadas no software NVivo e os cinquenta e um questionários no software SPSS. A Metodologia utilizada foi a Design Science Research, associada aos métodos mistos. Partindo-se dessa perspectiva, a revisão de literatura foi baseada em quatro pilares teóricos: Comportamento Informacional Humano, Internacionalização da Educação do Ensino Superior, Comportamento Informacional do Estudante Internacional e Internacionalização das Universidades Brasileiras - Programas de Pós-graduação. Segundo a Ciência da Informação, a pesquisa tem caráter interdisciplinar, envolvendo conceitos e técnicas de duas áreas do conhecimento: Ciência da Informação e Internacionalização da Educação. Os resultados gerados foram a delimitação das características e necessidades informacionais do estudante internacional da Pós-Graduação; infográfico com o fluxo Informacional sobre como se tornar aluno(a) da Pós-Graduação da UFMG; mapeamento de networks de suporte dos alunos(as) da UFMG; apresentação da proposta de soluções para atrair novos(a) candidatos(as) internacionais, considerando suas necessidades informacionais; sugestão de recomendações de melhorias das Tecnologias da Informação e Comunicação da UFMG.

**Palavras-chave:** Necessidades Informacionais dos Estudantes Internacionais; Internacionalização da Educação; Estudante Internacional da Pós-graduação; Tecnologias da Informação e Comunicação; Design Science Research.

### **ABSTRACT**

The Internationalization of Education highlights the increase in the flow of international students at universities in more developed countries. However, there is a growing demand for other destinations, such as Brazilian public universities. The information needs of these students lack further studies. However, it is still relevant in the context of Information Science and the Internationalization of Education. This research aims to contribute to the areas above, due to the deficiency of studies mentioned, in addition to an analysis that contemplates the characteristics and peculiarities of a Brazilian public university. In this context, the research questions are: 1) what are the characteristics and information needs of international graduate students studying at UFMG? 2) what requirements can be suggested to improve UFMG's Information and Communication Technologies (ICTs)? The main objective is to understand and map the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG to contribute to the institution's education internationalization process. The research has an applied nature, with a qualitative and quantitative approach – mixed methods and an exploratory objective. Different data collection methods were reconciled, including bibliographic and documentary background, semistructured interviews, and questionnaire. The nine interviews were analyzed in the NVivo software and the fifty-one questionnaires using the SPSS software.

The methodology used was Design Science Research, associated with mixed methods. From this perspective, the literature review was based on four theoretical pillars: Human Informational Behavior, Internationalization of Higher Education, Information Behavior of International Students, and Internationalization of Brazilian Universities - Graduate Programs. According to Information Science, the research has an interdisciplinary character, involving concepts and techniques from two areas of knowledge: Information Science and Internationalization of Education. All the proposed objectives were reached and generated as results: definition of the characteristics and information needs of international graduate students at UFMG; infographic with the information flow - enrollment at a UFMG graduate program; mapping of support networks used by the international graduate students at UFMG; solutions proposal to attract new international candidates considering their information needs; UFMG Information and Communication Technologies Improvements Recommendations.

**Keywords:** Information Needs of International Students; Internationalization of Education; International Graduate Student; Information and Communication Technologies; Design Science Research.

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### LIST OF ABREVIATIONS AND ACRONYMS

ASSOCIAÇÃO NACIONAL DE PÓS-GRADUAÇÃO (IN PORTUGUESE) OR GRADUATE STUDENTS **ANPG** 

**ASSOCIATION** 

**BRICS** BRAZIL, RUSSIA, INDIA, CHINA AND SOUTH AFRICA

COORDENAÇÃO DE APERFEIÇOAMENTO DE PESSOAL DE NÍVEL SUPERIOR (IN PORTUGUESE) OR HIGHER **CAPES** 

EDUCATION PERSONNEL IMPROVEMENT COORDINATION

CAV AUDIOVISUAL CENTER

COORDENAÇÃO DE COMUNICAÇÃO SOCIAL (IN PORTUGUESE) OR SOCIAL COMMUNICATION CCS

COORDINATION

**CELPE-BRAS** PORTUGUESE LANGUAGE PROFICIENCY EXAMINATION

CONSELHO NACIONAL DE DESENVOLVIMENTO CIENTÍFICO E TECNOLÓGICO (IN PORTUGUESE) OR **CNPQ** 

NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT

**CRIS** CENTER FOR INTERNATIONAL HEALTH RELATIONS

COEP COMITÊ DE ÉTICA DE PESQUISA DESIGN SCIENCE RESEARCH DSR

DRI DIRETORIA DE RELAÇÕES INTERNACIONAIS (IN PORTUGUESE) OR INTERNATIONAL RELATIONS OFFICE

Ε **ENTREVISTADO** 

FUNDAÇÃO OSWALDO CRUZ (IN PORTUGUESE) OSWALDO CRUZ FOUNDATION **FIOCRUZ** 

HEI HIGHER EDUCATION INSTITUTION

IAU INTERNATIONAL ASSOCIATION OF UNIVERSITIES

ICO INSITUTO OSWALDO CRUZ (IN PORTUGUESE) OSWALDO CRUZ INSTITUTE

**ICTS** INFORMATION AND COMMUNICATION TECHNOLOGIES

IS INFORMATION SCIENCE

LIS LIBRARY AND INFORMATION SCIENCE

LISA LIBRARY & INFORMATION SCIENCE ABSTRACTS

LIST LIBRARY, INFORMATION SCIENCE & TECHNOLOGY ABSTRACTS WITH FULL TEXT MEC MINISTÉRIO DA EDUCAÇÃO (IN PORTUGUESE) OR MINISTRY OF EDUCATION

MRE MINISTÉRIO DAS RELAÇÕES EXTERIORES (IN PORTUGUESE) OR MINISTRY OF FOREIGN RELATIONS

ORGANIZAÇÃO PARA A COOPERAÇÃO E DESENVOLVIMENTO ECONÔMICO (IN PORTUGUESE) OR OCDE

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

PROGRAMA DE ESTUDANTES-CONVÊNIO DE GRADUAÇÃO (IN PORTUGUESE) OR GRADUATE STUDENTS-PEC-G CONVENTION PROGRAM

PROGRAMA DE ESTUDANTES-CONVÊNIO DE PÓS-GRADUAÇÃO (IN PORTUGUESE) OR STUDENT PFC-PG

PROGRAM - UNDERGRADUATE AGREEMENT

PLANO DE DESENVOLVIMENTO INSTITUCIONAL OR INSTITUTIONAL DEVELOPMENT PLAN PDI

PLANO NACIONAL DE PÓS-GRADUAÇÃO (IN PORTUGUESE) OR PLAN FOR GRADUATE PROGRAMS **PNPG** 

**SCOPUS** REFERENCE AND CITATION DATABASE

SOCIAL NETWORK SERVICES **SNSS** 

UNIVERSIDADE FEDERAL DE MINAS GERAIS (IN PORTUGUESE) OR FEDERAL UNIVERSITY OF MINAS **UFMG** 

UMD LINIVERSITY OF MARYLAND

**UNESCO** UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

USA UNITED STATES OF AMERICA

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### 1 INTRODUCTION

According to UNESCO (2015), the number of international students worldwide has risen in Higher Education Institutions (HEI). "Emerging economies will have around 63 million more university students in 2025 than today, and the number worldwide is expected to more than double to 262 million by the same year." (UNESCO, 2015, p. 3). Nearly all this progress will happen in industrializing areas, more than half in China and India. As a result, student migration, brain circulation, and the internationalization of universities have never been higher.

The Federal University of Minas Gerais (UFMG) is inserted in the world educational scenario in various ways. Up to December, 2021 the institution had a total of 44,672 students. Furthermore, according to the most recent count, in 2017, there were 1,021 international undergraduate and graduate students at UFMG. Considering this context, the UFMG Institutional Development Plan 2018-2023 (UFMG, 2018a) has as its primary objective in its internationalization process:

Seeking academic excellence, based on the highest quality of international partnerships to be established, building a high institutional profile for the University, welcoming the difference, harboring considerable knowledge, and contributing to the constitution of a multicultural academic community open to the community. Diversity PDI - internationalization 2018-2023 (UFMG, 2018b, p. 179).

To achieve this goal, various departments and activities are involved in daily procedures throughout the year. However, the International Relations Office (DRI) stands out as the central structure in operation and insertion of UFMG in the world panorama, connecting the university to foreign institutions and enabling various academic contacts.

This researcher's first interaction with DRI was through her studies related to the university's internationalization process in pursuit of a Master's Degree of Information Science, initiated during her master's program (2015-2016). The foundation of this research was initially developed in the dissertation entitled: "A Model of Information Management for the context of university internationalization: a case study of UFMG" (RIOGA, 2017). Data collected in this research identified information gaps faced by international students at UFMG. For example, these students from different exchange programs pointed out the lack of access to information during the exchange process.

The motivation for this doctoral research stems from the need to seek alternatives to increase interactivity and the exchange of information among international students of graduate

courses at UFMG, which is justified by the lack of studies aimed at this audience by authors found in the Theoretical Framework, specifically on Brazilian universities.

In the specific case of international applicants, their process to become a graduate student at UFMG involves three stages:

- a) Pre-arrival 1. Contact with the Graduate Program and the application process,
- b) Pre-arrival 2. Approval of application and procedures for acquiring the visa,
- c) In person 3. Enrollment and admission as an international graduate student at UFMG.

Through the steps described, this student would be a regular graduate student (when completing a master's or doctoral degree) or an exchange program student in the graduate program (for a short period). In both cases there is a need for information in every step of the processes.

Among the worldwide flow of people, the international students move for different reasons. On this issue, Caidi, Allard, and Quirke (2010) state that with millions of people migrating to another country and needing to establish and "integrate" in the host society, there are significant opportunities and challenges for the information professions in terms of understanding how immigrants seek information, what their needs are, what practices they have adopted and adapted. In addition, the possible barriers they encounter along the way.

Therefore, the main objective of this research is to understand the characteristics and information needs of international graduate students at the Federal University of Minas Gerais to contribute to the institution's education internationalization process.

It starts from a broader context, with a conceptual, theoretical foundation on experiences in other Brazilian universities and a global panorama that addresses the different cultures of these students in universities abroad. The literature review was based on four main points: Human Information Behavior, Higher Education Internationalization, International Student Information Behavior, and, at last, Higher Education Internationalization in Brazil – Graduate Programs.

This research will span two areas: Information Science (IS) and Internationalization of Education; these areas interact with each other, having the information behavior of international students as a fundamental background. Many authors describe IS as an interdisciplinary social science; Saracevic (1992) emphasizes the constant evolution of the field since its inception:

First, information science is interdisciplinary in nature, however, the relations with various disciplines are changing. The interdisciplinary evolution is far from over. Second, information science is inexorably connected to information technology. A technological imperative is compelling and constraining the evolution of information science, as is the evolution of

information society. Third, information science is, with many other fields, an active participant in the evolution of information society. Information science has a strong social and human dimension, above and beyond the technology. These characteristics are a framework for understanding the past, present and future of information science (SARACEVIC, 1992, p. 2).

From this foundation, UFMG was defined as a study environment and institution representing Brazilian public universities and the insertion of research in the campus context. The thesis will bring together a group of international graduate students in Brazil based on data collected from students who voluntarily participated in the research through semi-structured interviews and an online questionnaire. Subsequently, the researcher analyzed the data to inform the development of an information flow model used in the UFMG international application/admission process for graduate studies. Additional outputs included an informal support network map for international graduate students at UFMG, recruitment campaign proposals for official communication to increase UFMG's market recognition and desirability among international candidates, and user experience insights to enhance official UFMG communication sources.

#### Research Problem

With the increase in the mobility of people and the flow of information around the world, the internationalization of education registered more significant numbers over time. As a result, countries previously not the preferred destination for international students have gained more visibility, such as *Brazil*, *Russia*, *India*, *China and South Africa* - *BRICS* (DE WIT, 2017).

The information needs of international students begin when they become interested in studying at a particular university. They use the university's website and the graduate program website as a source of information, mainly during the application process. In addition, universities' websites, social networks, and a variety of communication methods with people directly or indirectly involved with the university can be used as sources of information. Information needs vary from one candidate to another and how they adopt and adapt skills is unique through their studies. The international candidate's path is defined in three stages: Prearrival, initial interest through formal visa process; Settlement, securing enrollment and admissions through financials; and Adjustment, integrating into the program.

In the case of international graduate candidates, the importance of information tends to increase since most of these students go through several processes simultaneously. Thus, when the university projects itself nationally or internationally, the internet and the media are essential

tools to spread its visual identity, culture, values, reputation, productions, and connect people worldwide.

Consequently, the Higher Education Institution (HEI) can attract researchers, professors, and students from different countries. As the internet creates the possibility of connecting these candidates abroad, not only is language a barrier to comprehending platforms and social media but also how interfaces communicate through web design, organization of information, colors, icons that help or mislead international users to understand application processes, deadlines, timelines, required documents, and future research opportunities. So, the students may access diverse information sources according to his/her information needs. There are procedures that take place throughout the year, according to the schedule of each graduate program.

Typically, the candidate completes the entire pre-arrival process online, except the visa process, depending on the country. In the subsequent stages, to become a UFMG graduate student, there are online and in-person processes when the student is already at UFMG. In many cases, the student can go through the application process at a distance, coming to the university only after the application is approved. In this case, the application procedures would go through virtual communication and process management.

The motivation of graduate students varies depending on their research interest, contact with a former advisor, or the program offerings on websites that might attract him/her. Usually, this action would be followed by this user or future graduate student looking for specific graduate programs in their field of study. These actions would be part of the decision-making process about where to study, country, graduate program, and university, among other relevant points.

This research investigates international graduate students' information needs through the lens of UFMG as a Brazilian public university. The lack of information from the international graduate students' view regarding essential university processes and daily information needs is a central problem of this research. International graduate students were selected as an object of study based on the lack of research, especially those who come to study in Brazil. Research on the matter generally focuses on international undergraduate students who study in the United States, Canada, or Europe; and most literature involving Brazilian students, features undergraduates who are going to study abroad. In this scenario, UFMG is one of the most recognized universities in the country, who receives a lot of international students.

In addition to the UFMG and graduate program website, other sources of information can be used to support international candidates through the program selection and the

onboarding stages. The quality of information of the Graduate Program website and other supporting sources can be pivotal in international candidates' decision-making process. Limited information sources or a program website lacking essential detail, user-friendly functionality, and language support can prove problematic for international candidates and unfavorable for the potential institution.

We adopted the expression Information and Communication Technologies (ICTs) in this thesis following the paper "You Don't Feel That You're So Far Away": Information Sharing, Technology Use, and Settlement of International Student Immigrants written by Worral, Ballantyne, and Kendall (2019). According to the authors, "Social media and ICTs may have significant impacts on international students' information sharing and settlement, their everyday and academic lives, and, in turn, our universities, communities, cultures, and society. This paper reports on a research study filling this gap, examining the online information sharing, ICT use, and settlement of international students in Canada." (WORRAL; BALLANTYNE; KENDALL, 2019, p. 306).

During the first stage - Pre-arrival, University, and program selection takes place, the application process is initiated, and in most cases, the international graduate candidate goes through the entire process online, being in their home country or elsewhere. Digital sources are a tool that helps connect people through social networks, applications, and other technological devices. In this case, information is precious as it is a requirement for an international candidate graduate program. In the Pre-arrival stage, the level of contact with official university representatives through online resources can inform and impact a candidates' ultimate decision.

The need for and importance of each information type will vary according to each stage. During the Settlement stage, a successful candidate will become a UFMG student, arrives on campus, and begins adapting to the new culture. Despite thorough research and investigation by the international candidate during the Pre-arrival stage, many problems can arise upon arrival at UFMG, such as the lack of information in the information flow and processes impacting the success of subsequent stages.

Since this research will focus on the international graduate students' information needs, the main questions to be answered are:

- a) What are the characteristics and information needs of international graduate students studying at UFMG?
- b) What requirements can be suggested to improve UFMG's Information and Communication Technologies (ICTs)?

## **General Objective**

The central objective of this research is to understand and map the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais – This output will contribute to UFMG's education internationalization process.

## Specific Objectives

The key results of the primary objective will be the following outputs:

- a) Develop an information flow model to map the application and enrollment processes of UFMG's international graduate program.
- b) Map the informal support networks for International Graduate Students at UFMG.
- c) Provide candidate recruitment campaign proposal and information solutions for official UFMG communication and consideration to attract new international candidates for graduate studies
- d) Deliver recommended improvements for official Information and Communication Technologies of UFMG that will enhance the enrollment and acclimation experience of International Graduate Students.

#### Contributions

On the global panorama of the internationalization of education, the United Nations, in the 2030 Agenda for Sustainable Development, exposed objectives related to Quality Education. Item 4.b clarifies:

By 2020, substantially expand globally the number of scholarships for developing countries, in particular the least developed countries, small island developing States, and African countries, for higher education, including vocational training programs, information technology, and communication, technical, engineering, and scientific programs in developed countries and other developing countries. (ONU, 2015, p. 5).

In the Brazilian context, concerning internationalization in graduate studies, CAPES<sup>1</sup> (2018b) points out that this process can occur through the reflection of its members to expand

Higher Education Personnel Improvement Coordination, CAPES is linked to the Ministry of Education (MEC). Its attribution is to support universities through its programs and works to expand and consolidate *stricto sensu* graduate programs in all Brazilian states. The various programs that CAPES coordinates have the common goal of raising the level of scientific research in several areas, maintaining a balance between the quality and quantity of courses authorized by the MEC, and offered by universities throughout Brazil. It is also responsible for evaluating, every four years, the courses that award official masters and doctoral degrees (BRASIL, [20-1).

the research frontiers of each program. Together with the knowledge and professional experience of their students, increasing the visibility of what is produced in the program, among other points.

We know how much science is enriching for the exchange of students and researchers, both for better training of the student, as well as for the enrichment of research in co-authorship, and even for better qualification of what is created in terms of the world of science, human sciences, and arts (CAPES, 2018a, p. 13).

Thus, the organization emphasizes the need to invest substantial resources to promote the internationalization of graduate programs. There are several ways an organization can encourage internationalization; offer entry and exit grants for students/researchers, intensify double degree diplomas, increase the number of courses taught with foreign partners, and partnership with leading international institutions to offer specialized graduate programs.

There were two federal initiatives that stood out regarding the number of foreigners received in the Brazilian public higher education system: Student Program - Undergraduate Agreement (PEC-G) and Student Program - Graduate Agreement (PEC-PG). Launched in the 1960s, the PEC-G selected more than 6,000 students between 2000 – 2013; Africa was the most prevalent continent of student origin, with high selection rates from Cape Verde, Guinea-Bissau, and Angola (DE WIT, 2017).

African graduate students are not the only international population that studies at UFMG, but also graduates from several different countries and continents. In addition, teachers, professionals, and researchers in general engage with UFMG. However, when compared, the context of the life of undergraduate and graduate students shows significant differences, considering their profile, information needs, educational goals, educational level, professional experience, among others.

UFMG has several actions aimed at its internationalization processes, such as the "Transversal Formations, which are sets of academic curricular activities organized according to curricular structures, which aim to address topics of general interest, encouraging the formation of a critical spirit and in-depth insight into these themes." (UFMG, 2019b, p. 4).

The subjects are offered to all undergraduate students, and some of them are also opened to graduate students. Areas covered are Accessibility and Inclusion, Cultures in Motion and Creative Processes, Human Rights, Scientific Dissemination, Entrepreneurship and Innovation, Minor in International Studies, Gender and Sexuality - Queer / LGBTI Perspectives, Ethnic-

Racial Relations, African History and Culture Afro-Brazilian, and, finally, Traditional Knowledge.

UFMG is attentive to its cultural diversity, also including the foreign community, as described in the same document:

Currently, international students represent around 2.5% of the academic community at UFMG. Although relatively small compared to other countries in the region, this population generates diversity in cultural and cognitive patterns at the University. It enriches classroom discussions and promotes different learning experiences. However, if the University could offer a more significant number of graduate activities with a global view and in foreign languages (mainly in English and Spanish, the most spoken among our international student body), it is assumed that this number could increase significantly. This proposal would project the internationalization of UFMG students to the same level as the best Latin American institutions. From this analysis, the idea of implementing the Minor in International Studies at UFMG arises (UFMG, 2019b, p. 47).

From the view above, the Institutional Development Plan - PDI of 2018-2023 included as one of its internationalization actions at UFMG the development of a website and sources of communication to meet the international students' information needs, described in PDI item 11:

Develop multilingual websites and produce institutional dissemination material in a foreign language, ensuring continued investment in technical infrastructure and human resources so that websites and other sources of communication and dissemination are always up to date. (UFMG, 2018b, p.180).

In the case of this research, the focus is the information needs of international graduate students. Due to the scarcity of studies for this group, especially considering a Brazilian university as an authentic context to be applied (GOMES; MURPHY, 2003; MAZZAROL, 1998; OH; BUTLER, 2016, 2019; PEARS, 2010). The research objective is also supported by the fact that many other Brazilian universities share similar experiences when receiving international students.

There is a predominance in the literature on education internationalization, with North American, Asian, or European universities as a reference. Therefore, it is necessary to understand the needs and problems of students who choose to study in Brazil for Brazilian higher education institutions to identify and implement effective recruitment campaigns and retention strategies to enrich their graduate student body with exceptional international students. In addition to the benefits experienced by the student body with the internationalization of programs, the exchange of cultures often extends into the Brazilian community.

UFMG is considered a leader in the internationalization process standards among Brazilian universities, and its directors and collaborators have implemented new ideas and approaches to realize constant improvement. Since the data collected in 2015 – 2016, UFMG has been involved in the planning and execution of several development actions.

The PDI UFMG 2018-2023 also addresses the need to "implement specific host actions for the internationalization of the internal and international communities" (UFMG, 2018b, p. 179-180). However, all actions that the university has planned highlight one of the main objectives: "the importance of strengthening the university's presence in the international academic environment, in all areas of knowledge, to contribute to its transformation into a university of world renown." On the image of universities at a global scale, Callahan (2006) presents the importance of international visibility on academic exchange:

The need for international visibility is not limited to the competition for students, but also includes creating an image of the university in the international arena. Even universities in countries which, because of the uniqueness of their language, will not attract many foreign students, may publish Web pages in English to facilitate academic exchange of ideas and create greater interest in the academic environment (CALLAHAN, 2006, p. 240-241).

## PART I - THEORETICAL FRAMEWORK

The literature review carried out in this study consisted of four steps: 1° UFMG, 2° UMD, 3° UFMG and 4° UFMG, according to the Thesis Information Flow, in the Methodology section. Due to the scarcity of studies about international graduate students' information needs, the search for publications was first supported by the relevance of the retrieved works, regardless of the year of publication.

The first stage of the review was carried out in 2019, via UFMG login, the searches took place in the platform Portal de Periódicos da Coordenação de Aperfeiçoamento do Pessoal de Nível Superior (CAPES). The second stage was in 2020, at the University of Maryland, in the United States, while the researcher was doing the Sandwich Doctorate Program. Finally, the third stage manifested itself after the researcher returned to UFMG through the publications of the previous phases.

Considering the context of UFMG, during the search, the Capes Portal was used to access five databases: Web of Science, Library & Information Science Abstracts (LISA), Library, Information Science & Technology Abstracts with Full Text (LIST), Information Science & Technology Abstracts (ISTA) and Reference and Citation Database (SCOPUS). These databases were consulted from a list of the main words that best represented the subject

studied, both in Portuguese and English. In Appendix A, the search strings of Stage 1 can be reviewed.

At this stage, the terms were related to each other from the search activities, and, sometimes, considering the search results, these terms were alternated in the two languages. During this process, the title and summary of the publications were read, revealing that the literature on the subject is relatively sparse, a finding mentioned by several authors, such as Lima (2017), Oh and Butler (2016), Rezende (2015), among others.

An approximate of 470 documents was retrieved, being stored in folders named according to the searched words. Then, the publications in each folder were analyzed in-depth with a complete reading of each work's titles, abstracts, introduction, and conclusion. During the reading activity, publications that had common points or some relevant information to be considered were filtered out.

Three directions were essential at this stage: 1) consulting a professional who works in search of databases, 2) consulting a subject matter expert, and 3) validation of terms by a taxonomy researcher. In the first case, an Information Science Librarian (Rachel Gamons) was consulted; in the second direction, an expert in Education Internationalization (Professor Taylor Woodman) was consulted. Both professionals consulted are affiliated with the University of Maryland. At that time, the areas of Education, Psychology, and Computing were included in the researched databases. The third direction was the selection of terms, carried out by Professor Emeritus Dagobert Soergel, Co-Advisor of the Doctoral thesis, from the pre-liminary list used in the first stage (Appendix A). All professionals consulted are affiliated with the University of Maryland. At that time, the areas of Education, Psychology, and Computing were included in the researched databases.

Concerning search strategies, the Boolean<sup>2</sup> method was considered, whose selected terms, in the English language, were combined correctly, forming the search expressions. Frame 1 shows the terms and their combinations, generating the expressions.

Frame 1 - Terms and Expressions Used in the Search, During the Second Stage of the Review

It concerns the Boolean Search Method, devised and implemented by George Boole. In this search method, the Or means OR, and, as in Portuguese, the "or" has the function of indicating choice; so, in Boolean logic, it is almost the same thing. Moreover, translating into Portuguese means E. As in Portuguese, the E is used to join ideas; in Boolean logic, it is applied the same way (GOMES, 2020; MARTINS, 2009).

Concept/Conceito	Query component - Strings/Expressões de busca
Cross-cultural/ Transcultural	("Cross-cultural" OR Intercultural OR Multicultural)/(Transcultural OU Intercultural OU Multicultural)
International ED/ ED Internacional	("international education" OR "education internationalization" OR 'foreign student" OR 'international student") / ("educação internacional" OU "internacionalização da educação" OU "estudante estrangeiro" OU "estudante internacional")
Approach/ Abordagem	(design OR "information science" OR "information management" OR "problem-solving" OR "human-centered" OR "user-centered"/ (design OU "ciência da informação" OU "gestão da informação" OU "resolução de problemas" OU "centrado no humano" OU "centrado no usuário")
User experience, Communication/ Experiência do usuário, Comunicação	(communication OR web OR "user experience" OR UX OR "human-computer interaction OR HCI)/ (comunicação OU web OU "experiência do usuário" OU UX OU "interação homemmáquina" OU IHC)
Cultural intelligence/ Inteligência cultural	("cultural intelligence" OR "cultural competence" OR "language skills" OR "foreign language") Note: combine with the international ed concept/ ("inteligência cultural" OU "competência cultural" OU "habilidades linguísticas" OU "língua estrangeira") Nota: associe com o conceito de ed internacional
web localization	web localization
Geographical area/ Área geográfica	(Brazil OR "South America" OR "Latin America")/ (Brasil OU "América do Sul" OU "América Latina")

Source: Created by the author  $(2020)^3$ .

The terms mentioned in Frame 1 were listed by the Boolean "AND," for example: "Cross-cultural OR Intercultural OR Multicultural" AND "web localization." Searches were performed via login to the Mckeldin Library website at the University of Maryland and the Google Scholar base. Five databases were searched for related terms: Education Source, Psyc Info, ERIC, ACM – Digital Library, and Library and Information Science Source (LIS). The author (2020), based on data validated by Professor Dagobert Soergel.

The documents found were classified according to the search terms and stored in twenty-eight folders, using the resources provided by Zotero. The total number of documents retrieved was 547. In an initial analysis, duplicate documents were eliminated, resulting in a sample of 518 documents, arranged into 28 folders.

Further selection from the 518 documents was carried out in two stages:

<sup>&</sup>lt;sup>3</sup> Based on data validated by Dagobert Soergel.

- a) The title and abstract of each publication were analyzed. In some cases, documents were moved between folders and documents common to more than one topic were replicated in the corresponding folders.
- b) The publications were reviewed, and a new selection was made within each folder. The remaining documents were summarized with added notes to support the writing of the thesis.

The criterion used to organize the publications in both selections was content analysis, which generated categories that represented the themes, which became names of the folders. At the end of the selection activities, the analysis corpus consisted of 12 categories (originated with the compilation of folders), containing 70 files. Table 1 describes the generated categories, and the number of files present in each one, from both stages of selection.

Table 1 – Categories and file numbers in the first and second selection

Category/keyword (folders)	# of documents after first selection	# of documents after second selection
Brazil and International Students	7	-
Transcultural	15	14
Internationalization of Education - Concept	4	-
Internationalization of Education - Market	15	11
Human-Machine Interaction - IHC	4	5
User-centric design	4	4
Information	2	6
International Student	23	11
Language skills	8	-
Social networks	2	4
User experience	14	5
Web localization	4	10
Total selected files	102	70

Source: Research data (2020).

As for the third stage of the review, the files from the previous stages were correlated, in a complementary way, making it possible to confront the themes and encourage discussion of the results. For this, it was necessary to summarize each study, carried out through a full

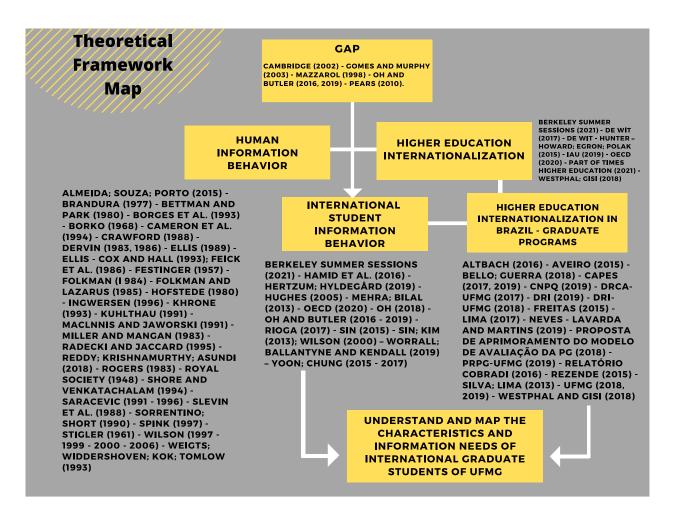
reading, followed by annotations of each text. In this activity, it was noticed that several publications did not contemplate the scope of this study, which led to the exclusion of works, resulting in thirty-one works for analysis.

For the fourth and final stage, only the search string "Information Behavior AND International Student" was checked using the UFMG ID on Portal Capes in 2020. The databases investigated were Web of Science, Library & Information Science Abstracts (LISA), Library, Information Science & Technology Abstracts with Full Text (LIST), Information Science & Technology Abstracts (ISTA), and Reference and Citation Database (SCOPUS). There was a total of ten publications retrieved.

In addition, along the way, UFMG data was checked directly on the website of the university, which is not included in the table. Furthermore, some references were found while reading the selected publications, and the researcher looked for them to improve the topics search.

Thus, in the discussion of the results, a broader context was started, considering a conceptual, theoretical foundation about four pillars, which is represented in Figure 1: Human Information Behavior, Higher Education Internationalization, International Student Information Behavior, and at last, Higher Education Internationalization in Brazil – Graduate Programs.

Figure 1 - Theoretical Framework Map



Source: Created by the author (2021).

### 2 HUMAN INFORMATION BEHAVIOR

The approach of the theme Human Information Behavior is considered in the context of the Information Science field. Information Science (IS) is an Interdisciplinary Social Science, where theory and practical use makes its application viable. One of the sub-fields that is part of IS is Human Information Behavior. The authors express this correlation below:

Information Science is a field devoted to scientific inquiry and professional practice addressing the problems of effective communication of knowledge and knowledge records among humans in the context of social, institutional and/or individual uses of and needs for information. In addressing these problems of particular interest is taking as much advantage as possible of the modern information technology (SARACEVIC, 1992, p. 5).

Borko (1968) also defines IS corroborating Saracevic (1992):

Information Science is an interdisciplinary science that investigates the properties and behavior of information, the forces that govern the flow and use of information, and the techniques, both manual and mechanical, of processing information for optimal storage, retrieval and dissemination (BORKO, 1968, p. 5).

Both authors agree that Information Science has a practical and a theoretical approach. So, its fields of study go from research to a professional environment. For Saracevic (1992), there are twelve areas within IS: effectiveness, human communication, knowledge, knowledge records, information, information needs, information uses, social context, institutional context, individual context, and information technology.

On the other hand, according to Borko (1968), there are nine categories, based on his analysis of the "Current Research and Development in Scientific Documentation" (1966). In this case, the first one describes this research and supports Saracevic's (1992) point of view: information needs and uses, in which its subtopic of behavioral studies of users is the primary approach. In addition, the first core topic also covers citation studies, communication patterns, and literature use studies.

A growing body of literature recognizes the importance of "the studies on information use, user and user behavior, information seeking, have been going on since mid-20th Century. The area has still been a subject of current study with ceaseless advances influencing library and information science" (REDDY; KRISHNAMURTHY; ASUNDI, 2018, p. 82). Wilson (2000) also described different kinds of the investigation published beforehand, which contributed to the development of the field. In this case, he mentioned The Library Survey

(AYRES, McKINNIE, 1916; McDIARMID, 1940), and other research pieces from the 1920s and 1930s.

Post-war scientific literature was published, and research about Information Behavior was remarkable at the first International Conference on Scientific Information arranged by the Royal Society held in 1948. A few "studies, in brief, showed a gradual shift and changing focus on the use and users of the libraries and the library resources" (REDDY; KRISHNAMURTHY; ASUNDI, 2018, p. 82). "A number of papers on the information behavior of scientists and technologists were presented. Of course, the term information behavior was not used in the papers, which were generally about document and library use, but the origins are clearly there" (WILSON, 1999, p. 250). "It was the real beginning of a concern with understanding how people used information in relation to their work and, particularly, how they used it in science and technology" (WILSON, 2000, p. 50).

Through time, since the Royal Society Conference in 1948, "literally thousands of papers and research reports have been produced on user needs, information needs, and information-seeking behavior" (WILSON, 1999). Information Science was not the only field focusing on these topics. Conversely, human aspects of information use were secondary in studies about "the use of information sources and systems, and included studies of medical scientists, forest scientists, and a feature of the time, a number relating to scientists in the atomic energy industry and associated research units" (WILSON, 2000, p. 50).

According to Reddy, Krishnamurthy, and Asundi (2018), in the 1960s, online information retrieval systems arose. Along with this movement, research about information retrieval, users' interaction with the machine for information retrieval made the structure of thesaurus possible.

The new millennium with the ordered impact of information communication technology, as more and more sources of information going digital, the use, user and user information seeking totally shifted library's physical environment to virtual environment. The emergence of World Wide Web transformed the user information seeking to more or less to "Search Engines" and search method on the Web (REDDY; KRISHNAMURTHY; ASUNDI, 2018, p. 82).

In the new global economy, the volume of information available virtually has become a central issue for Information Science and other science fields. Significantly, the whole cycle of the use of information. In addition, other factors such as technological development influence this scenario.

The last few years of the 20th century were characterized by the fast expansion of information technology and by the acceleration of the processes of information transformation. These processes include the creation, representation, storage, organization, dissemination and consumption of information. This meant the issues from decades ago originally justifying the appearance of a so-called "Information Science", are nowadays exponentially felt (ALMEIDA; SOUZA; PORTO, 2015, p. 04).

Information Behavior is a significant area of interest within the field of Information Science and other subjects. The "user" and the "use of information" fit in as the center of attention, inspiring different kinds of research. Therefore, these studies are considered complementary, which is the case of this research.

Information science is not the only discipline to be concerned with the user and use of information. Mention has been made earlier of the role of the user requirements phase in the design of computer-based systems, but other disciplines also have an interest from different perspectives. For example, psychological studies of personality have dealt with information processing and cognition (WILSON, 2000, p. 4).

Besides the Information Systems field, Librarianship and Information Science also see "What information is needed" as an issue. On top of that, "consumer behavior research, marketing, psychology, health communication research, and a number of other disciplines that take the user as the focus of interest, rather than the system" (WILSON, 2000, p. 1).

Investigating Information Behavior is a continuing concern within Information Science. In the interaction of the user with information, different processes occur. The issue of clarifying the concepts used in this study has received considerable critical attention. When the "user" looks for information, his "need" triggers him/her. To find what is necessary, the "user" does the "information seeking," and there might happen the "information gathering". Reddy, Krishnamurthy, and Asundi (2018) refine these terms:

1) Use: the word 'use' is both a Verb and a Noun. The verb implies consumption, put into service or seeking for information. So, this could be the meaning and definition of 'Use' hence the word is largely an inclusive concept and is more pragmatic. / 2) User: one who makes use of things; the types of users are 'Individual' or 'someone unknown'. The user is at large, his behavior unknown till he interacts with the system. / 3) Information Need: activity that releases entropy. Need differs from Want as the former is an intuitive, stimuli and/or urge. Need is not wanting. / 4) Information Gathering: accumulating, collecting, assembling, aggregation. The functions or acts for the present and future use of information. There are types of gathering- seeking, harvesting and mobilizing. / 5) Information Seeking: an act of searching for something, an attempt to acquire or gain something. It is further explained that seeking is the psychological feature that arouses an organism to action towards the desired goal, the reason for the action that which gives purpose and direction

to behavior (REDDY; KRISHNAMURTHY; ASUNDI, 2018, p. 83, emphasis added).

To enhance the concepts introduced above, a deeper understanding of Information Behavior, Information Seeking Behavior, Information Searching Behavior, and Information Use Behavior is required, Wilson (2000, p. 1, emphasis added) states:

6) Information Behavior is the totality of human behavior in relation to sources and channels of information, including both active and passive information seeking, and information use. Thus, it includes face-to-face communication with others, as well as the passive reception of information as in, for example, watching TV advertisements, without any intention to act on the information given. 7) Information Seeking Behavior is the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web). 8) Information Searching Behavior is the 'micro-level' of behavior employed by the searcher in interacting with information systems of all kinds. It consists of all the interactions with the system, whether at the level of human-computer interaction (for example, use of the mouse and clicks on links) or at the intellectual level (for example, adopting a Boolean search strategy or determining the criteria for deciding which of two books selected from adjacent places on a library shelf is most useful), which will also involve mental acts, such as judging the relevance of data or information retrieved. 9) Information Use Behavior consists of the physical and mental acts involved in incorporating the information found into the person's existing knowledge base. It may involve, therefore, physical acts such as marking sections in a text to note their importance or significance, as well as mental acts that involve, for example, comparison of new information with existing knowledge.

According to Wilson (1999), it is more usual to find models that infer theory only instead of relationships among theoretical arrangements.

### 2.1 Human Information Behavior Model

Throughout history, different authors have proposed diagrams, flows, and models that represent the use of information, the user, and the relationships involved in the information behavior. A Literature Review was part of this research process, and these models were checked carefully. These studies are from the writers Dervin (1983), Dervin and Nilan (1986), Ellis (1989) and Ellis, Cox and Hall (1993); Kuhlthau (1991).

Further models related to information retrieval were also reviewed due to their close relationship with information-seeking behavior. "The use of IR systems is one possible strategy in the collection of information and, hence, constitutes a potential sub-stage in the information-seeking process" (WILSON, 1999, p. 258). In addition, some studies can be cited as a reference for the topic, such as Ingwersen (1996), Saracevic (1996), and Spink (1997).

As stated by Wilson (1999, p. 250), the term model has been used to refer to situations in which,

A model may be described as a framework for thinking about a problem and may evolve into a statement of the relationships among theoretical propositions. Most models in the general field of information behavior are of the former variety: they are statements, often in the form of diagrams, that attempt to describe an information-seeking activity, the causes and consequences of that activity, or the relationships among stages in information-seeking behavior.

According to Wilson (1999), it is more usual to find models that infer theory only instead of relationships among theoretical arrangements.

This thesis considers the implications of two models designed by Wilson from 1981 and 1996 that were adopted as a complementary theoretical reference to collect and analyze the data of this research.

The first one presented is called A Model of Information Behavior, created by Wilson in 1981 and published again in 2006.

Figure 2 draws attention to the interrelationships among concepts used in the field and suggests, when observing it vertically, that information-seeking behavior results from the recognition of some need, perceived by the user, who is the initial point. The sequence of topics, **Information User**, "Need," and **Information Seeking Behavior**, are in the center of the figure.

At the same time, the user practices his information-seeking behavior demanding in two ways: through Demands on Information Systems, resulting in Success or Failure. From Success, there is an arrow pointing to Information Use and starting over the Information Use process. The second way is through Demands on other Information Sources; in this case, it could be the news, television, websites, libraries, and so on, depending on the user's need. Similar to the Demands of the Information Systems, the Demands on other Information Sources may also result in Success or Failure.

Horizontally from left to right, there is an arrow connecting **Information Use** and **Information Seeking Behavior** (which is in the middle), and from it to Information Exchange. Alternatively, in **Information Exchange**, **Other People** are involved, which is expressed in the arrow pointing from **Information Exchange** (reciprocity).

Alternatively, the user may seek information from other people, rather than from systems, and this is expressed in the diagram as involving "information exchange." The use of the word "exchange" is intended to draw attention to the element of reciprocity, recognized by sociologists and social psychologists as a fundamental aspect of human interaction. In terms of information behavior, the idea of reciprocity may be fairly weak in some cases (as when a

junior scientist seeks information from a senior but hierarchically equal colleague) but in other cases may be so strong that the process is inhibited, as when a subordinate person in a hierarchy fears to reveal his ignorance to a superior (WILSON, 2006, p. 660).

It is important to emphasize that **Failure** may also come from **Information Exchange** with **Other people**. Not only through **Information Systems** or **Other Information Sources**. Either way, the information will be "used" if it reaches the user's need. That "use" may be evaluated and cause satisfaction or non-satisfaction. Furthermore, its relevance is considered for another person's need and may be "transferred" to this person.

Although all of these areas are of potential interest to the field of user studies, attention has been given in the past chiefly to the demands people make upon formal information systems. Curiously, information use (which ought to point most directly to the needs experienced by people) is one of the most neglected areas; and "information exchange" as defined here has tended to fall within the sphere of interest of sociologists and organizational theorists rather than within that of information scientists (WILSON, 2006, p. 660).

So, Information Exchange is connected to Other people indicating the interaction between the two points. The other arrow pointed to Other People comes from Information Transfer and connected to it is Information Use. From Information Use there is an arrow going to Satisfaction or Non-satisfaction of the process.

So, Information Exchange is connected to Other people indicating the interaction between the two points. The other arrow pointed to Other People comes from Information Transfer, and connected to it is Information Use. From Information Use, there is an arrow going to Satisfaction or Non-satisfaction of the process.

Thus, in information exchange, an individual may be looking for facts, advice or opinions, and may receive any of these either in writing or orally. Sometimes the channel itself may be of overriding significance, as when orally given advice may be preferred over anything in writing. Again, a user may be interested in a specific document as a physical entity, as in the expression of a need to view variant copies of an incunabulum. In information transfer it may be a fact, an opinion or a piece of advice that is transferred orally, or a physical document "containing" the fact, opinion or advice may be given to another person (WILSON, 2006, p. 660).

According to Wilson (2006), when we decide to study the facts, ideas, advice, opinions, or the nature and distribution of any information, it is fundamental when using the term "user study" to specify the sub-field and the crucial characteristics of "information" involved in the context.

Information-Context of information Activating Intervening Activating seeking variables need mechanism mechanism behaviour Risk/reward Person-in-context Stress/coping Psychological theory theory Passive attention Demographic Passive search Social learning Role-related or theory interpersonal Active search Selfefficacy Environmental Ongoing search Source characteristics Information processing and use

Figure 2 - Wilson's 1996 Model of Information Behavior

Source: Wilson (1999, p. 257).

The horizontal reading of the figure starts from **Context of Information Need** on the left corner, and there is a sequence of arrows connecting the other four topics.

Wilson (1997, p. 552) introduced the term "need" as "a subjective experience that occurs only in the mind of the person in need and, consequently, is not directly accessible to an observer. The experience of need can only be discovered by deduction from behavior or through the reports of the person in need".

There are different types of information need. According to Weigts *et al.* (1993), three categories come to attention: the need for new information, the need to elucidate the information held, and the need to confirm information held. Wilson (1997) describes them as cognitive need and complements the categories with the significance of beliefs and values, adding: need to elucidate beliefs and values held and need to confirm beliefs and values held.

The second topic is **Activating Mechanism**, which is connected to Stress/coping theory, below.

To define and comprehend the need for information, focusing on immediate causes of information-seeking behavior can be helpful. It is why the conceptions of stress and coping (general theory from psychology) have been used in health communication studies. According to Wilson (1997), Folkman (1984) states that when a person interacts with the environment and considers this relationship exceeding his/her resources and threatening his/her well-being, this

is the definition of stress. On the other hand, Folkman and Lazarus (1985, p. 156) clarified coping as "[...] cognitive and behavioral effects to master, reduce or tolerate the internal and external demands that are created by stressful situations".

About coping and information use, the stress/coping idea related to information-seeking behavior is explained by Miller and Mangan (1983), cited by Wilson (1997, p. 554): "one key situational property that has consistently been found to affect stress is whether the individual has maximal information (predictability) or minimum information (unpredictability) about the event and its effects."

Then, from **Activating mechanism**, there is an arrow pointing to Intervening Variables. Wilson (1997) stated that even if there is a need for information, it is an option for the

user to engage in information-seeking behavior or not. There are different impediments.

[...] between the recognition of a need to be informed and the activation of a search for information [...][...] The author states that the barriers, at the level of the person [...] may act to prevent the initial emergence of a coping strategy or may intervene between the acquisition of information and its use. However, with this caveat in mind, it is convenient to deal with the barriers in one place. (WILSON, 1997, p. 556).

Different fields have discussed Intervening Variables, such as personality, health communication, consumer research, and innovation studies. Besides the areas, Wilson (1997) took into account, like decision-making and information systems requirements.

Bellow the topic Intervening Variables, a vertical rectangle identifies the sub-themes in a sequence: Psychological, Demographic, Role-related or interpersonal, Environmental, and Source characteristics.

# Psychological

Four sub-themes come from this topic: cognitive dissonance, selective exposure, physiological, cognitive, emotional characteristics or personal characteristics, educational level, and knowledge base.

Previous studies about psychological literature concentrate on the idea of cognitive dissonance as a motivation for behavior. As stated by Festinger (1957) and cited by Wilson (1997), cognitive dissonance is "conflicting cognitions make people uncomfortable and, consequently, they seek to resolve the conflict in one way or another." Wilson (1997) also postulates that individuals may have different levels of cognitive need, which may be the last impulse of information behavior.

About selective exposure, Wilson (1997) pointed out that the individual or a group tends to be in contact with ideas that match their stereotype image, avoiding the opposite or

conflicting cognitions. The author (WILSON, 1997) mentioned Johnson and Festinger (1957), Khrone (1993), Rogers (1983), and Sorrentino and Short (1990).

The sub-theme physiological, cognitive, and emotional characteristics or personal characteristics may be illustrated by a study with cancer out-patients about information-seeking behavior. Borgers *et al.* (1993), mentioned by Wilson (1997), discovered that specific characteristics of the patient could become obstacles to seeking information during a doctor's appointment. These attributes are:

1. The characteristics and perceptions of the patient; 2. Certain characteristics of the patient's companion [i.e. the person accompanying the patient at the interview] and the specialist; 3. Characteristics of the organization and situation (BORGERS *et al.*, 1993 apud WILSON, 1997, p. 557).

Concerning educational level and knowledge base Wilson (1997) mentioned studies from the consumer behavior field focused on the effect of the individual's knowledge base. MacInnis and Jaworski (1991) suggested that the more knowledgeable the person, the easier he/she would find it to code information, thus making additional information acquisition easier. Bettman and Park (1980 apud WILSON, 1997) affirm "highly knowledgeable people may feel less need to search for more information."

Radecki and Jaccard (1995), quoted by Wilson (1997), indicate that a person's perception of his/her knowledge is affected by his/her perception of a friend's knowledge. Furthermore, the authors suggested that personal notions of knowledge influence decision-making and behavior when people search for less information on topics they perceive as acquainted. "The role of the friend also points to the fact that information acquisition is not entirely a solitary activity, but has a social dimension" (RADECKI; JACCARD, 1995 apud WILSON, 1997).

The study also found that the perceived importance of a topic tends to bias perceptions of knowledge: the more important a topic is to individuals, the more likely they will view themselves as knowledgeable about the subject. In conditions of privacy, it was found that persons with less perceived knowledge (that is, lower self-perceptions) searched more. In public settings the relationships were more complex but, overall, the study concludes that perceived knowledge is a central construct in the analysis of information-seeking behavior, perhaps more so than actual knowledge (RADECKI; JACCARD, 1995 apud WILSON, 1997, p. 561).

# Demographic variables: age, sex, and other factors

Wilson (1997) mentioned research about health information to exemplify these variables. The author cited Feick et al. (1986) in a study concerning women's searching

behavior for nutrition information on food labels. Participants with children looked for nutrition and ingredient information on particular products, not demonstrating widespread attention in more general nutrition information, making the authors conclude "that concern for their children was the motivating factor in information search" (FEICK *et al.*, 1986 apud WILSON 1997, p. 557).

In a study of a national cancer information service (BACUP) found that use of the service was mainly (80%) by women (although men are marginally more at risk), either in the 30--49 years age group (52%) or over 60 years of age (17%). More than 85% of enquirers were in non-manual occupations and 97% were white (1.2% came from the Indian subcontinent, compared with 3.6% in the population as a whole) (SLEVIN *et al.*, 1988).

Other demographic factors are economic barriers related to information-seeking behavior fit in two categories: "direct economic costs, and the value of time. These may apply either to the process of information seeking itself, or to the consequent actions" (WILSON, 1997, p. 559).

## Role-related or interpersonal – Social/Interpersonal Barriers

According to Wilson (1997), interpersonal issues tend to emanate every time an information source is a person or where interpersonal interaction is required to access other kinds of information sources.

Rogers (1983), cited by Wilson (1997) from the field of innovation research, stated that there is a behavior pattern established for the members in a social system, which may work as an impediment to change, thus, as an impediment to information-seeking directed to change.

Wilson (1997, p. 560) mentioned that Borgers *et al.* (1993) found that cancer patients "identified several barriers to successful information seeking during consultations: these included the attitude of the specialist, and the presence of other people, such as clinical assistants during the consultation".

## **Environmental/Situational Barriers**

Wilson (1997) described it as an immediate situation of information-seeking activity and the wider environment. However, despite its explanation, this topic is divided into three sub-themes: Time, Geography, and National Cultures.

Cameron *et al.* (1994) stated by Wilson (1997) that time could be affected when it was not enough, added to the stress of the situation, and the use of unfamiliar terminology would repress information exchange between patients and doctors.

The consultation duration was affected by its interruptions, such as the telephone calls, which were impediments to information seeking. This situation is what Borgers *et al.* (1993) mentioned by Wilson (1997) discovered about the research of information-seeking cancer outpatients.

About Geography, Wilson (1997) cited Connell and Crawford (1988) concerning the health information they gathered on a study. They discovered that age and geographic location would affect it. The quantity of information received from all sources reduced with age for city residents, but for the rural residents, an elevated amount of information was received in the 20-44 years age group, the rank then dropped in the 45-65 years age range but elevated again for the 65 years.

Older rural women were found to receive a large amount of information from a variety of sources and the levels of information these women received only dropped slightly with age, compared to older men who received far less health information than their younger counterparts (CONNELL; CRAWFORD, 1988 apud WILSON, 1997, p. 560).

Different national cultures may influence the way people of different cultures face information acquisition, such as how they transfer innovation and associated information. The reference in this field is the researcher Hofstede (1980), quoted by Wilson (1997), who initially proposed and tested four aspects in which cultures might vary.

These are power distance or the acceptance of unequal distribution of power in organizations; uncertainty avoidance, or the extent to which a society feels threatened by uncertain situations and so tends to avoid such situations; individualism-collectivism, which is rather self-explanatory; and masculinity-femininity, or the prevalence of masculine values of materials things, Etc., vs. that of feminine values such as caring for others. In a later work (Hofstede, 1991), a fifth dimension was added, that is, long-term/ short-term orientation to life (HOFSTEDE, 1980 apud WILSON, 1997, p. 561).

There are five dimensions as a reference for culture – consequently, the differences in information-seeking behavior and information use when the five aspects are related. For example, Wilson (1997) supposed that information exchange tends to be facilitated in organizations whose culture has a high collectivism score compared to those inserted in cultures with high power distance measures.

The same author infers that Uncertainty shows up in individual behavior and is associated with information-seeking. Therefore, cultures with a high grade on uncertainty avoidance are expected to bring up information-seeking behavior. On the other hand, the countries with a tradition of library development are high on the uncertainty avoidance rank.

Wilson (1997, p. 561) mentioned Shore and Venkatachalam (1994), saying that the transmission of information technology is more likely to work effectively "where the cultural gap between the countries is least."

### Source characteristics/Information Sources Characteristics

This topic is composed of three sub-topics: Access, Credibility, and Channel of Communication.

Wilson (1997) clarifies that Access as a central prerequisite for information-seeking is that some source of information should be accessible. The shortage of a handy source may hinder information-seeking altogether or impose more elevated costs than the user is prepared to pay.

About Credibility Wilson (1997, p. 561) affirms that "if a seeker of information discovers that an information source is unreliable in the quality and accuracy of the information delivered, he or she is likely to regard the source as lacking in credibility."

The Channel of communication is the third sub-topic presented by Wilson (1997, p. 562): "The communication channel through which the information is received is sufficiently closely tied to the source to be considered."

The same researcher calls attention to the fact that information-seeking behavior studies have regularly shown other people to be the most usual source of information.

At the top sequence, after **Intervening variables**, there is an arrow connected to **Activating mechanism**, which is linked by a dashed line to a rectangle bellow, that contains **Risk/reward theory**, and bellow that, on a second level, **Social learning theory**, as the dominant rectangle, and **Self efficacy** in a smaller rectangle, inside the bigger one.

The risk and reward model may be considered a general theory of information-seeking behavior (...). "It is normally associated with issues of financial cost, but in setting out to search for information in any context we may be risking not only financial resources but also psychological and physical resources" (WILSON, 1997, p. 562). According to Stigler (1961 apud WILSON, 1997), when options to be chosen are identical, search efforts will be diminished, so the gains are reduced.

Wilson (1997) mentioned Brandura (1977) about the social learning theory; its central concept is self-efficacy, or a sense of personal mastery. Brandura (1977 apud WILSON, 1997) defines it as the result expectancy that occurs when a person predicts a particular behavior to specific results. On the other hand, an efficacy expectation is a belief that the person can execute the behavior preferred to produce the results. Thus, results and efficacy expectations are

differentiated. People can think that a particular sequence of actions will produce specific results, but if they have serious doubts about whether they can pull off the necessary activities, such information does not influence their behavior.

Wilson (1997) presumed that although the self-efficacy principle is originally from psychology, he saw other ways to apply it. In this case, in the information-seeking behavior field. So, he states an example:

We can hypothesize, for example, that an individual may be aware that the use of an information source may produce helpful information but doubt his or her proper capacity to access the source or carry out a search properly. In such a case, failure to use the source might occur. We can also hypothesize that one of the motives for information-seeking is to gain information to improve one's self-efficacy in coping with problems of whatever kind.

At the top, after **Activating mechanism**, there is an arrow connecting **Information-seeking behavior**, whose vertical rectangle below it includes the subjects: **Passive attention**, **Passive search**, **Active search**, and **Ongoing search**.

Wilson (1997) and Ellis's behavioral model of information seeking (ELLIS, 1989) consider active searching the main principle. However, other modes are involved in the process:

Passive attention: such as listening to the radio or watching television programs, where information acquisition may take place without intentional seeking; Passive search: signifies those occasions when one type of search (or other behavior) results in the acquisition of information that happens to be relevant to the individual; Active search: where an individual actively seeks out information; and Ongoing search: where active searching has already established the basic framework of knowledge, ideas, beliefs or values, but where occasional continuing search is carried out to update or expand one's framework. In consumer research, Bloch et al. (1986) define ongoing search as that which is independent of specific purchase needs or decisions and that the motives are to build knowledge for future purchase decisions and simply to engage in a pleasurable activity (WILSON, 1997, p. 562, emphasis in original).

So, there is an arrow coming from Information-seeking behavior, pointing down to a big rectangle with Passive attention, Passive search, Active search, and Ongoing search, directed to Information processing and use, in a horizontal line center and bottom of the figure.

About **Information processing and use**, Wilson (1997) infers that there is no way to assure that in any situation when information is required, it will be processed (i.e., incorporated into the user's framework of knowledge, beliefs, or values) or used (i.e., lead to changes in the user's state of knowledge, behavior, values, or beliefs). Therefore, even if this information is to

fill cognitive gaps, bear values and beliefs, influence affective conditions, and have available sources of information to the searcher.

One of the problems with this aspect of information behavior is that information processing is as subjective as information need and, like information need, is not directly observable since it takes place in the individual's mind. Another difficulty is that the association between information processing and learning is so close that it is almost identical and learning theory has been covered only incidentally in this review.

After reviewing the literature found in Wilson (1997), the author assumed that information use was under-researched and prevenient mainly from areas of research instead of Information Science. Besides that, "most of the literature we have reviewed appears to take information use as non-problematical: the concern is mainly with the factors that create the need for information and the factors that affect the choice of information sources and channels" (WILSON, 1997, p. 567).

Regarding analyzing studies from the fields of innovation research and research into decision-making in organizations, Wilson (1997, p. 567) concludes that "the use of information is as dependent upon the context of use as information need is dependent upon the situation under which it arises".

From Information processing and use there is an arrow pointing up to Person-incontext, as a sub-rectangle of Context of Information. The whole figure forms a rectangle, whose direction of the arrows is clockwise.

### 3 HIGHER EDUCATION INTERNATIONALIZATION

There are different definitions for education internationalization that have evolved over the years. One reason for that is the evolution of education and how affected it is by a globalized world, where geographical boundaries have not been considered a challenge as they used to be. Along with the speed of information flow through a digital worldview.

Looking at the contemporary context, it is easy to see that globalization is not just about growing the circulation of products, capital, and services among global companies, but especially at the intersection of people's boundaries. This process specifically concerns human mobility, and this has become an essential element of the global economy due to countries' demand for companies and skilled labor to improve their services and hence their competitiveness. The mobility of the skilled workforce has moved education internationally, across borders and placing recognition of higher education at the top of national and international politics (WESTPHAL; GISI, 2019 p. 371).

According to De Wit *et al.* (2015), education internationalization is the intentional process of integrating an international, intercultural or "global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society". "Internationalization of Higher Education," European Parliament, Brussels: EU). The International Association of Universities (IAU), founded in 1950 by UNESCO, uses this definition as a reference. IAU is the leading global association of higher education institutions and organizations from around the world.

The IAU (2019) also states that this definition emphasizes that internationalization is an intentional process, not a passive experience. Furthermore, it highlights that internationalization is not a goal but a means of enhancing higher education and research quality and excellence. Besides that, it notes that internationalization needs to serve societal needs rather than focusing solely on economic rationales and returns.

We simply need to look to countries and/or regions of the world that are promoting internationalization in the higher education sphere to see Western models being touted as "modern" and successful approaches to internationalization. The unidirectional flow reflects power relations and the dominance of Western cultures. Internationalization practices are not value-neutral and cannot be devoid of cultural dimensions. The work must be contextualized. How scholars and practitioners conceptualize and implement internationalization activities must take into account the specificities of the environment it is emanating from and aims to benefit (DE WIT, 2017, p. xxii).

About how the universities should face globalization, according to IAU (2019), it affects all institutions, and HEIs experience different pressures; they exist in different contexts and have different needs. Therefore, there is no "one size fits all" model or approach for internationalization. Instead, each HEI must find its way of internationalizing. At the same time, all HEIs can benefit from the best thinking and good practice from other institutions worldwide.

### 3.1 International Student

It is necessary here to clarify exactly what is meant by Foreign students, International students, Mobile students, and the country of primary education. Therefore, considering that these terms might be used in this Thesis, the expression "International student" is going to be adopted as a reference according to the definitions stated below:

Foreign students are those who are not citizens of the country in which they are enrolled and where the data are collected. Although they are counted as internationally mobile, they may be long-term residents or even be born in the "host" country. While pragmatic and operational, this classification may be inappropriate for capturing student mobility because of differing national policies regarding the naturalization of immigrants. In general, international students are a subset of foreign students (OECD, 2020, p. 235).

International (or internationally mobile) "students are students who have crossed a national or territorial border for the purpose of education and are now enrolled outside their country of origin" (UNESCO, [202?]). "Mobile students are students who are either international or foreign" (OECD, 2020, p. 235).

International students are those who left their country of origin and moved to another country for the purpose of study. The country of origin of a tertiary student is defined according to the criterion of "country of upper secondary education", "country of prior education" or "country of usual residence" (see below). Depending on country-specific immigration legislation, mobility arrangements (such as the free mobility of individuals within the European Union and the European Economic Area) and data availability, international students may be defined as students who are not permanent or usual residents of their country of study, or alternatively as students who obtained their prior education in a different country (OECD, 2020, p. 235).

This shows a need to be explicit about exactly what is meant by the expression 'country of prior education'. Since there is a reference of the country where the student comes from and his/her future destination. Also, each country has its regulations about immigration, which must be considered in the correlation of the student's home country and the nation where his/her university is located. This process usually takes place when the student is approved and must obtain the visa before crossing the borders of the expected country.

The country of prior education is the country in which students obtained their upper secondary qualification (upper secondary or post-secondary non-tertiary completion with access to tertiary education programmes) or the qualification required to enroll in their current level of education. Where countries are unable to operationalize this definition, it is recommended that they use the country of usual or permanent residence to determine the country of origin (OECD, 2020, p. 235).

However, the digital disruption could be a contributing factor to how education internationalization has been impacted worldwide. Higher Education Institutions have been expanding to the virtual world, enabling students to 'study abroad' from their home country.

Universities themselves have become global players. Increasingly, they are competing with one another to attract funds, professors and talented students. The reputation of a university is made at the global level. This trend will accelerate with the digital revolution, which is giving worldclass universities an even greater global presence through their online courses (UNESCO, 2015, p. 3).

Due to the COVID-19 pandemic, the international education world scenario has changed. Since 2020 the pandemic due to Covid-19 has been declared and university students' lives were turned upside down. "The shift to online learning was a challenge for many, while others had to make the difficult decision of whether to stay at their university or travel home to their families" (THE STUDENT, 2021).

According to the Berkeley University of California website, inside the Berkeley Summer Sessions, on the webpage How to Determine if you are an International Student, it is defined: "international students are defined as 'non-immigrant' visitors who come to the United States temporarily to take classes or take online courses virtually from anywhere in the world." (BERKELEY, [202?]).

# 4 INTERNATIONAL STUDENT INFORMATION BEHAVIOR – ESSENTIAL CONCEPTS

In this section, some concepts will be explained to clarify the comprehension of the dissertation, such as International Student Information Behavior and Local Information Behavior. Furthermore, as Oh and Butler (2019) classified and according to this dissertation, the international students will be categorized into International-common group, International-less-common group, and Domestic-out-of-state group. At last, Local co-national context is clarified as Oh and Butler (2019) stated.

Taking OECD (2020) and Berkeley ([202?]) as a reference, mentioned previously: International students are those who left their country of origin and moved to another country for the purpose of study or take online courses virtually from anywhere in the world.

From the definition above and according to the meaning of Information Behavior elucidated by Wilson (2000), International Student Information Behavior is the totality of human behavior of International Students, concerning sources and channels of information, including both active and passive information seeking, and information use. Thus, it includes face-to-face communication with others and the passive reception of information when there is no intention to act on the information given.

Oh (2018, p. 5) adopts the use of the term Local Information Behavior referring to "human information behavior related with information about the nearby physical, spatial, social, and organizational environment."

LIBs are defined as the totality of human information behavior related to how people need, both actively and passively seek, acquire, and use local information through various information sources and technologies. This dissertation specifically focuses on international students' local information challenges in new environments and examines international newcomer students' LIBs in the context of adjusting to new environments in a host country (OH, 2018, p. 5).

According to the Theoretical Basis of this dissertation and Oh and Butler (2019), the following terms are clarified. International-common group (students that have many local conationals in Belo Horizonte); International-less-common group (students from other countries — with fewer co-nationals in Belo Horizonte); and Domestic-out-of-state group (national students that study at UFMG but are from other states of Brazil).

Local co-national context refers to the degree to which there are co-nationals available in one's local environment. International students' local co-national contexts can differ depending on the interactions of multiple factors such as

host countries, locations, universities, and social networks (OH; BUTLER, 2019, p. 1063).

This dissertation focuses specifically on international graduate students' information behavior who study or have already studied physically at the Federal University of Minas Gerais - UFMG. In addition to that, it will adopt the definitions above throughout the text.

## 4.1 Information Needs, Seeking and Sharing

There has been an increasing interest in comprehending International Students Information Behavior. "International students are one of the fastest-growing populations in higher education and, understanding their information behaviors is vital to improving information services for them." (CHUNG; YOON, 2015, p. 52).

Research related to academic issues and library use was the main focus (HAMID *et al.*, 2016; OH, 2018; OH, BUTLER, 2019; SIN, 2015; CHUNG; YOON, 2015; YOON; CHUNG 2017), as elucidated in Frame 2. "Only a few recent studies explored information behaviors in everyday life. Moreover, the studies of international students' information behaviors were limited to particular contexts, such as academic environments and the use of social network services" (CHUNG; YOON, 2015, p. 41). Thus, there is a lack of studies concerning everyday life information seeking (ELIS) of international students, especially during settlement or adjustment, according to the authors mentioned.

Frame 2 – Information Needs, Seeking and Sharing

Information need	Factor(s) that affect(s) Information Behavior	Information Source	Author (s)
Campus support services (housing, health-related, counseling, and other university benefits)	Information Seeking problems		Mehra; Bilal (2013)
	Language barriers; website interaction	Digital interfaces	Mehra; Bilal (2013)

Information need	Factor(s) that affect(s) Information Behavior	Information Source	Author (s)
Academic information needs; shopping; entertainment; living; transportation; food/drink; language information; settlement; pre-migration information; employment; housing; health related; education; making connections in the community; new culture; identity construction; housing, finance, legal, career/professional development; entertainment	Language barriers; educational status; cultural background; length of stay in host countries; complicated legal systems; credibility of the information; lack of knowledge of the new country and/or its culture	1º friends and family; 2º media (newspapers, Internet); 3º material in one's native language	Chung; Yoon (2015) and (2017)
	Language barriers; cultural background; unfamiliarity with specific information technology and systems; varying awareness and perception of library services		Sin (2015)
Information seeking in libraries and academic settings	Adjusting to the information systems of host environments; different perspectives and variables, such as specific cultures, nationalities, and previous experiences in home countries		Oh; Butler (2019)

Source: Created by the author (2021).

However, it is challenging for the students to concentrate on their academic environment without basic life information needs. According to Oh and Butler, 2019, p. 1068, "newcomer students valued survival-related, basic local information more than recreation-related local information during their adjustment."

Oh and Butler (2016) clarified, through the results of a longitudinal survey and the preliminary analysis of follow-up interviews, how the need for local information of newly arrived international students developed during adaptation to new environments. In addition, the information-seeking behavior of these individuals was also investigated.

The study also examines the relationships between local information behaviors and demographic contexts of students from the same country but from different states concerning newly arrived students from other countries. However, as newcomers to a host country, international students face several challenges, most importantly, information challenges in adjusting to unfamiliar geospatial environments. They need to learn about the culture and structure of the new environment and various types of local information such as housing, groceries, retail stores, banks, local geography, public transport, and navigation directions. Developing this kind of local knowledge is also considered essential for the general adaptation of international students' lives to new environments. Despite several studies on the adaptation of international students, these studies do not analyze local information needs and student behavior in seeking information during the adaptation period (OH; BUTLER, 2016).

These information needs could be listed as a priority, "housing, finance, health, legal, career/professional development, and entertainment" (YOON; CHUNG, 2017, p. 1). The same authors highlight that these needs start from stage 1) Pre-arrival in the students' home country and continue up to stage 2) Settlement and 3) Current stage in different proportions, according to each step.

## 4.2 International Student – Mobility stages and Information Behavior

Yoon and Chung (2017) define three stages during the International Student mobility experience. The first one refers to when the student is in the home country preparing to study abroad in another country, at the foreign university; the authors call it 1) Pre-arrival. The second stage is 2) Settlement; it is when the student arrives in the other country and is adapting to the new life. The last and third step is the 3) Current stage, when the international student feels that he/she has already adapted to the new environment and sees it as familiar.

## 4.2.1 Pre-arrival stage

Usually, the candidate to study abroad contacts the future university from his/her home country. This candidate may want to study in an undergraduate course or a graduate program. From the moment that he/she contacts the university up to his/her approval and student visa acquisition, many specifics processes may occur, which will vary according to the foreign university and its country. Due to distance and facilitation of the information flow, the candidate and foreign university's consultation of information and communication is accomplished online (RIOGA, 2017).

These processes involve the candidate's documents, confirming his/her education and language background, personal data, other information - specific to each situation and field of study. For example, in the study developed by Yoon and Chung (2017), the authors described what the international students answered through an Interview Survey:

All participants, regardless of the type of information needed, used the Internet as their main source of information, and eight of them additionally reported receiving assistance from people in the U.S. (friends, family, relatives, and/or agents of related institutions). Whereas websites were not always useful sources of information, people in the U.S. were commonly appreciated as useful sources. Websites were especially useless when the participant did not know where to begin his/her search. (YOON, CHUNG, 2017, p. 6).

As other authors have mentioned, daily information needs are essential to the international students and are exemplified in Frame 3. For example, Yoon and Chung (2017) demonstrated through the answers of nine students the kind of information that these students looked for online in the Pre-arrival stage: housing; how to fill out documents to enter the U.S.; how to obtain a drivers' license and to buy a vehicle; school information for a child; academic-related information needs; information on the universities and programs that one could apply; and courses that could be taken during the first semester.

Oh, and Butler (2019) developed a study with 149 first-year international graduate students and 57 follow-up interviewees from the University of Maryland – UMD - U.S.A. The authors categorized the students as an International-common group (students from China, India, and Korea – with many co-nationals), International-less-common group (students from other countries – with fewer local co-nationals), and Domestic-out-of-state group (students from other U.S. states).

When comparing International-common-group with International-less-common-group students, the authors highlighted a few points: International-common-group of students, before leaving their countries, would start forming online communities with co-national students already living in the U.S. Instead, most International-less-common did not experience the same contact with co-nationals before their arrival; the co-nationals that were already living in the U.S. included senior/existing and peer/new students; this interaction among co-nationals would be available online and, on their mobiles, allowing "networking and information practices in offline, online, and mobile settings." (OH; BUTLER, 2019, p. 1068); these co-national communities would keep existing even after the newest students would arrive; at last, International-less-common-group "often without existing online co-national communities in their new local area, rarely engaged in co-national networking and information practices during

their adjustment as well as before their arrival in the new environment." (OH; BUTLER, 2019, p. 1069).

According to Rioga (2017), information that the future international student obtains before leaving the home country is crucial to plan a smoother adaptation and easiness on the Settlement stage. On the other hand, not having the information may generate frustration and stress, as Yoon and Chung (2017, p. 7) explain:

Consequences of misinformation, although it is difficult to discern whether they were due to a lack of information, users' lack of abilities to find information, or users' misunderstandings, could be critical. The international student participants felt frustrated as they believed they were wasting time, money, and efforts in a new country.

### 4.2.2 Settlement stage

At the Settlement stage, the international students arrive in a different country. They tend to replace a familiar environment for the host country, introducing themselves to a new culture, university, people surrounding them, hence different information needs from a changing physical and social environment. In this process, they are challenged daily, once they go for academic goals such as socially, through a new education system, on the top of linguistic differences and cultural differences (HERTZUM; HYLDEGÅRD, 2019; HUGHES, 2005; SIN; KIM, 2013).

About this process Sin *et al.* (2011, p. 1) explain that "acculturation is the process in which an individual learns about and adapts to the socio-cultural norms of the host country. Therefore, successful acculturation can contribute toward the newcomer's productivity and quality of life." Nonetheless, information needs are considered more specific at this stage, and may affect the international students emotionally, as said by the study of Yoon and Chung, (2017, p. 7):

Two students reported academic-related information needs: information for completing coursework, including homework assignments, and preparation course work as a teaching fellow. Compared to the previous stage, information needs were more specific. Two students reported that they had emotionally difficult times at this stage. One participant directly connected their emotional difficulties with their information needs, and the other's emotional difficulties were interwoven with academic information needs, feeling emotionally relieved when he stopped searching for information. However, both stated they could not find information they needed.

Daily information needs were considered dominant for the international students to settle down in the U.S., as stated by the same authors. Such as internet, electricity, and phone

connections; how to open a bank account, and to buy a vehicle, "neighborhood information for housing, local geographical information (street/community names), cooking information, medical information, and information regarding financial support." (YOON; CHUNG, 2017, p. 7).

Worrall, Ballantyne, and Kendall (2019) published a study in which they conducted twenty interviews with international students from a Canadian university. Frame 4 summarizes settlement help and barriers identified on the data analyzed in the process of Information Sharing and technology use in the adjustment stage of these students. The authors went through the following factors: Culture, Information, Information behavior and practices, Students, Support structure, language, and Information and Communication technologies.

The culture was already discussed above, and the frame's content corroborates its importance in the settlement process.

In the factor Information the tool Information and Communication Technologies – ICTs are considered valuable to find academic and daily information. In contrast, not having information may become a barrier "when the students miss specific steps or information sources that would help, or lack access when available only via a specific ICT." (WORRALL; BALLANTYNE; KENDALL, 2019, p. 310). The researchers Oh and Butler (2019, p. 1069) agree with this point of view and highlights co-national interactions:

Although adjusting to new environments is a daunting process, co-national information grounds and information practices, through online, mobile, and offline interactions, allowed International common students to effectively acquire the rich, context specific local information needed for their transition to and decision-making in their new environments (OH; BUTLER, 2019, p. 1069).

Information behavior and practices, Students, and Support structure are interrelated by information sharing and having a person as a reference for giving information, like classmates and senior students, besides the fact that ICTs help communicates with other international students, co-nationals, friends, and family, as well. The type of information needs involved would be daily or academic-related. These connections would be fundamental in the settlement process and emotionally.

With these aspects, Yoon and Chung (2017, p. 8) mention that "as with the previous stage, people (family, relatives, professors, student center advisors, friends) and websites were main sources of information, and people was considered useful sources of information." Oh (2018) expresses his point of view about the co-national context:

International students who had many co-nationals in their new environment tended to perceive co-nationals as their main information source. [...] Effectively acquired local information through their local co-nationals in offline, online, and mobile settings, while international students from other less common countries did not engage in such local co-national interaction and social information practices (OH, 2018, p. 1-2).

According to Worrall, Ballantyne, and Kendall (2019), language was not seen as a barrier by participants. Although not knowing specific words and phrases can cause communication issues, culture shock. The researchers Yoon and Chung (2017) compared immigrants and international students and said that there are common characteristics between them except for language differences. "Although international students feel they are not confident with their English language skills, language was not a major information need or barrier when seeking information." (YOON; CHUNG, 2017, p. 10).

The last factor is information and communication technologies, which act as a channel that makes connections possible between students, friends, and family from their home country. Likewise, entertainment and academic study needs and desires. Youn and Chung (2017) reported the prominence of information sources at all three stages of mobility, while people in organizations would be helpful, creating emotional support and satisfaction with the information search results:

Characteristics of information sources that are used at each stage of settlement process People (family, friends, relatives, and staff in international students' offices) in the U.S. and the Internet were the main sources of information for international students at their pre-arrival and settlement stages. International offices and departments were also reported as sources of information, but whenever participants expressed satisfactory services or appreciations, they referred to a specific person in the organization. It seems that in addition to the information itself that they obtained, personal/emotional support made international students feel satisfied with their information search results. As they settled down, their sources of information became diverse, expanding to include social media and various online information resources, as well as friends (YOON; CHUNG, 2017, p. 9).

Frame 3 - Summary of Settlement Help and Barriers Identified

Factor	As help	As barrier
Culture	Learning more about new culture ads to a stronger feeling of "fitting in."	Not knowing intricacies of new culture can lead to confusion in ICT use and information sharing.

Factor	As help	As barrier
Information	ICTs and those who provide them help find academic and everyday information useful for studies, settling in.	Can be difficult if international students miss specific steps or information sources that would help, or lack access when available only via a specific ICT.
Information behavior and practices	Sharing can help with relaxation, emotional support; information found can be crucial to settlement.	Not seen as a barrier by participants.
Students	Classmates and "senior" students can help mentor, be a first source for information, especially of an academic nature.	Not seen as a barrier by participants.
Support structure	Connections with new friends (especially when from same / similar home culture) or local family / family friends, in person and via ICTs, a huge help for many international students. Academic connections and information can help expose to new contacts and social ties.	If introverted, can be difficult to make new friends at first and feel sidelined from the "majority."
Language	Not seen as a barrier by participants.	Lacking knowledge of specific words and phrases can cause communication issues, culture shock.
Information and communication technologies	Technology supports informational and emotional connection to friends and family in home country, entertainment and academic study needs and desires.	Lack of use of specific ICTs not popular in one's home country can cause informational barriers.

Source: Worrall, Ballantyne, and Kendall (2019, p. 310).

# 4.2.3 Current stage

After the international students settle down, they establish a routine and feel that their environment is more familiar than when they had arrived. However, Hertzum and Hyldegård (2019) point out the relevance of acculturation from Pre-arrival and continuing even after introductory activities have ended. Furthermore, the authors remember the role of the host universities in this context and the importance of studying international students' information needs once they are settled.

Along with the acculturation process through each stage of mobility, the information needs are always present, but their focus changes. Youn and Chung (2017) say that most

Settlement stages compared to academic and campus life. In addition to having people based in the U.S. and the internet as their primary sources of information. At the Pre-arrival stage, the information needs of the international students were broader, and the level of satisfaction with internet search low. Oppositely, once they settled down in the U.S., their information needs were more precise, and they felt more confident with search experiences. Besides that, the internet and people continue to be the main sources of information for these students, although

[...] their information needs, and sources of information became diverse; the increased use of social media, was especially noticeable [...] Participants used a variety of social networking services, such as Craigslist, Facebook, Instagram, YouTube, etc. Also, it was observed that international students were getting familiar with available information sources. (YOON; CHUNG, 2017, p. 8-11).

In the same study, Yoon and Chung (2017, p. 9) present the type of international students' information needs on the three stages of mobility: Pre-arrival, Settlement stage, and Current stage.

At all three stages, information needs related to their daily lives were dominant. At the prearrival stage (before entering the U.S.), information needs were broad; at the settlement stage, timesensitive and critical settlement-related information needs were dominant; and at the current stage, more diverse information needs were reported, and information needs became specific.

### 4.3 Information Sources and social media

Sin and Kim (2013, p. 108) underline that international students' information seeking "is still not well understood." Likewise, according to Hamid *et al.* (2016), there is a lack of research related to international students' information-seeking towards social media. The authors justify the necessity to comprehend this scenario, having the definition of information-seeking behavior as a reference, based on two reasons:

First, it will help to correlate the social media context as an information-seeking source during research. Second, this understanding will enable adaptations to be made to social media in order to change the information-seeking behavior of international students with regard to their information needs (HAMID *et al.*, 2016, p. 644).

Worrall, Ballantyne, and Kendall (2019) elucidated the importance of Information Communication Technologies supporting immigrants' informational, social, and emotional needs and desires once they are in a different context and environment. When focusing on international students' information sharing, the researchers explain the factors that influence it:

Information sharing in academic and everyday life contexts is influenced by individual, cultural, community, and societal contexts and various social, emotional, and cultural support factors and social and community ties, including altruism, communality and social interaction, difficulties in communicating or translating, empathy, enjoyment, perceptions of cultural or information values, reciprocity, reputation or status, self-efficacy, social cognition, social isolation, and social or cultural norms (WORRALL; BALLANTYNE; KENDALL, 2019, p. 307)

As a result of a systematic literature review (SLR) aiming to examine "information-seeking trends among international students while using social media." (HAMID *et al.*, 2016, p. 643); one of the research questions of the SLR was to identify the information needs related to international students, which requires solutions through information seeking. After analyzing the 71 articles selected, here they are:

Academic related - Academic adjustment, academic performance, international service programme, academic difficulties, adapting to academic work, future career adapting, method of teaching problems, admissions and selection, orientation services, student activities, academic life, living on or off campus, transportation, visa, courses and education./ Financial related - Financial constraint, fee, financial aid, part-time job, lacks adequate research support and scholarship./ Sociocultural related - Personal adjustment, social adjustment, religion differences, cultural adjustment, relationship of international students and teachers, food, lifestyle, language barrier, English difficulties, loneliness, acculturation stress, friendship and interaction./ Health-related - Health insurance, climate, health services, living services (HAMID et al., 2016, p. 651-653).

In the same study, the authors identified three social media roles in facilitating the information-seeking behavior of international students: social interaction, information source, and education advocacy (HAMID *et al.*, 2016).

On the first, social interaction, Hamid *et al.* (2016) pointed out that some international students find it difficult to express themselves in different cultures because they deal with communication problems with the local students and at the same time with the teachers. Furthermore, when international students use different technologies, such as Skype, Facebook, and e-mail to interact, these social media stimulate the interaction with local students. As a result, they feel good about learning new cultures and sharing their problems with other international students. The role of Facebook is highlighted since it promotes different connection strategies (public, private, multiple, lightweight, and substantive communication). However, it is challenging to seek information and interacting with other people altogether.

Information sources are the second one. The authors affirm the significance of Social Network Services (SNSs) supporting the international students' information needs, especially in their loneliness and information-seeking process. Such as Twitter to track information and

share it in a faster way. Skype to communicate with their families and friends trying to overcome homesickness. Another one used is YouTube videos in their learning classroom homework. Besides that, search engines come first to obtain information compared to online databases and libraries.

Education Advocacy is the third role that was identified in the study. Hamid *et al.* (2016) stated that undergraduate and graduate students seek information from different social media platforms in the academic context. The academic performance of international students is impacted by adjustment issues, which can be broken down into placement services, academic processes, and financial problems. In this context, social support comforts these students psychologically to release the stress of acculturation, mental health, and emotional growth. Thus, international students use social media to connect with other people and institutions.

Social media is also an essential source of health. People use it to seek health information, express themselves about it, and share knowledge. They ask questions on different social media platforms to know the point of view of specialists. Besides using social media as social health support, emotional needs and information sources are the first reasons people use it. Concerning international students, they use Facebook to seek health issues and their findings to treat themselves. Furthermore, the contact they have with friends and the faculty through social media help them through adjustment.

The authors Hertzum and Hyldegård (2019) clarify that the students tend to use few source types that are easier to access simultaneously. The authors interpreted these reactions to avoid stress. Furthermore, their findings on the following study were:

With regard to participants' use of online sources Google and the internet were selected for everyday incidents and issues like housing, healthcare, job, and food. Entertainment issues were less frequent. Online sources used for study-related incidents included the in-house systems at the university, such as the learning platform with course materials, which reduced students' needs for actively acquiring or searching study-related material themselves. Social media were only used by some participants, who joined Facebook groups and networks for international students (HERTZUM; HYLDEGÅRD, 2019, p. 13).

On the study published by Worrall, Ballantyne, and Kendall (2019), Frame 4 is describing Information Communication Technologies in common use by international student during the Settlement stage:

Frame 4 - List of ICTs in Common use by International Student Participants – Settlement Stage

ICT type	Common examples
Academic	Google docs, Microsoft office, university web sites (home page, library, learning management system, course registration)
Communication	Facebook messenger, WhatsApp, email
File & project management	Google drive
Finance, shopping, news, entertainment	Amazon, banking apps, grocery store apps
Hardware	Computer / laptop, cell phone
Navigation	Maps (Apple, Google), municipal transit app
Social media	Facebook (including events, groups), Instagram
Utility / Misc.	Google search

Source: Worrall, Ballantyne, and Kendall (2019, p. 308).

Worrall, Ballantyne, and Kendall (2019) emphasize that the use of Facebook Messenger and email by the interviewees for academic purposes and daily interactions with other students, friends, and colleagues in their home countries. Besides that, the most common social media sources were Facebook and Instagram for everyday information practices, along with the university and student groups, such as events happening on or near campus. Other utilitarian sources used were Google Search and WhatsApp, a messaging app in everyday use outside North America, for daily communication and academic issues.

Because the students came from different cultures, besides their Settlement processes, the ICTs used in daily life were similar to some students and different from others. Such as Baidu Search, Vibr, WeChat, and Weibo. On the other hand, the participants attached firmly to not popular ICTs in North America had adopted many social media and communication apps, like Facebook, Facebook Messenger, and Instagram – very common in Canada, while using their existing apps.

Chung and Yoon (2015) also published a study that analyzed the most used information sources by the international students, in this case, considering the three stages of mobility: Prearrival, Settlement stage, and Current stage. As presented in Table 2:

Table 2 – Sources for information seeking – all three stages – Pre-arrival/Settlement/ Current Stage

Source	N° of activities	%
Search engine (Google, DuckDuckGo)	64	36

Source	N° of activities	%
Social network services (blogs, Twitter, Instagram, Facebook, Yelp)	32	18
Friends and Family	21	12
Specific website	19	11
YouTube	16	9
University website	9	5
Printed materials (book, magazine, etc.)	7	4
University library site	3	2
Online magazine/news site	3	2
Apps	1	1
Other related person/ organization	2	1
Google Scholar	1	1
Total	178*	100

<sup>\*</sup>The information source was not reported for 85 information activities.

Source: Chung and Yoon (2015, p. 48).

The researchers affirm that the participants of their study have a wide variety of information needs, besides using a wide range of information sources. For example, it can be seen from the data in Table 6 that 36% of the activities come from search engines. Social networks followed them with 18% and friends and family with 12%. It corroborates what other authors mentioned previously that the internet and people are the primary information sources used by international students. Another point is that the students use the SNSs significantly, depending on the type of information needs. Nonetheless, "this result indicates that the participants tend to depend on people within their social networks and previous experiences on specific websites when seeking information." (CHUNG; YOON, 2015, p. 48).

For Worrall, Ballantyne, and Kendall (2019), the ICTs are essential to the international students since the Pre-arrival stage, when they are still in their home countries. Then, the use of the ICTs increases as they move to Canada. If not, they adopt new ICTs and adapt the existing ones to their current information needs and desires, having social and emotional support simultaneously. That is why the ICTs are considered more "as a help to and in support of settlement than as a barrier" (WORRALL; BALLANTYNE; KENDALL, 2019, p. 313).

# 5 THE INTERNATIONALIZATION OF HIGHER EDUCATION IN BRAZIL – GRADUATE PROGRAMS

The BRICS countries (Brazil, Russia, India, China, and South Africa), according to Altbach (2016), are expanding rapidly, and many observers see these countries as dominant economies in the coming decades. In the education internationalization context, the four countries are in a paradox. At the same time, none of them are yet academic superpowers (China comes closest), they are considered behind the reference academic centers worldwide. All except Russia are rapidly expanding educational systems, and all have goals of improving their global standing and building top-ranking universities. Nonetheless, the four BRICs are significant regional centers, influencing neighboring countries and providing academic leadership in their respective areas.

According to Westphal and Gisi (2019), Brazil has reached the 9th world economy level and stimulated market demand for skilled labor, driven by economic growth over the past decade. "Thus, higher education has come to occupy a prominent place in discussions about the need to train qualified professionals to meet the new demands of a country struggling to establish itself among the great world powers" (WESTPHAL; GISI, 2019, p. 371).

From the 1980s on, Aveiro (2015) affirms that the country began to invest in this cooperation, financing scholarships and supporting the exchange in technical cooperation. Furthermore, an important initiative took place in 1987 when the Brazilian Cooperation Agency (ABC) was created by the Ministry of Foreign Relations (MRE) to expand the country's activities in cooperation with southern partners.

The report aims to contribute to the mapping, description and dimensioning of the Brazilian contribution to international development and the debate currently underway here and in the various international forums in which the topic has been discussed. [...] The mapping of these actions means knowledge and analysis of data and information, in order to allow a perfect understanding of the products and services, besides the objectives and the results obtained through the actions of the federal public administration agencies and entities abroad or with foreigners in the national territory, as part of the management of technical cooperation, health care, the environment, science, technology and innovation, agriculture, training of foreign personnel, human rights, sanitation, and public management (BRASIL, 2018, p. 12).

In this scenario, Capes or the Higher Education Personnel Improvement Coordination of the Ministry of Education Federation (MEC) is an essential organization for expanding and

consolidating Stricto Sensu<sup>4</sup> graduate studies (master's and doctorates) in all states (BRASIL, [20--]). Furthermore, since 2007, it has also started to train primary education teachers, expanding the scope of their actions in training qualified personnel in Brazil and abroad.

CAPES activities are grouped into the following lines of action, each developed by a structured set of programs:

- a) Stricto Sensu graduate evaluation
- b) access and dissemination of scientific production
- c) investments in high-level human resources training at home and abroad
- d) promotion of international scientific cooperation
- e) induction and promotion of initial and continuing teacher education for K12 in the presential and long-distance learning formats.

The main objective of postgraduate courses should be to train masters and doctors capable of facing new scientific challenges with intellectual independence, contributing to Brazil's scientific, technological, economic, and social progress as an independent nation immersed in a rapidly evolving globalized world. (CAPES, 2018a, p. 08).

Every four years, Capes evaluates the Graduate Programs. One of the parameters analyzed is the "adoption of international standards of knowledge development in the area as a reference for the evaluation process, which are recommended in the documents of the area" (CAPES, 2021).

International cooperation is seen as a necessary element of public policy for the education of a country, a joint work between nations that aims to collaborate in the execution of objectives of common interests among those involved. [...] Intercultural exchange, the training of researchers and the improvement in the formation of undergraduate students is fundamental for the advancement of science and, therefore, for the development of society, as well as the exchange with countries with economic and social difficulties. It has been an initiative that highlights Brazil's effort to contribute to overcoming social inequalities between countries (WESTPHAL; GISI, 2019, p. 380).

### 5.1 Brazilian Graduate Programs

This section mentions four documents. There are two dissertations, and the other two are articles (both published in journals).

<sup>&</sup>lt;sup>4</sup> Stricto Sensu postgraduate courses comprise master's and doctoral programs open to candidates who have graduated from higher education courses and meet educational institutions' requirements and the student selection notice (Art. 44, III, Law No. 9,394/1996). At the end of the course, the student will obtain a diploma (BRASIL, [20--]).

The first publication is by Rezende (2015), which highlights academic studies on the internationalization of Higher Education. Unfortunately, it is not considered numerous, especially about studies whose analysis focus is the Brazilian reality.

With the results, the mentioned study intended.

[...] to contribute theoretically and academically to the discussion on the internationalization of Higher Education with a focus on the issue of access. In practical terms, assist the leaders of higher education institutions in the formulation of new policies and new designs for more internationalization programs, accessible, inclusive, and democratic (REZENDE, 2015, p. 8).

Rezende (2015) studied access to UFMG's international mobility programs, comparing it with three foreign universities in Germany, Portugal, and Spain, to determine how mobility programs influence university students' practical application and exchange within the scope of undergraduate courses. To this end, the author cites how public policies for the internationalization of education are treated with UFMG, considering the close relationship between DRI and the Ministry of Education (MEC), among other institutions. In this discussion, he believes the role played by Capes, with the Ministry of Science, Technology, and Innovation (MCTI), among other entities associated with the National Council for Scientific and Technological Development (CNPq). Unlike other internal bodies of UFMG, DRI also maintains a close relationship in actions, guidelines, and practices and the search for joint programs with the Ministry of International Relations (MRE) (REZENDE, 2015).

In addition, UFMG also seems to be advancing in the use of systems suited to the demands of administrative procedures related to university internationalization, particularly international mobility programs (REZENDE, 2015). This study also described the structure of UFMG for internationalization, exposing statistics on the number of students, departments involved, among other elements. However, it emphasizes the students' mobility from leaving Brazil to study, called "flow out," exposing the options for programs, enrollment, and partnerships between the university and organizations in the international sphere. The author also mentions the "inflow" when international students come to study at UFMG, showing the university's numbers and infrastructure to receive them. However, this is not the main subject explored.

The second publication is by Lima (2017), highlighting a lack of research on international students who come to Brazil and studies exploring the motivations of Brazilian students going abroad. Concerning developing countries, according to Lima (2017), there is a more significant movement of students leaving rather than entering, as is the case in Brazil. In

this context, projects and actions to support these students occur smaller than projects for receiving students and researchers from other countries compared to Northern countries (LIMA, 2017).

The main objective of this study was to research the motivational processes experienced by international students at the Oswaldo Cruz Institute (IOC) of the Oswaldo Cruz Foundation (FIOCRUZ) in Rio de Janeiro. Data were collected through semi-structured questionnaires answered by thirteen students. The Self-Determination Theory<sup>5</sup> was chosen to analyze the students' motivations, as it integrates natural psychological elements and environmental and social aspects. The collected data was analyzed using content analysis (LIMA, 2017).

The IOC is responsible for training qualified professionals in Public Health through Graduate programs (Master's, Graduate Programs, and Specializations). All opportunities for Brazilian and international students are disclosed through the institution's website or development agencies when bidding documents are issued. In addition, two international courses at Fiocruz, coordinated by the IOC, develop masters and doctors in Biosciences and Health in partnership with institutions in Argentina and Mozambique (LIMA, 2017).

Fiocruz has a vast administrative and public service structure, located in branches on the campus and on the institutional website. Within the physical unit and the unique service structure, Fiocruz and IOC make available to serve international students. There is also the Fiocruz website, which may be in Portuguese, Spanish, and English. The options are available at the top of the page so that any user, Brazilian or not, has access to information about the institution (LIMA, 2017).

This site provides a specific page for international students with information on passing programs, documentation, insurance, vaccinations, assistance, and services. In addition, telephone contacts and e-mails for the International Education sector, the Center for International Health Relations (CRIS), and the address of Fiocruz's Facebook pages and the Graduate Students Association (APG) can be accessed) Fiocruz. The user is informed when academic activities will be happening in Portuguese and some public examinations that may require taking the Portuguese Language Proficiency Examination (Celpe-Bras), highlighting the importance of basic knowledge of this language (LIMA, 2017).

<sup>&</sup>quot;Self-determination theory grew out of the work of psychologists Edward Deci and Richard Ryan, who first introduced their ideas in their 1985 book Self-Determination and Intrinsic Motivation in Human Behavior. They developed a theory of motivation which suggested that people tend to be driven by a need to grow and gain fulfillment." Fonte: https://www.verywellmind.com/what-is-self-determination-theory-2795387

On Fiocruz's website, information about accommodation and essential contacts for students can be found in the three languages mentioned (LIMA, 2017). The author recognizes that the quality and difficulty in seeking information about the desired course can be essential in an individual's choice to study in another country. The main motivations found for taking a Graduate Degree in an institution abroad were: the search for quality education, the possibility of getting to know a new culture allied to the opportunity for good academic training, the opportunity to develop research in an internationally renowned environment, the institution and funding of the scholarship. Other reasons were also relevant in choosing Brazil as a destination, such as the offer of research areas that do not exist in the countries of origin and proximity, in the case of South American students (LIMA, 2017).

The study results by Lima (2017) indicated that the motivation of students to study in another country is characterized by a complex system of positive factors and is reflected in terms such as happiness, joy, friendship, hope, and longing. The term "violence" deserves to be highlighted in the results, which justifies discussion and concern. It is a possible negative factor about the motivation to remain in the institution and close the program (LIMA, 2017).

Despite the structure available, the results pointed to the need for greater internationalization of the different institutional sectors, as some problematic situations were reported with the institution's faculty, such as prejudice and misinformation. Holding multicultural events, such as lectures, courses, parties, meetings, or the promotion of continuing language training for all workers, suggests that, gradually and over time, all of Fiocruz assume a broadly internationalized posture. These demands must be considered necessary, as it is the health of the research student and even their literary production that can be affected in the face of critical situations that, in some cases, could be resolved with institutional support (LIMA, 2017).

Freitas (2015) document focused on the internationalization process of Brazilian Graduate programs, considering their increased participation in international operations. In this case, all the objectives proposed in the process and its actions involve the top management, professors, employees, and students. The four main strategic objectives presented for the Graduate programs are:

Bilingual educational environment Internationalized scientific and technological production International cooperation, by sending and receiving students, professors and researchers in general

International visibility of the program, together with other actions, such as: including the creation of trilingual electronic sites; participation in congresses;

international scientific meetings with institutional centers for efficient internationalization; publication in high-impact international journals; and encouragement to Brazilian periodicals, in the search for an international standard, without losing their identity and characteristics (FREITAS, 2015, p. 81).

One of the most important actions described in the study by Freitas (2015) is the importance of information management in all sectors, in the context of Graduate Studies or universities. In this sense, it is necessary "to establish monitoring mechanisms, indicators, collection, organization, and dissemination of information on the activities and initiatives of internationalization in progress" (FREITAS, 2015, p. 81).

In conclusion, the author emphasizes the importance of planning led by the Graduate Program coordination body, involving all program members and the university sectors that have relations with the internationalization process. Nonetheless, with a view to the training of cooperative institutional work, not only based on personal agreements between professors and research groups abroad. The author also supports her ideas in Capes' National Plan for Graduate Programs (PNPG), noting that "[...] today it is not possible to imagine science without internationalization" (FREITAS, 2015, p. 82).

The fourth and last publication of the first theme is Neves, Lavarda, and Martins (2019); in this work, the authors state that the internationalization of Brazilian Graduate Studies is one of the main goals of the National Graduate System, registered in the PNPG 2011-2020 and developed by Capes. According to academic performance, at four-year intervals, programs receive grades from 1 to 7, and those classified in category seven are considered competitive in the international context (NEVES; LAVARDA; MARTINS, 2019).

Graduate studies are considered a motivator in the internationalization process of Higher Education. To confirm this statement, the authors cite Capes-Print Program, which was implemented to stimulate the internationalization of Higher Education institutions and research institutes through the expansion and improvement of internationalization actions in programs that offer Master's and Graduate courses.

In the study by Neves, Lavarda, and Martins (2019), data were collected through document analysis and semi-structured interviews with the coordinators of the selected Graduate programs. The limitations found in this research refer to the study of strategies within the programs' plan, as only the coordinators' point of view was considered. Furthermore, the research method did not address the possible institutional approach, which could have collaborated and impacted the internationalization of the studied programs, even if indirectly.

The internationalization of Graduate programs is characterized by the contacts of teachers and their relationship networks, which culminate in their insertion in the international educational scenario, a perception highlighted by other authors mentioned in the study. This situation can create a program dependency relationship with these spontaneous actions. Based on the interviews and documents analyzed, it was understood that the internationalization strategies of the Stricto Sensu Graduate programs that obtained the maximum score in the 2013 CAPES triennial evaluation, in the case of the federal public university studied, occurred in a strongly articulated way. This articulation is manifested when professors' actions occur through contact networks, acting in groups and research centers, and participation in congresses, publications, and other international events (NEVES; LAVARDA; MARTINS, 2019). The authors identified some internationalization practices, such as:

(i) international exchange programs for professors (post-doctoral) and students from the programs (mainly related to the realization of sandwich doctorates); (ii) carrying out projects in cooperation with researchers from foreign universities, which often result in (iii) joint publications in indexed journals of high international relevance; (iv) the participation of professors in the organization of international conferences and seminars, as well as (v) the presentation of articles by professors and students in international events of high relevance in the program's area of activity; and (vi) the doctoral coguardianship agreements (NEVES; LAVARDA; MARTINS, 2019, p. 102).

The limitation found by the authors concerns the fact that only program coordinators were interviewed. Based on the study results by Neves, Lavarda, and Martins (2019), the need for graduate programs to implement articulated and institutional strategies that involve faculty, staff, and students throughout the internationalization process of Graduate Studies was emphasized.

## 5.2 International students' perception about Brazilian Higher Education Institutions

Regarding this topic, two articles are analyzed, one published in a journal and the other in a conference.

The work by Silva and Lima (2013) was published a year before the World Cup was held in Brazil. The study highlights the country's context at that time, attracting more international students, with the perspective of a promising country that could offer opportunities. In this case, Brazil has become a destination option for international students, even if this was not a reality before compared to other countries, considered a priority option for these students (SILVA; LIMA, 2013).

The authors justified the data collection, built from interviews, with a semi-structured script, which addressed the perception of students received by Brazilian educational institutions. These institutions were represented by two universities in São Paulo and one in Belo Horizonte, which did not reveal their names in the survey. The authors identified several reasons that might encourage people to study abroad. Highlight as main:

[...] information about the institution, Undergraduate courses, enrollment requirements may correspond to the first impact on services offered in the future. Therefore, this information can be crucial when choosing an institution, even if the choice results from a combination of other factors. Nonetheless, the university's academic reputation, the quality, and experience of the faculty, the attractiveness and atmosphere of the campus, the reputation of the courses offered, the curriculum associated with the pedagogical practices explored, the profile of the student body that it attracts, the social value of issuing diplomas, among other factors. Thus, the sum of the positive evidence that students interested in an exchange program can access (SILVA; LIMA, 2013, p. 6).

Throughout the investigation, it was observed that the perception and influence on the students' decision processes regarding choosing a Higher Education institution for digital resources are cautious. This impression can occur through offering a well-organized website, the speed in answering e-mails, and the quality and relevance of the information sent. Furthermore, Silva and Lima (2013) cite as an initiative that can generate a good impression for students the publication of posts and testimonies on the social networks of other students about the type of reception on campus, since this action can be valued by international students, so to influence the opinion of scholars interested in a particular university.

In addition to the visibility and student attraction strategies, Silva and Lima (2013) mention the value assumed by the teaching-learning process. The authors emphasize the relevance of universities in creating multicultural environments and curricula, which can respect each person's learning style, enabling the constitution of an increasingly intercultural classroom.

The last document on this topic is the article by Bello and Guerra (2018). This study clarifies that one of the most common forms of migration is the search for specialized and quality higher education, indicated by the significant increase in the number of international undergraduate and graduate students. The research is justified by the scarcity of international and national publications focusing on Graduate Studies, particularly within the scope of Latin America. Furthermore, the number of publications is even smaller for international students in Brazil, compared to the information available about Brazilians in other countries (BELLO; GUERRA, 2018).

The previous research aimed to investigate the association between coping strategies and reinforcement of values and subjective well-being of Latin American graduate students in Brazil. The experience of moving to another country in the face of an unknown culture can promote stressful situations, whose students will need to adapt adequately to balance their well-being with personal, educational, and professional goals. Furthermore, entering the university itself can be considered stressful for students (BELLO; GUERRA, 2018).

According to Bello and Guerra (2018), when migrating to other countries, a new routine emerges for students, permeated by cultural values different from their own, in addition to the need to learn a new language. This research shows that international students can develop mental health problems such as depression, anxiety, paranoid reactions, and sociocultural problems such as language and social activities difficulties, ethnic discrimination, and academic problems with excessive demands and failure.

## 5.3 Education Internationalization at Federal University of Minas Gerais (UFMG)

Since the first 60 years of UFMG foundation, as it is described in UFMG's Internal Development Plan from 2018 to 2023, the university has practiced internationalization, sending professors to Ph.D. programs abroad, establishing international agreements and partnerships, mobilized by research groups, besides the participation of professors in international events and the movement of visiting professors coming back and forth UFMG (2018c).

Organizational arrangements at UFMG evolved. In 1998 the International Cooperation Office was created, in place of the International Cooperation Coordination. At the same time, the Advisory Office also changed to the status of Pro-rectory. Later in 2002, the department was renamed the International Relations Office - DRI and was reconfigured (UFMG, 2018c). The DRI is currently the department that articulates the internationalization actions of UFMG and projects it on the world scene, promoting internal and external activities (UFMG, 2018c).

Central Administration Plan (Plano da Administração Central), referring to the 2014-2018 management, entitled Contemporary UFMG Program, is quite broad, covering several areas and, of course, requiring the participation of other departments of the university. Therefore, based on this proposal and related to the International Relations Office, specific strategic goals were elaborated for the internationalization of UFMG within the 2014-2018 management. Below are topics mentioned in the document and some subtopics, which were selected based on their connection towards the objectives of this research:

Additionally, several planning and actions have taken place at the university over time. The Internationalization Proposal, which is in the 1. establish strategic partnerships - Intensify participation in Latin American, African, and Portuguese-speaking membership networks.

- 2. strengthen and diversify of cooperation regions Consolidate the role of the Centers of Specialized Studies in specific themes of countries or geopolitical areas as a multicultural space of continuous interaction, ensuring the flow of Brazilian and foreign researchers in diverse areas of knowledge.
- 3. increase institutional visibility Enhance UFMG dissemination actions, making it more attractive to foreign students and researchers, such as the creation of specific materials, along with foreign language dissemination networks, participation in State missions and funding agencies, and articulation with ambassadors and the diplomatic corps.
- 4. support for the institutionalization of cooperation projects.
- 5. strengthen mobility programs Expand the presence of foreign students and professors at UFMG, institutionalize their integration into the UFMG community.
- 6. expand language proficiency actions Improve the project of teaching Portuguese as an Additional Language.
- 7. infrastructure support Provide a better infrastructure for the reception of students and researchers from abroad Accelerate the process of drafting and signing conventions and agreements Establish a housing program for exchange students and visiting professors Host international events that contribute to the internationalization of the institution (UFMG, 2018c).

As a result, the most recent numbers show that DRI has the following agreements:

Six hundred twelve current legal instruments, 434 partner institutions, 54 countries with which UFMG sustains cooperation and an average time of 162 days until the convention is officially validated (in 2017)" Censo (UFMG, 2018a). When it comes to receiving international undergraduate and graduate students, the university shows the decrease of this number through time, in both cases. As it can be seen on the table that follows from 2014 to 2017:

Table 3 – Total of Foreign Students at UFMG – 2014-2017

Foreign students at UFMG		Year		
International Exchange Program Students	2014	2015	2016	2017
Undergraduate Exchange Program Students	227	205	200	161
Graduate Exchange Program Students	16	20	21	32
Total number of International Exchange Program Students at UFMG	243	225	221	193
Regular Foreign Students	2014	2015	2016	2017
Regular Undergraduate Foreign Students	113	100	115	111
Regular Graduate Foreign Students	1036	1067	643	718

Total Number of Regular Foreign Students at UFMG	1149	1167	2016	829
Total of Foreign Students at UFMG	2014	2015	2016	2017
Total of Undergraduate Foreign Students	340	305	315	272
Total of Graduate Foreign Students	1052	1087	664	749
Total Number of Foreign Students at UFMG	1392	1392	979	1021

Source: Adapted from UFMG (2017) apud UFMG (2019a, p. 61).

The data from 2017 exposed above about the Foreign students at UFMG is even more detailed by the Host Sector of DRI on the Censo of 2018 document: there are 429 undergraduate students (including naturalized Brazilians)/ 764 graduate students (including naturalized Brazilians)/ Percentage of foreigners in the student body (2017 data): Undergraduate course: 1,22% (foreign students) /Graduate Programs: 5.25% (foreign students). These international students come from at least 43 different countries.

These numbers represent different realities, especially about foreign graduate students, who may come to UFMG with different research purposes and everyday information needs at a certain level.

In this case, all the foreign graduate students' processes had gone through DRI and its sectors. Nowadays, the International Affairs Advisory (Assessoria de Assuntos Internacionais) of PRPG is responsible for these processes. However, the transition of managing these procedures between DRI and PRPG to deal with these students was not clear after all the researcher's efforts. Therefore, the steps that were taken are detailed in sequence.

In order to gather and organize the information that follows, the researcher consulted the following sources:

- a) Relevant websites and annual reports of UFMG
- b) DRI: websites, reports, and staff. A staff member from DRI > (Operations and Information Management was very receptive about clarifying the research)
- c) PRPG: websites, reports, and staff the contact to PRPG also was followed by telephone calls and email.
- d) Individual graduate students were used as a great source of information about their own experiences or of people they either know or have heard of; contacts through emails and telephone calls were also necessary to talk to the workers from DRI and PRPG.

# 5.3.1 UFMG Communication and Information

This section is originally part of the Plano de Desenvolvimento Institucional - PDI de 2018-2023, and the following items are part of it: Institutional Communication, Academic Production Dissemination, Informational Governance, Academic Registration, and Information Technology.

After a careful analysis of the document mentioned, only the item Institutional Communication will be detailed here due to the connections with the theoretical framework proposal. So, Institutional Communication aims to

foster, internally and externally, the public knowledge of UFMG, its projects, policies, and achievements; contribute to the development and enhancement of a solid and consistent institutional image; and guarantee public access to information about the University to enable criticism and social control, dimensions that fall within the field of Public Communication (UFMG, 2018b, p. 217).

According to Plano de Desenvolvimento Institucional - PDI de 2018-2023, it is necessary to formulate a communication policy capable of accounting for the diversity of objectives to be achieved and the audiences with which the University seeks to interact. This policy must also reorganize the dynamics and logic of production of the so-called traditional media (Radio UFMG Educativa, TV UFMG, Bulletin UFMG), so-called for their transmissive and analog character, incorporating and putting in interaction expertise and strategies of communication in the contemporary world. In a context of reconfiguration of the media space, marked by participatory logic and network interconnection, in addition to the changes experienced by UFMG - with significant changes in the profile of the public served, in the courses offered, in the forms of access, in the opening hours, in the characteristic of multicampus – it is necessary that this communication policy can re-qualify the processes of production and distribution of informative institutional content.

The institutional communication has as objectives:

- 1. Articulate and improve strategies communication products, relationship, and positioning actions that aim at a local, regional, national and international level, to confer institutional visibility for UFMG.
- 2. Recognize the particularity, which characterizes a university institution, of the polysemy that implies communicative porosity, which informs those different actors to express their opinions from the University. However, when this manifestation is on behalf of the Institution, there are actors, channels, and devices whose mission is to express the official position of UFMG (UFMG, 2018b, p. 228).

"The public communication proposed at UFMG must ensure the prevalence of the collective interest and promote transparency and quality of services offered, in addition to privileging practices that favor the exchange and sharing of information" (UFMG, 2018b, p. 218). Furthermore, the same document emphasizes that the communication should intertwin between two perspectives of action – internal and external to the University – that social communication strategies are structured to allow the desired visibility to the activities and the Institution itself. This way – which is known to be necessary but is certainly not the only one – is that political legitimacy is obtained for their claims and the guarantee of the right to information about university life to all segments that work, or they use it. These are the Institutional Communication actions:

- 1. Promote the institutionalization of CEDECOM at UFMG.
- 2. Intensify and qualify the editorial space occupied by UFMG in specialized news and general interest in the country and abroad, contributing to expanding its internationalization process.
- 3. Guide relevant social issues and periodically promote internal campaigns that generate reflection and the adoption of affirmative actions by the entire UFMG community.
- 4. Establish new milestones for UFMG's presence in contemporary and collective forms of communication, collaboration, and interaction hosted on the Web.
- 5. Provide UFMG with mechanisms that favor the synergistic and systemic communication action through the qualified insertion of CEDECOM in the community and strengthening its extensionist and transdisciplinary dimensions (UFMG, 2018b, p.229).

CEDECOM is the result of the merger – not yet institutionalized – of the Social Communication Coordination (CCS) and the Audiovisual Center (CAV), responsible for formulating and executing institutional communication actions. The Plano de Desenvolvimento Institucional - PDI de 2018-2023 highlights that CEDECOM is the primary mediator with the press, seeking to meet demands presented by journalists from mass media and other communication devices such as blogs, videoblogs, and others, actively disseminating events, projects, programs, and actions of interest to the institution itself.

CEDECOM is also responsible for working together with the University's communication offices - a survey carried out in 2016 pointed to the existence of communication structures, in addition to the Communication Center itself, in 21 Administrative Units, 12 Academic Units, and in nine projects and programs - in mediation relationship with the press, especially in times of crisis. Therefore, CEDECOM's attributions are strategically related to management processes, serving the Academic and Administrative Units of UFMG by

developing actions to provide visibility to UFMG's projects and programs through the media managed by the University and interaction with the press.

One of the actions being the UFMG Portal. In 2017, close to the 90th anniversary of the foundation of UFMG, the University launched its new internet portal, designed to facilitate user access to information about the Institution and increase its visibility. The Portal creation was based on the right to information, the internationalization of the Institution, the increase in the social diversity of the University Community, the more significant insertion of the University in society, and the offer of various services (UFMG, 2018b). The new UFMG Portal follows the Federal Government's accessibility rules.

Besides the traditional media, UFMG has different ways to communicate internally and externally. For example, through its website, it is possible to access various kinds of information, such as services, research, and innovation, academic, university schedule, study at UFMG, news, inclusion, budget, human rights, public tenders, scholarships, opportunities, entrepreneurship, exchange programs, students' subjects, human resources, sports and leisure, health, among others.

At the same time, the user may also access the social networks: Twitter, Facebook, Instagram, Medium, YouTube, Linked In, and Flickr.

The growth of UFMG's insertion in social networks also contributed to the Institution's increased visibility. "Currently, CEDECOM manages 13 social networks. With 122 thousand 'fans, 'for example, the UFMG page on Facebook is one of the most accessed among the pages of Brazilian higher education institutions" (UFMG, 2018b, p. 220).

## 5.3.2 International Relations Office (Diretoria de Relações Internacionais – DRI)

The International Relations Office presents itself as an articulating sector of international academic-scientific relations to select, implement and monitor inter-university projects and conventions. Its mission is to insert UFMG in the international scenario, strengthen interaction with institutions from abroad, and ensure the cosmopolitanism of academic activities. As a specific space to address and intermediate UFMG's relations with universities abroad, DRI has been joining strategic efforts to induce internationalization, working on creating programs and projects that enable international cooperation in the various segments of UFMG (UFMG, 2019a).

Currently, students and professors from UFMG have participated in academic programs, international conventions, and international exchange programs, which integrate the institution within a critical academic-scientific cooperation consortium with countries from Asia, Africa, Latin America, North America, Australia, and Europe aiming to develop collaboration in the areas of new technologies, teaching, research, and extension. In addition, the sector annually receives hundreds of students and a large number of missions from foreign universities, among other activities (UFMG, 2019a).

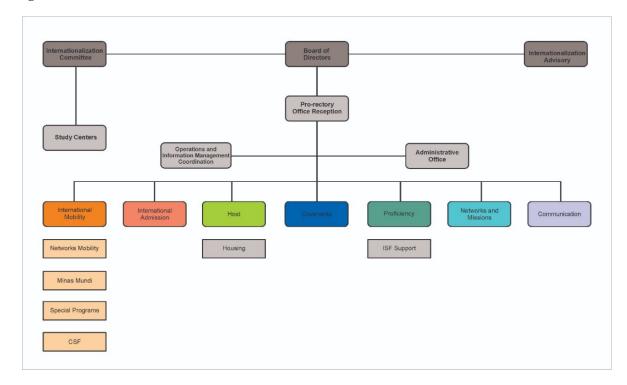


Figure 3 - Institutional – DRI

Source: Adapted from (UFMG, [202-a]).

Figure 3 details the International Relations Office - DRI structure, composed of 14 departments with a staff of 37.

Among many DRI activities, the following are of particular importance for this study (UFMG, [202-a]):

- a) Building quality partnerships with foreign institutions
- b) Selection, implementation, and monitoring of international interuniversity agreements, conventions, and programs
- c) Management of academic exchange programs from UFMG to abroad and vice-versa
- d) Dissemination of international academic opportunities to the UFMG internal and external community
- e) Promoting missions in foreign higher education and research institutions
- f) Reception of missions from foreign organizations.

# 5.3.3 Pro-rectory of Graduate Studies (Pró-reitoria de Pós-graduação – PRPG)

PRPG is responsible for managing all the graduate programs of UFMG (Master's and Graduate Program). The PRPG is composed of eleven departments: Academic Advising (Assessoria Acadêmica), International Affairs Advising (Assessoria de Assuntos Internacionais), Scholarships (Bolsas), Purchasing (Compras), Diplomas Dispatch (Expedição de Diplomas), Personnel (Pessoal), Financial (Financeiro), Pro-rectory office (Gabinete),

Administrative Office (Secretaria Administrativa), Informatics (Informática) and Dining Room (Copa).

The International Affairs Advisory (Assessoria de Assuntos Internacionais) is the one in charge of the international graduate students with the following assignments:

- a) It promotes actions that contribute to the internationalization of UFMG graduate programs
- b) Advises graduate board programs on giving support to their foreign students
- c) Advises foreign students about the academic procedures required for university enrollment and stay
- d) Manages procedures for international public tenders (UFMG, [202-c]).

The graduate programs of UFMG are recognized by a diversity of fields of knowledge, besides successively reaching higher levels of quality in the evaluation of the Coordination for the Improvement of Higher Education Personnel (Capes), which is among the best in Brazil (UFMG, [202-c]).

High-quality graduate programs are

- a) sure indicators of the maturity of a University Institution,
- b) highlighting the investment in research and staff training,
- c) indispensable requirements for the consolidation of any of the areas of knowledge.
- d) They also allow the expansion of research groups with high added value and the indispensable articulation with undergraduate education.

Characterized by a broadly equitable distribution of its merits and increasing national outreach, UFMG graduate programs have devices capable of ensuring a solid specialized education and, at the same time, mechanisms that facilitate a constant adaptation to the changes required by the advance of knowledge. Furthermore, diversity in program design, ranging from more traditional disciplinary programs to multidisciplinary programs, is underpinned by the values of academic excellence and social sensitivity, indicators of UFMG's commitment to public higher education in Brazil (UFMG, [202-c]).

#### 5.3.4 UFMG International Relations: Conventions, Agreements, Partnerships and Networks

DRI promotes actions intending that UFMG be active in academic-scientific cooperation initiatives with different continents; Asia, Africa, Latin America, North America, Oceania, and Europe, focusing on developing collaboration in teaching and research and extension (UFMG, 2019a).

The central purpose is to strengthen the development of quality partnerships with foreign institutions; promote the implementation and follow-up of international inter-university agreements, conventions, and programs; optimize the management of international academic exchange programs UFMG/abroad and abroad/UFMG; promote the dissemination of international academic opportunities to the UFMG internal and external community; organize and supervise the organization of missions in foreign higher education and research institutions, as well as the reception of foreign missions at UFMG (UFMG, 2018a, p. 1).

There are some partnerships that exemplify in the internationalization context of what was described above, such as AUGM Scale Programs (Programas Escala AUGM), Brand (Marca), Brafitec and Brafagri, BRICS-NU, Santander Universities (Santander Universidades), Botín Foundation (Fundação Botín), Erasmus, Red Macro, Poncho, Franco-Brazilian Chairs Program at UFMG (Programa Cátedras Franco-Brasileiras na UFMG) (UFMG, 2019a).

The programs mentioned may cover only the undergraduate courses or the graduate courses, or even both; in some cases, they also attend to faculty, professors, and researchers in general. Regardless, they all have their specificities, and usually, international public tenders are launched throughout the year at different times.

It is also relevant to point out that some data that were analyzed, besides the experience and description of the DRI and PRPG, showed a natural dynamic movement of Conventions, Agreements, Partnerships, and Networks, that are signed up or finished after a while for different reasons. They may be political, specific circumstances of each institution involved, the budget limit for a certain period, rules of the public tender on each edition, for example.

#### 5.3.5 International Graduate Student at UFMG

The first contact of a candidate who intends to study at UFMG may happen through an academic classmate or a Professor who knows someone from the field of study at UFMG, or the candidate can check all the information he/she needs to know in order to apply for the chosen graduate program at the university. In this case, the candidate checks the department/school or program website, the main field of study and its minor topics, the professors' researches, and publications, among other topics (not necessarily in this order). Afterward, the candidate would send an email introducing himself/herself and the research interest.

Another informal way of reaching someone from UFMG or any other university, which has become more common lately, is checking the social networks to see if there is a page or a Facebook group, for example, with someone, like an actual graduate student there or a faculty

member. This way could shorten up the path to contact a graduate program professor of the foreign candidate interest.

There are academic, social networks, such as Research Gate, Google Scholar, Academia EDU. Focused on professional matters is LinkedIn, and Facebook and Instagram are more personal. However, all of them may work as a source of information by students worldwide. The candidates try to investigate more about the university, research groups, students, publications, and especially graduate programs of his/her interest.

There are two paths to study at UFMG as an international graduate student.

- a) Regular student he/she takes the whole degree, from its beginning to its end, at UFMG, either as a master's or graduate student.
- b) Temporary student he/she would only take part in his/her studies for a short period at UFMG. However, being initially connected to a university from abroad. As soon as this period ends, the student goes back to the initial university to finalize the studies.

Both paths are described below.

In both cases mentioned above, there is a previous contact of the future graduate candidate with a professor (who may become an adviser in the future), department/school, graduate program, or a research group. Usually, there is a network in a field of study that connects researchers all over the world. Therefore, before any of the steps that will be explained next, it is primarily a standard educational procedure that the future foreign graduate student contacts someone from UFMG, according to his/her interest in the study. The main goal usually is to find a professor interested in advising the future international graduate student in his/her research.

#### 5.3.5.1 Regular International Graduate Student

In this case, the candidate will apply for the graduate program intending to take either the master's or graduate course, from the beginning to its end. There are different options for this candidate to apply for the graduate program. In some cases, public tenders would support the student financially through a scholarship, but he/she would have to be already approved by the graduate program. This section shows the options to become a Regular International Graduate Student.

Graduate Students-Convention Program (Programa de Estudantes-Convênio de Pós-Graduação - PEC-PG) According to the Ministry of Foreign Affairs (BRASIL, 2019), the Graduate Student-Convention Program - PEC-PG was created officially in 1981, aiming to enable citizens from developing countries to undertake graduate studies in Brazil, thus contributing to the formation of human resources, along with the standards of the PEC-G<sup>6</sup>. Furthermore, the program offers scholarships for candidates of developing countries with which Brazil has a cultural and educational cooperation agreement for taking a graduate course (master's or doctorate) in Higher Education Institutions (HEIs).

There are currently 60 countries involved in the PEC-PG. 26 from Africa, 25 from the Americas, and nine from Asia. Since the 2000s, there have been over 3,000 graduate students selected. About 68% of the applications come from countries in the Americas, especially Colombia and Peru (Ministry of Foreign Affairs, 2019). The countries that are included in the PEC-PG are listed following.

Frame 5 - Countries with which Brazil has an Agreement or Memorandum of Understanding on Educational, Cultural, or Science and Technology Cooperation

Africa, Asia and Oceania

Latin America and the Caribbean

The Undergraduate Student-Convention Program (PEC-G) offers higher education opportunities to citizens of developing countries with whom Brazil has educational and cultural agreements. It was developed by the Ministries of Foreign Affairs and Education, in partnership with public (federal and state) and private universities. PEC-G selects foreigners, between 18 and preferably up to 23 years old, with the high school period accomplished, to undertake undergraduate studies in the country (MEC, 2019).

South Africa Antigua and Barbuda

Angola Argentina Algeria Barbados Bolivia Benin Botswana Chile Cape Verde Colombia Cameroon Costa Rica China Cuba Costa do Marfim El Salvador

Egypt Ecuador Gabon Guatemala Guiana Ghana Guinea Bissau Haiti India Honduras Iran Jamaica Lebanon Mexico Mali Nicaragua Morocco Panama Mozambique Paraguay Namibia Peru

Nigeria Dominican Republic

Pakistan Suriname

Kenya Trinidad and Tobago

Democratic Republic of the Congo Uruguay
Congo Republic Venezuela

Sao Tome and Principe

Senegal Syria Thailand Tanzania East Timor Turkey

Source: CAPES (2017, p. 5).

Even if the candidate is from one of the countries above, he/she also needs to go through other steps, depending on his/her primary interest in applying for a master's or a graduate course. The main objectives of PEC-PG are:

- 1. Establish educational cooperation activity with developing countries with which Brazil has an Educational, Cultural, or Science and Technology Cooperation agreement.
- 2. Contribute to the formation of human resources through the granting of Master's scholarships (scholarships granted only by CNPq) and Ph.D. (scholarships granted only by CAPES).
- 3. Carry out studies in Brazilian HEIs that issue diplomas of national validity, in programs of master's and doctorate with a curriculum equal to or higher than 03 (three), according to the classification set up by CAPES.

- 4. Improve the qualification of university professors, researchers, professionals, and graduates of higher education, focusing on their contribution to the development of their countries.
- 5. Prioritize countries that submit candidates under national socio-economic development programs agreed between Brazil and the countries concerned through diplomatic channels (CNPQ<sup>7</sup>, 2019).

A Brazilian graduate program must have approved an applicant to PEC-PG. Therefore, the candidate should investigate the areas that fit his/her research interest and, if the application is approved, request a letter of acceptance from the graduate program to be submitted as part of the PEC-PG application process.

# **Standard Graduate Program Application Process**

Foreign applicants to graduate programs must follow the same application process as Brazilian applicants.

There are nine primary areas of the graduate programs offered by the schools/departments of UFMG:

- a) Agrarian Sciences (Ciências Agrárias);
- b) Biological Sciences (Ciências Biológias);
- c) Health Care (Ciências da Saúde);
- d) Exact and Earth Sciences (Ciências Exatas e da Terra);
- e) Humanities (Ciências Humanas);
- f) Applied Social Sciences (Ciências Sociais Aplicadas);
- g) Engineering (Engenahrias), Interdisciplinary (Interdisciplinar);
- h) Linguistics, Letters and Art (Linguistica, Letras e Arte).
- i) Each one of these areas may have different programs, 151 master's programs and 124 Ph.D. programs offered (UFMG, [202-b]).

The foreign applicant interested in applying for any of the graduate programs above must be aware that there is a specific public tender for each of them and offers different amounts of vacancies at different times throughout the year. The shortest and easiest way is to contact a professor with the same research interest, as a possible future adviser, before applying for the master's or graduate course. Even though this is not mandatory, it is the most common way of building up a research network with people from academia.

Most application processes go through a digital platform, the graduate program website as the first one, with all the information necessary for any applicant, either Brazilian or a foreign

National Council for Scientific and Technological Development was created in 1951. Its objective is to promote scientific research and development in the country. The CNPq is a public foundation, or, in other words, a private body created by a legislative act to carry out public functions. Although it has the autonomy to manage its activities, most of its resources come from the Union's coffers. Therefore, ultimately, the CNPq is linked to Public Power.

candidate. So, he/she can use the website to be aware of all the process steps of the application, evaluation, approval, and scholarships, in addition to the requirements and the documents necessary to apply for the master's Ph.D. course.

Afterward, the details about the class schedule may also vary, considering that Brazilian university classes are organized in two semesters; from March to July and from August to December.

Some procedures are common to all international students, such as having a CPF<sup>8</sup> and a Brazilian visa, for example. However, the scholarship availability will also depend on the quality level indicators of the graduate program, based on Capes measurement, besides political, financial, and other variables that may affect the present context of the student approval.

# 5.3.5.2 <u>Temporary International Graduate Student</u>

In this case, the master's or the international graduate student is already connected to a university abroad as a regular student. However, his/her intention is to take part in the master's or doctorate at UFMG. This section shows these possibilities.

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The CPF is the Individual Taxpayer Registry. It is a document made by the Federal Revenue and serves to identify taxpayers. The CPF is a number with 11 digits, which only change by court decision. When a person makes the CPF, he7she receives the numbers that will be his/hers for life. Moreover, they are different for each person. The primary function is to identify taxpayers in the Income Tax. In addition, it is necessary to apply for a Public Contest, enroll in a university, open a bank account, shop, or apply for a credit card (CARLA, [202-]).

## International exchange Program and other options

After contacting a member from UFMG, depending on what is negotiated, the student may take a short time at UFMG studying or researching. Then, he/she would return to finish the master's or doctorate at the university of origin.

These agreements may be considered as a personal network connection. It could also be a short visit to a special event, meeting, or internship. In this case, this student's period at UFMG could vary according to both interests and budget options.

#### 5.3.5.3 Co-tutelle Graduate Program

The Co-tutelle graduate program is a modality that allows the graduate student to carry out his/her thesis under the responsibility of two advisers: one from a Brazilian university and the other from the student's university home country). Both are responsible for the graduate student, who must remain in both institutions for equivalent periods. The Co-tutelle graduate program has the same rules for the UFMG graduate student, who wants to be linked to a foreign university and the reverse too. When a graduate student connected to a foreign university is interested in coming to UFMG, some points of the governing regulation establish the activities to be developed, in each semester, both at UFMG and at the foreign institution, in addition to the minimum period, not less than 12 months, that the student must stay at each institution (DRI, 2019).

The graduate student mobility through a Co-tutelle agreement is a strategic institutional tool that aims to: expand the internationalization of UFMG's graduate programs; promote new international mobility initiatives in other areas; improve the quality of graduate student education; enable more significant interaction between international partners (UFMG, 2019a).

In order to formalize the agreement between the two universities, the proposal must be approved by the graduate student's board course, and Pro-rectory of Graduate studies, after hearing the UFMG's International Relations Office sector. Subsequently, it is formalized by signing a convention between UFMG and the university abroad, specific to each doctoral student.

After taking part of the studies at the university abroad, one of the steps that the international students go through is to defend the thesis in Brazil or at the university abroad. Consequently, the student is awarded a double diploma. A typical procedure that has been used lately, but not required, is that the final defense can be presented once at one of the universities, with part of the committee online (UFMG, 2019a).

#### PART II - THE EMPIRICAL RESEARCH

This section will present the Research Methodology, Results, Discussion and Design Recommendations, and the Final considerations.

#### 6 RESEARCH METHODOLOGY

This section details the characterization and delimitation of the research, the methodological path, the inputs, and resources used to develop this work, and the set of general procedures performed throughout this study.

Regarding the problem approach and consequent research question exposed, this research has a collection of qualitative and quantitative data focused on the consequences of the studies instead of the methods. At the same time, being pluralistic and focused on practical solutions. From the perspective of mixed methods, this study is based on the Social Science Theory, which proceeds from the Social Sciences, directing the nature of the questions developed and answered in research—in this context, presented as the Literature Review.

Besides that, it has a pragmatic world view as mentioned by Creswell and Clark (2013), who also clarified that the need to use mixed methods to collect data in research is justified because one data source would not be enough. So, the results need to be explained, the exploratory findings need to be generalized, and a second data collection method is necessary to improve the primary method. In addition, a theoretical basis can be better addressed with multiple phases or projects.

Concerning the objectives of the study, this is exploratory research. It is described as exploratory, which, according to Gil (2016), focuses on having an overview of a particular context or fact and the formulation of more specific problems through the development, clarification, and modification of ideas and concepts.

Finally, regarding the methods and technical procedures performed, this study is a case study. Nonetheless, this research aims to identify, analyze, and present design recommendations based on a natural context, which may be applied in the future by UFMG through the sectors that manage international graduate students. In which case, where theory and practice are associated, it is more appropriate to use as a Methodology the Design Science Research, presented in section 6.2.

# 6.1 Methodology Description

This section presents the general description of the research methodology, explaining the methodological steps taken to achieve the specific objectives of the research. We organized these steps as presented in the scheme of Figure 4. The research was divided into four phases, namely, 1° UFMG, 2° UMD, as exploratory phase and 3° UFMG – Data Investigation, and 4° Design Recommendations, as the empirical phase.

The four phases aimed to understand and map the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG to contribute to the institution's education internationalization process. The exploratory phase is intended to provide more excellent expertise of the researcher with the knowledge involved in the research and developing the information flow modeling involved in the application process and enrollment at a UFMG international graduate program. The empirical phase consisted of the representation of the knowledge acquired in the previous phase through mapping the informal support networks for International Graduate Students at UFMG; diagnosing the necessities over the suggestion of one or more solutions to attract new international candidates for graduate studies, through proposals to the official information sources of UFMG; and at last, recommending improvements in the official information sources of UFMG that can enhance the experience of International Graduate Students.

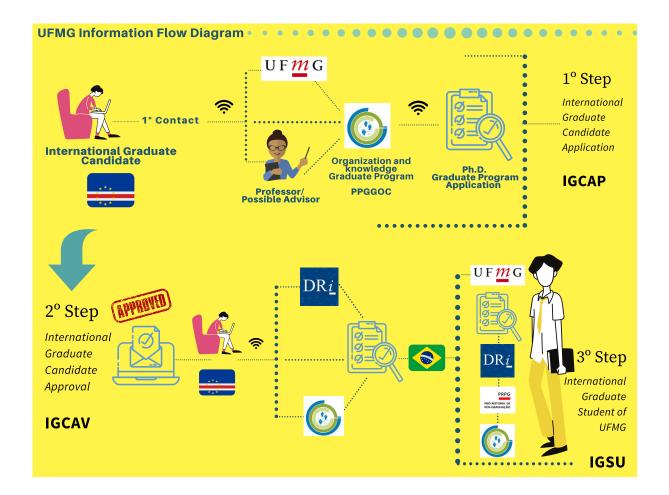
**UFMG THESIS UFMG-DATA INVESTIGATION** INFORMATION EMPIRICAL PHASE/DSR **FLOW** SUGGESTION 2 **MASTERS' DATA** TURE REVIEW LIT REVIEW **...** 1. 4. 4 RESEARCHER PEC-PG SEMI-STRUCTURED SURVEY OTHER PROG INTERVIEWS SEMI-**STRUCTURED INTERVIEWS** UMD INFORMATION **FLOW UFMG INFORMATION FLOW** MG ICTS IMPROVEMENTS UFMG INTERNATIONAL **GRADUATE STUDENT** 

Figure 4 - Thesis Information Flow

### 6.1.1 UFMG

For the first step of the Exploratory phase/DSR- Awareness of Problem 1, the researcher was in Brazil and used the UFMG identification through the Capes database for the literature review. This step was to study the domain of knowledge covered by the international students' information needs worldwide, in Brazil and at the UFMG, applied in the Information Science context. Hence, to acquire knowledge, the researcher employed direct methods, for instance, literature review, data analysis from the master's, pre-test interviews with PEC-PG international graduate students, and observations. As a result of this step, the UFMG Information Flow was created – Figure 5, which describes the paces taken by an international graduate candidate since his/her application up to approval and Current stage, and to all the institutions, sectors, and contacts involved in the processes. Thus, the candidate would go through three stages, 1) Prearrival, 2) Settlement stage and 3) Current stage.

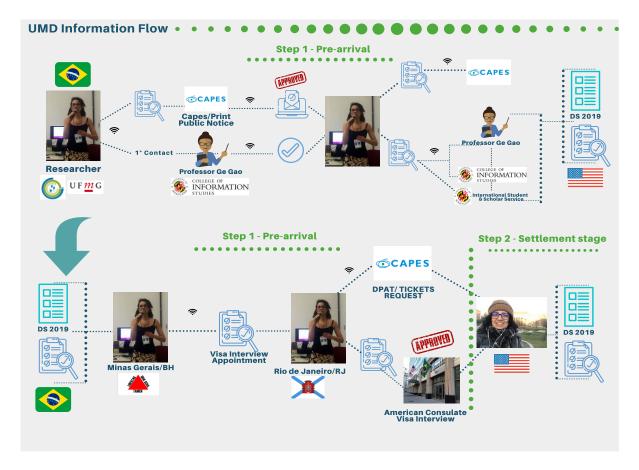
**Figure 5 - UFMG Information Flow** 



# 6.1.2 University of Maryland (UMD)

The second step of the Exploratory phase/DSR- Awareness of Problem 1, happened during the researcher's staying in the USA through a Sandwich Doctorate Program at the University of Maryland (UMD). On this step, the UFMG data was considered, and another literature review was performed, at this time through a UMD identification, accessing the university library repository and the database connected to it. Although the researcher was at the university as a visiting scholar, she lived an experience as an international graduate student living abroad. Thus, the UMD Information Flow was developed, as shown in Figure 6 and its sequence, Figure 7. They represent the researcher's stages as an international graduate student when studying at the UMD in the USA. The three stages are remarked, as 1) Pre-arrival, 2) Settlement stage, and 3) Current stage, and all the processes involved in each phase, along with the institutions as the UMD sectors.

Figure 6 - UMD Information Flow - Part A



Step 2 - Settlement stage

International Student. Student

Figure 7 - UMD Information Flow - Part B

# 6.1.3 Data Investigation

The first step of the Empirical phase/DSR- Suggestion 2 was the semi-structured interviews with the international graduate students from other programs, whose scholarships do not come from PEC-PG, but in different ways, as clarified beforehand, in section 6.2.1.1. Then, after all the data collected was analyzed, we used the knowledge acquired in the previous step. So, the survey was created, which we described in subsection 6.2.2.

# 6.1.4 UFMG Information and Communication Technologies Improvements Recommendations

The second step of the Empirical phase/DSR- Suggestion 2 - and the last of this study refers to the UFMG study case, along with design recommendations directed to the university's official information sources, such as the UFMG website, Graduate Programs websites, Instagram, Facebook, Twitter, YouTube, Linked-in, Flickr and the other information sources

that were mapped throughout the research, like e-mail, telephone, skype, WhatsApp, and in person.

# 6.2 Design Science Research (DSR)

The research proposes to relate a theoretical background in a real-life context through the general objective of understanding and mapping the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG to contribute to the institution's education internationalization process. After bibliographical research about methodologies, the Design Science Research (DSR) was selected to relate a real-life research problem in a theoretical context. As Dresch, Lacerda and Antunes Júnior (2015) clarify:

Design science is the epistemological basis when it is about the study of what is artificial. The design science research, in turn, is the background method that conducts the research when the goal to be reached is an artifact or a prescription. As a problem-oriented research method, design science research seeks, from the understanding of the problem, to construct and evaluate artifacts that allow transforming situations, changing their conditions to better or desirable states. It is used in different researches to reduce the gap between theory and practice (DRESCH; LACERDA; ANTUNES JÚNIOR, 2015, p. 67).

In the picture bellow, Vaishnavi and Kuechler (2014), elucidate all the steps of the DSR:

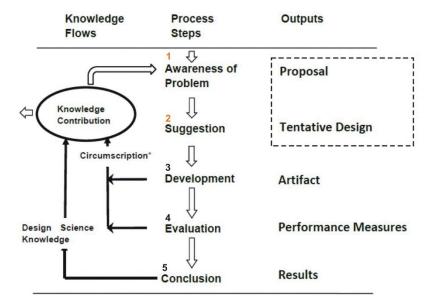


Figure 8 - Design Science Research Process Model (DSR Cycle)

Source: Adapted from Vaishnavi and Kuechler (2014).

This research went through step 1 and reached step 2 as the final one. The steps are localized on the Process steps column. They are: 1- Awareness of Problem and 2- Suggestion. On the next topic, these steps will be detailed. The Awareness of Problem 1 arises along the Exploratory Phase – UFMG – UMD. The Suggestion 2 occurs during the Empirical Phase – Data Investigation and UFMG Information and Communication Technologies Improvements Recommendations.

# 6.2.1 Methodological Procedures

This study used two methods of data collection. It is mixed-method research. First, at UFMG, there was a qualitative data collection instrument called PEC-G semi-structured interviews, followed by a data analysis, which combined with the literature interview and resulted in a survey, a quantitative data collection instrument.

At first, as described in Figure 9, semi-structured interviews with PEC-PG students were used as a pretest. Then, these data were analyzed using the methodological procedures of Content Analysis, which will be further detailed in the Data Analysis section. After this analysis, a survey was developed and sent by e-mail to UFMG Graduate Programs, disseminated through Facebook groups and the researcher networking contacts. This methodological approach is defined as an exploratory project, described in the following figure.

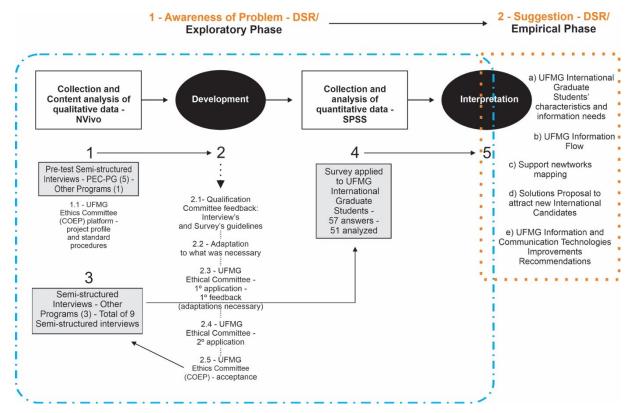


Figure 9 - UFMG International Graduate Students - Data Collection - Exploratory Sequential Project and DSR<sup>9</sup>

Source: Adapted from Creswell and Clark (2021).

Considering the use of Design Science Research presented in the figure above, the association of mixed data collection procedures is emphasized, according to the Exploratory Sequential Project, presented by Creswell and Clark (2013). Thus, Figure 10 above shows the interaction of the DSR and the Exploratory Sequential Project, considering theory and practice, in the presented studies.

#### 6.2.1.1 Data Collection

The data collection happened through two procedures, Semi-structured Interviews, and a Survey. The semi-structured interviews were with PEC-PG International Graduate Students and International Graduate Students with different scholarships, called Other Programs.

The first data collection worked as a pre-test with five PEC-PG - Semi-structured interviews (CNPQ, 2019), followed by one Other Program – Semi-structured interview. Then, the results were analyzed, and the Survey (2020) was elaborated. The next step was to go

For better comprehension, the levels of the Exploratory Sequential Project will be called stages and of the DSR steps.

through UFMG COEP. The study followed by all the required documents were sent through Plataforma Brasil, a website that intermediates the contact with UFMG Research Ethics Committee (Comitê de Ética de Pesquisa – COEP). COEP approved the data collection in December of 2020.

Afterward, the Survey link was disseminated on non-official UFMG Facebook groups, while e-mails were sent to all UFMG Graduate Programs and the researcher's networking contacts, using Facebook messenger, e-mails, and WhatsApp. While the Survey link was opened to receive responses, the three Other Programs - Semi-structured interviews were done. In total, nine international Graduate Students were interviewed.

The Survey was opened to receive responses from 04/02/21 to 30/04/21. In the end, 57 Survey responses were collected and 51 were analyzed.

# 6.2.1.1.1 Semi-structured Interviews – Stages 1 and 3

This section will present two groups interviewed, PEC-PG - Semi-structured Interviews (five interviewees) on stage 1 and Other Programs - Semi-structured Interviews (four interviewees) on stage 3. A total of nine international graduate students were interviewed.

Since the personal data of UFMG students are considered sensitive and cannot be shared and disclosed under the institution's internal rules, faced with this limited access to international students, the researcher activated her network and got in contact directly with the students she knew, also asking for recommendations from other students.

## PEC-PG – Semi-structured Interviews (Pre-test)

The first group interviewed was the PEC-PG – Semi-structured Interviews, as a pretest data collection, corresponding to stage 1 on Figure 9. Five international students were interviewed in this group.

As an instrument for primary data collection, interviews were conducted with five individuals in person, all of them had already been PEC-PG graduate students or still are. At the beginning of each interview, the interviewee read the Informed Consent Form, dated, and signed it. The interviews lasted an average of 60 minutes. They were recorded and later transcribed for analysis. The transcriptions were sent to the interviewees to be checked and changed, if necessary. After their approval, they sent the transcriptions back to the researcher by email.

It is noteworthy that the selection of individuals to be part of the corpus of interviews sought to respect the diversity of gender, origin, country, mother tongue, and graduate

hierarchical field level. The interview's script is attached to this document in Appendix C. It was elaborated in Portuguese, based on the theoretical framework and the purposes of the study.

Martins and Theóphilo (2016) define an interview as a research technique for collecting information, qualitative data, and evidence whose primary objective is to understand and comprehend the meaning that interviewees attribute to questions and situations, in contexts that were not previously structured, based on the researcher's assumptions and conjectures.

The semi-structured interview is conducted using a script but with the flexibility to add new questions, depending on how it flows. For Markoni and Lakatos (2017), the interview is more appropriate when there is a need to understand better the problem presented.

## Other Programs – Semi-structured Interviews

The last group, corresponding to stage 3, included the Other Programs – Semi-structured Interviews, with students accepted at UFMG according to different Graduate Programs application processes and scholarships, mostly connected directly to their graduate programs. Four international students were interviewed in this group, and all of them were Alumni students.

One interview happened in person in 2019, but the other three interviews were done during the COVID-19 pandemic in 2021, and due to health restrictions, they happened through Google Meet, a digital platform for online meetings. Before the interview, the Informed Consent Form was emailed to the interviewees, dated, signed individually, and sent back to the researcher. The interviews lasted an average of 60 minutes. They were recorded and later transcribed for analysis. Finally, the transcriptions were sent to the interviewees to be checked and changed, if necessary. After their approval, they sent the transcriptions back to the researcher by email.

# 6.2.1.1.2 Survey - Stage 4

As Marconi and Lakatos (2017) explained, a survey is a quantitative data collection instrument consisting of an ordered series of questions, which must be answered in writing and without the presence of the interviewer.

The survey was elaborated on Google Forms and based on the articles of Oh and Butler (2016, 2019). However, the questions were adapted considering the theoretical basis of this research, the context of Belo Horizonte/UFMG, and the PEC-PG pre-test – semi-structured interviews.

The first survey sample was sent to two interviewees to give feedback and track the time of responding to it. After their feedback, the changes suggested were made, and a final version was released.

The survey link was disseminated in two moments. In February of 2021, the first one was when the researcher sent an email with the link survey to all the UFMG Graduate Programs that covered the Master's and Doctorate courses. Meanwhile, the researcher spread out the link using Facebook Messenger, email, and WhatsApp, sending it to her contacts. Then, an introductory explanation introduced the online questionnaire about the nature of the research, its importance, and the need for answers to raise the students' interest in answering it within the expected time. The duration of responding to the survey was of approximately 20 minutes.

The second moment the survey link was emailed to the Graduate Programs was in March of 2021. The same strategy described above was repeated. The Survey was opened to receive responses from 04/02/21 to 30/04/21. In the end, 57 Survey responses were collected and 51 were analyzed.

#### 6.2.2 Data Analysis

This section will present the data analysis of the semi-structured interviews and the survey.

## 6.2.2.1 Semi-structured Interviews – Content Analysis and NVivo

The procedure used to analyze the answers of the interviews was the Content Analysis, which Bardin (2011) defines as:

It is a set of communications analysis techniques. It is not an instrument but a range of implements. Alternatively, more accurately, it will be a single instrument but marked by a wide disparity of shapes and adaptable to a vast field of application: communications (BARDIN, 2011, p. 37).

The questions were analyzed manually, and the categories defined as themes were identified. Afterward, each category was represented by a code created in the software NVivo.

After carefully reading the transcript of the interviews individually, the answers were correlated to each category/code defined in the previous procedure. The same answer could be connected to more than one code in many cases.

According to Bardin (2011), categorization is classifying constituent elements of a set by differentiation and gender regrouping (analogy) with previously defined criteria. The categories are rubrics or classes, which bring together a group of elements, in this case, record units, under a generic title. Then, they are gathered due to the common characteristics of these elements. The categorization criterion used in this paper was semantic (theme similarity). They are justified in the speed and effectiveness of applying to direct and simple speeches. These steps were done, and a table was generated by carefully classifying it into the initial and intermediate category - level 1. This table is in Appendix G Nonetheless, and it summarizes the evolution of the categorization of questions and answers through thematic analysis:

Then, the categories/codes of NVivo were transcribed. The previously generated board served as the basis for the "coding" of each answer to the corresponding question. Finally, the reading of the answers was carefully repeated and connected to new categories/codes or disconnected, if necessary.

The analysis was made in Portuguese in the same language as the interviews. After this phase, there was a connection between phases 1 and 2, according to Figure 9. When analyzing the pretest interviews of the PEC-PG students, the quantitative data collection molds were defined, focusing on the research questions, through the elaboration of a survey. The results generated from the analysis of each interview and among themselves can be seen in the following section.

## 6.2.2.2 Survey – SPSS

Fifty-one survey responses were analyzed using the SPSS software. In section 7.2, the results are exposed.

#### 7 RESULTS AND DISCUSSION

This section is subdivided into two subsections, Semi-structured interviews, and Survey. In each subsection, the results are presented along with their analysis. Nonetheless, the theoretical basis used in this research is reframed to interpret the most relevant outputs found.

In the subsection of Semi-structured interviews, the profile of the nine interviewees is presented, followed by the categories and subcategories of the NVivo data analysis.

Secondly, the subsection Survey is exposed with graphs and tables generated through SPSS.

# 7.1 Semi-structured interviews - PEC-PG and Other Programs

According to NVivo analysis, the size of the categories/codes is given by the number of times the theme is coded. Then the charts show the most frequent topics in each interview. The size of the categories is identified by the number of times the theme was coded. Then the charts show the most frequent topics in each interview.

There were nine interviews in total. At first, five interviews are presented as PEC-PG and the other four as Other Programs. Afterward, the demographic data will be presented according to each group.

The analysis used the same criteria for both groups; although the categories were differentiated, the interviews were coded considering each scenario. First, each interviewee was identified with the letter "E" (as the initial letter of the word "Entrevistado," which is the translation for interviewee in Portuguese). Then, the capital letter "E" is followed by a sequential number, respecting the order of the interviews. The description of the nine interviewees can be seen in Table 1.

The first interviewee was "E1", whose course financing type was PEC-PG. E1 is male, was forty years old in 2019 from Cape Verde, and has creole as the first language. He was a Ph.D. in Knowledge Management and Organization at that time, Social Sciences – Capes field, and held a Capes scholarship.

The second interviewee was "E2", also a PEC-PG student. E2 is female, was thirty-five years old in 2019 from Cuba, and has Spanish as the first language. She was a master's student in Information Science, Social Sciences – Capes field, and had a CNPQ scholarship.

The third interviewee was "E3", whose PEC-PG financed course. E3 is female, was twenty-eight years old in 2019 from Cape Verde, and has creole as the first language. She was a Ph.D. in Public Health, Medical, and Health Sciences – Capes field and had a CNPQ

scholarship. E3 was an undergraduate and PEC-G student previously. She lived and studied in São Paulo, and it was her first experience as an international student in Brazil.

The fourth interviewee was "E4", whose PEC-PG financed course. E4 is male, was thirty-six years old in 2019, and has French as the first language. He was Ph.D. in Public Health, Medical, and Health Sciences — Capes field and had a Capes scholarship. E4 was an undergraduate and PEC-G student beforehand. He lived and studied in Belo Horizonte, and it was his first experience as an international student in Brazil.

The fifth interviewee was "E5", which had the course financed by PEC-PG. E5 is male, was thirty-three years old in 2019 from Cuba, and has Spanish as the first language. He was a master's student in Communication, Social Sciences – Capes field, and had a CNPQ scholarship.

The sixth interviewee was "E6", whose course was financed by a development agency through the Graduate Program. E6 is male, was thirty-two years old in 2019 from Italy, and has Italian as the first language. He was a Ph.D. in Structure Engineering, Engineering, and Technology – Capes field and had a Capes and a CNPQ scholarship.

The seventh interviewee was "E7", whose course was financed by the Graduate Program and afterward by a development agency through the Graduate Program. E7 was thirty-five years old by the interview in 2021 from Cuba and had Spanish as the first language. He was a Ph.D. in Computer Science, Formal Sciences – Capes field, and had a Graduate Program scholarship and afterward a Capes scholarship.

The eighth interviewee was "E8", whose course was financed by Erasmus. E8 is male, was twenty-four years old by the interview in 2021 from Romania and has Romanian as the first language. He was a Master's student in Knowledge Management and Organization, Social Sciences – Capes field, and held a scholarship from Erasmus Program.

The ninth and last interviewee was "E9", whose course was financed by a development agency through the Graduate Program. E9 is male, was thirty-two years old by the interview in 2021 from Cape Verde and has creole as the first language. He was a Ph.D. student in Ecology, Conservation, and Wildlife Management, Natural Sciences – Capes field, and held a scholarship from Capes. E9 was an undergraduate and PEC-G student previously. He lived and studied in Ouro Preto, and it was his first experience as an international student in Brazil.

Frame 6 - Interviewees Demographic Data

Interviewee/ Entrevistado	Financing type	Course	Gender	Age	Nationality	Native language	Graduate Program	Capes main areas	Scholarship type	Number
1	PEC-PG	Ph.D.	Male	40	Cape verdean	Creole	Gestão e Organização do Conhecimento/ Knowledge Management and Organization	Ciências Sociais Aplicadas/ Social Sciences	Capes	1
2	PEC-PG	Master's	Female	35	Cuban	Spanish	Ciência da Informação/ Information Science	Ciências Sociais Aplicadas/ Social Sciences	CNPQ	1
3	PEC-PG	Ph.D.	Female	28	Cape Verdean	Creole	Saúde Pública/ Public Health	Ciências da Saúde/ Medical and Health Sciences	CNPQ	1
4	PEC-PG	Ph.D.	Male	36	Beninese	French	Saúde Pública/ Public Health	Ciências da Saúde/ Medical and Health Sciences	Capes	1
5	PEC-PG	Master's	Male	33	Cuban	Spanish	Comunicação/ Communication	Ciências Sociais Aplicadas/ Social Sciences	CNPQ	1
6	Other Program	Ph.D.	Male	32	Italian	Italian	Engenharia de Estruturas/ Structure Engineering	Engenharias/ Engineering and Technology	Capes and CNPQ	1
7	Other Program	Ph.D.	Male	35	Cuban	Spanish	Ciência da Computação/ Computer Science	Ciências Exatas e da Terra/ Formal Sciences	Graduate Program and Capes	1

Interviewee/ Entrevistado	Financing type	Course	Gender	Age	Nationality	Native language	Graduate Program	Capes main areas	Scholarship type	Number
8	Other Program	Masters	Male	24	Romanian	Romanian	Gestão e Organização do Conhecimento/ Knowledge Management and Organization	Ciências Sociais Aplicadas/ Social Sciences	Erasmus	1
9	Other Program	Ph.D.	Male	37	Cape Verdean	Creole	Ecologia, Conservação e Manejo da Vida Silvestre/ Ecology, Conservation, and Wildlife Management	Ciências Biológicas/ Natural Sciences	Capes	1

The data was analyzed in NVivo 12 MAC, which generated graphs and tables, presenting the demographic data of the nine International Students who were interviewed. First, the data will be exposed, emphasizing each group - PEC-PG and Other Program. Afterward, the data of the two groups will be compared in each section.

Frame 7 provides the results from the analysis that prioritized the Financing type, which can be over PEC-PG or by a development agency through the Graduate Program, called Other Program. This attribute was intercorrelated with the other five: Course, Gender, Age, Nationality, and Native language.

Among the five PEC-PG students, two attended the Master's and three to the Ph.D. One Master's student was a female (E2), and the other was male (E5). On the other hand, one Ph.D. student was a female (E3), and the other two were male (E1/E4).

The youngest student was twenty-eight years old – E3 - a Ph.D. student, female from Cape Verde. The oldest student was forty years old – E1 - a Ph.D. student, male, and from Cape Verde. The other three students were between 31 and 39 years old – 33 (E5), 35 (E2), and 36 (E4).

Only one student from the PEC-PG group was from Benin and had French as the native language (E4). Two Ph.D. students were from Cape Verde and had creole as the native language (E1/E3). The other two were from Cuba – one from the Master's (E2) and the other from the Ph.D. course (E5) – and both had Spanish as the native language.

The second group is called Other Program, and four students were interviewed. Three students took the Ph.D. course (E6/E7/E9) and only one the Master's (E8). All four students were males.

The youngest student was twenty-four years old -E8 - a Master's student from Romania. The oldest student was thirty-seven years old -E9 - a Ph.D. student from Cape Verde. The other two students were at the age of 32 (E6) and 35 (E7) at the interview.

The Master's student (E8) was from Romania and had Romanian as the native language. The other Ph.D. Students were from Cape Verde (E9 - Creole was his first language), Cuba (E7 - Spanish was his first language), and the last one from Italy (E6- Italian was his first language).

When the two groups were compared, totalizing nine interviewees, three students took the Master's and six the Ph.D. Among the Master's students, only one was a female (E2), twenty-five years old, and had Spanish as the native language. In the group of Ph.D. students, only one was a female (E3), twenty-eight years old from Cape Verde, and had Creole as the native language.

The youngest graduate student was E8 - a Master's student, Male, twenty-four years old from Romania, and Romanian was his first language. The oldest graduate student was E1 - a Ph.D. Male, forty years old from Cape Verde and Creole was his native language.

Frame 7 - Demographic Data: Financing type, Course, Gender, Age, Nationality and Native language

Interviewee	Financing type	Course	Gender	Age	Nationality	Native language	Number
E4	PEC-PG	Ph.D.	Male	36	Beninese	French	1
E3	PEC-PG	Ph.D.	Female	28	Cape Verdean	Creole	1
E2	PEC-PG	Master's	Female	35	Cuban	Spanish	1
E1	PEC-PG	Ph.D.	Male	40	Cape Verdean	Creole	1
E5	PEC-PG	Master's	Male	33	Cuban	Spanish	1
E9	Other Program	Ph.D.	Male	37	Cape Verdean	Creole	1
E7	Other Program	Ph.D.	Male	35	Cuban	Spanish	1
E6	Other Program	Ph.D.	Male	32	Italian	Italian	1
E8	Other Program	Master's	Male	24	Romanian	Romanian	1

Source: Research data (2021).

Frame 8 emphasized the attribute Financing type, which can be PEC-PG or Other Program. Moreover, this attribute was intercorrelated with the other three: Scholarship type, Course, and Graduate Program. The results obtained from the preliminary analysis are summarized in Frame 7.

Among the five PEC-PG students, two had a Capes scholarship (E4/E1), and three had a CNPQ scholarship (E3/E2/E5). In addition, there were two Master's students – E2 in Information Science and E5 in Communication. On the other hand, there were three Ph.D. students – two in Public Health (E4/E3) and one in Knowledge Management and Organization (E1).

In the second group - Other Program – each of the four students had specific types of scholarships. E9 had a Capes scholarship. E7 received a prevenient scholarship from the Graduate Program for a certain period and afterward a Capes scholarship. E6 received a Capes scholarship

and later a CNPQ scholarship, which means a higher value from the standard scholarship because there was an extra amount called "taxa de bancada" in Portuguese to pay extra research costs. These three students attended the Ph.D. E9 in Ecology, Conservation, and Wildlife Management. E7 in Computer Science and E6 in Structure Engineering. E8 was the only Master's student in this group, had a scholarship from Erasmus Program, and attended Knowledge Management and Organization Graduate Program.

Comparing the two groups' results reveals that five students received a Capes scholarship at some point, and all of them were Ph.D. students (E4/E1/E9/E7). On the other hand, four students received the CNPQ scholarship at some point (E3/E2/E5/E6) – all these eight students either from PEC-PG or Other Program received scholarships from the Brazilian government agencies. What stands out in the table is that E8 was the only student to receive a scholarship from Erasmus, an international program. Moreover, E8 was a Masters' student in Knowledge Management and Organization.

Frame 8 – Demographic Data: Financing Type, Scholarship Type, Course, Graduate Program

Interviewee	Financing type	Scholarship type	Course	Course Graduate Program	
E4	PEC-PG	Capes	Ph.D.	Ph.D. Saúde Pública/ Public Health	
E3	PEC-PG	CNPQ	Ph.D.	Saúde Pública/ Public Health	1
E2	PEC-PG	CNPQ	Master's	Ciência da Informação/ Information Science	
E1	PEC-PG	Capes	Ph.D.	Gestão e Organização do Conhecimento/ Knowledge Management and Organization	1
E5	PEC-PG	CNPQ	Master's	Comunicação/ Communication	1
E9	Other Program	Capes	Ph.D.	Ecologia Conservação e Manejo da Vida Silvestre/ Ecology, Conservation, and Wildlife Management	1
E7	Other Program	Graduate Program and Capes	Ph.D.	Ciência da Computação/ Computer Science	1

Interviewee	Financing type	Scholarship type	Course	Graduate Program	Number
E6	Other Program	Capes and CNPQ	Ph.D.	Engenharia de Estruturas/ Structure Engineering	1
E8	Other Program	Erasmus	Master's	Gestão e Organização do Conhecimento/ Knowledge Management and Organization	1

Frame 9 analyzes the attribute Financing type with the other three: Course, Graduate Program, and Capes main area. The following Table 4 compares the results of the correlational analysis of the attributes mentioned.

In the first group – PEC-PG among the five students, two attended the Master's – E2 in Information Science and the other – E5 in Communication - both identified as Social Sciences according to Capes main area. However, three students took the Ph.D. – E1 in Knowledge Management and Organization, associated with Social Sciences as a Capes main area. The other two – E3/E4 in Public Heath, which fits in Medical and Health Sciences as a Capes main area.

In the second group – Other Program, there are four students. Only one with took the Master's (E8) and the other three the Ph.D. (E9/E7/E6). E8 attended the Knowledge Management and Organization Graduate Program in the Social Sciences according to Capes's central area. E9 in Ecology, Conservation, and Wildlife, Natural Sciences area, as a Capes reference. E7 in Computer Science included in the Formal Sciences Capes main area. The last Ph.D. student is E6 in the central area of structure engineering - Engineering and Technology Capes.

Together the results of the two groups provide essential insights when compared. Four students of the Social Sciences Capes main area (E2/E1/E5/E8). Although they attended different Graduate Programs. E2 Master's in Information Science. E1 and E8 were both in the Knowledge Management and Organization Graduate Program, the first as a Ph.D. student and the second as a Master's student. E5 Master's in Communication.

According to Capes' central area, there are two Ph.D. students in Public Health (E3/E4) - Medical and Health Sciences. In addition, there are the other three Ph.D. students: E9 Ecology, Conservation, and Wildlife – Natural Sciences; E7 in Computer Science – Formal Sciences and at last E6 in Structure Engineering - Engineering and Technology.

Frame 9 - Demographic Data: Financing Type, Course, Graduate Program and Capes Main Area

Interviewee	Financing type	Course	Graduate Program	Capes main areas	Number
E3/E4	PEC-PG	Ph.D.	Saúde Pública/ Public Health	Ciências da Saúde/ Medical and Health Sciences	2
E2	PEC-PG	Master's	Ciência da Informação/ Information Science	Ciências Sociais Aplicadas/ Social Sciences	1
E1	PEC-PG	Ph.D.	Gestão e Organização do Conhecimento/ Knowledge Management and Organization	Ciências Sociais Aplicadas/ Social Sciences	1
E5	PEC-PG	Master's	Comunicação/ Communication	Ciências Sociais Aplicadas/ Social Sciences	1
E9	Other Program	Ph.D.	Ecologia Conservação e Manejo da Vida Silvestre/ Ecology, Conservation, and Wildlife	Ciências Biológicas/ Natural Sciences	1
E7	Other Program	Ph.D.	Ciência da Computação/ Computer Science	Ciências Exatas e da Terra/ Formal Sciences	1
E6	Other Program	Ph.D.	Engenharia de Estruturas/Structural Engineering	Engenharias/ Engineering and Technology	1
E8	Other Program	Master's	Gestão e Organização do Conhecimento/ Knowledge Management and Organization	Ciências Sociais Aplicadas/ Social Sciences	1

### 7.1.1 Categories – NVivo codes

The categories analyzed came from the questions in the semi-structured interview script carried out with international graduate students at UFMG. Subsequently, based on the responses obtained from the transcript of the interviews, we applied content Analysis and defined the categories.

After this definition, the categories were reproduced as codes in NVivo. Subsequently, we created the subcategories, explained in the next topic. The results of the analysis of the interviews reflect the understanding that students have about the topics covered.

We identified and sorted the categories alphabetically, starting with the letter A and ending with the letter K, totalizing eleven categories. Table 4 shows an overview of all the categories.

The categories follow a chronological order that refers to the application process of the future international student, described in the theoretical framework in three stages: Pre-arrival, settlement, and Current stage. In addition, the categories flow according to the financing of the studies of two groups of students: 1) PEC-PG – program promoted by the Brazilian government to finance the studies of Graduate students from underdeveloped countries and 2) Other Program – students whose studies are financed by other national and international funding agencies. All codes were used for the analysis of the two groups. Each text part was coded according to the category and subcategory, which it was identified.

From category A to C, they are related exclusively to PEC-PG Program. These categories and subcategories are oriented to break down all the international candidate's processes. Since his/her choice by the Graduate Program up to the approval. However, parallel to the PEC-PG process and Public Tender, the candidate also applies to the Graduate Program. After his approval on the Graduate Program, he/she needs a letter to send either to Capes or CNPQ to continue with the process of PEC-PG and go on with the visa procedures and scholarship benefit. These categories are:

A- PEC-PG refers to how the international candidate chooses PEC-PG, his/her first contact with the Public Tender, its comprehension, and questions. Besides that, how the scholarship may be a selection criterion for the candidate to choose where to apply for and through which Graduate Program. It is the first category with five subcategories, and five files are attached to this code. Each file corresponds to one PEC-PG interview. Thus, a total of forty-six references were connected to this code.

B- Seleção PEC-PG / PEC-PG Application process – this category approaches the Completion of the Curriculum Lattes (Brazilian database platform for academic resumés), the application process to PEC-PG through CNPQ or Capes, a complete description of the application process. It is the second category with three subcategories, and five files are attached to this code.

Each file corresponds to one PEC-PG interview. Hence, a total of ten references were connected to this code.

C- Aprovação PEC-PG / PbEC-PG Approval discusses whom the international candidate has contacted from UFMG after being approved. In addition to the student visa process and the description of PEC-PG approval experience. It is the third category with three subcategories, and four files are attached to this code. Each file corresponds to one PEC-PG interview. Therefore, a total of eleven references were connected to this code.

Category D to K refers to the Graduate Program application process, a standard step either for PEC-PG students or Other Programs' students. PEC-PG students would go for the program's application process parallel to the Graduate Program application process. On the other hand, Other Program students would only go through the Graduate Program application process. All the categories with nine attached files infer those five correspond to PEC-PG interviews and four to Other Programs interviews. Categories D and E refer to the Graduate Program application process for the two groups of students.

The fourth category is D- PEC-PG e Outros Programas – Pós-graduação / PEC-PG and Other Programs - Graduate Programs for this step, the international candidate chooses a Graduate Program that he/she will apply, followed by the first contact with the Graduate Program Public Tender, its comprehension, and contact for questions. In addition, some Graduate Programs will require the completion of the Lattes Curriculum (in Portuguese). In some cases, the candidate contacts the department or possible advisor, besides checking the possibility to have the scholarship to cover the personal expenses during the Master's or Ph.D.

This category has eight subcategories, and nine files are attached. Consequently, a total of seventy-five references were connected to this code.

The fifth category is E- PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs – Graduate Program Approval – it refers to PEC-PG approval students and Other Programs. After approval, the candidate goes through the student visa process for Brazil, becomes aware of the type of scholarship he/she will receive, and contacts UFMG through a specific sector. There is also a description of the graduate approval experience. This category has four subcategories, and nine files are attached. As a result, a total of forty-seven references were connected to this code.

The sixth category is F- Matrícula UFMG / UFMG Enrollment – it mentions the international student's steps to become an official UFMG student. It starts from the reception at UFMG, procedures for becoming a UFMG student, contact with DRI; depending on the case, it is necessary to take the Celpe-Bras test. Bureaucracy and documentation upon arrival, and visa periodical, renewal. This category has six subcategories, and nine files are attached. Consequently, a total of a hundred and thirteen references were connected to this code.

The seventh category is G- Belo Horizonte – interação / Belo Horizonte interaction – this process of interaction with the city has different moments, such as housing search, medical care, interaction since arrival, favorite places in BH, favorite activities in BH, similarities between Brazil or BH and culture of origin. For example, Minas Gerais typical food, interaction with Brazilians in general, adaptation to Brazilian culture, adaptation to Brazilian Portuguese, contact with other foreigners or compatriots, getting around on and off-campus. This category has twelve subcategories, and nine files are attached. Hence, a total of two hundred and forty-eight references are connected to this code.

The eighth category is H- UFMG – interação / UFMG -interaction – it refers to the interaction with UFMG's geographical area and community. So, there is the interaction with Brazilian students at UFMG, interaction with Brazilian professors, contact with classmates, UFMG employees, the department's employees, other PEC students, exploring UFMG campus, interaction with lab colleagues or research groups, and attending classes. This category has nine subcategories, and nine files are attached. Therefore, a total of eighty references are connected to this code.

The ninth category is I- Bolsas Capes-CNPQ / Capes-CNPQ Scholarships – it mentions the relationship of the international student with Capes or CNPQ while he/she receives the scholarship. In this case, some academic events also need to be reported to the agencies, the semi-annual report, additional information for Capes or CNPQ, communication with Capes or CNPQ, and the scholarship granting process, Graduate Program approval, and scholarship loss. This category has seven subcategories, and seven files are attached to this code. So, a total of thirty-eight references are connected to this code.

The tenth category is J- Fontes de informação / Information sources – this category mentions all the possible information sources that the international students used in the Pre-arrival, settlement, and Current stage, which are: telephone, e-mail, popular social networks, academic, social networks, messenger or WhatsApp, in-person, UFMG website, department website or

Graduate Program, a person as an information reference, Graduate Program reception/help desk, and geographic location platform.

The eleventh and last category is K- Opinião / Opinion – this category is about additional comments, the biggest challenge, personal experiences, and solution suggestions. It has four subcategories and nine attached files. As a result, a total of a hundred and four references are connected to this code.

The following section details each category and its subcategories. The most relevant parts of the five interviews will be exposed, and the interviewee indicated. The criteria to the selection are to answer the objectives of this research: General objective - understand and map the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG to contribute to the institution's education internationalization process. Moreover, specific objectives are: first - develop the information flow modeling involved in the application process and enrollment at a UFMG international graduate program. Second - map the informal support networks for International Graduate Students at UFMG. Third - diagnose the necessities by suggesting one or more solutions to attract new international candidates for graduate studies, throughout proposals to the official information sources of UFMG. 4th. Recommend improvements in the official information sources of UFMG that can enhance the experience of International Graduate Students.

**Table 4 - Categories/Codes** 

Categories	Files	References
A- PEC-PG	5	46
B- Seleção PEC-PG / PEC-PG Application process	5	10
C- Aprovação PEC-PG / PEC-PG Approval	4	11
D- PEC-PG e Outros Programas - Pós-graduação / PEC-PG and Other Programs - Graduate Programs	9	75
E- PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs – Graduate Program Approval	9	47
F- Matrícula UFMG / UFMG Enrollment	9	113
G- Belo Horizonte – interação / Belo Horizonte – interaction	9	248

Categories	Files	References
H- UFMG – interação / UFMG -interaction	9	80
I- Bolsas Capes-CNPQ / Capes-CNPQ Scholarships	7	38
J- Fontes de informação / Information sources	9	184
K- Opinião / Opinion	9	104

After the interviews, complete transcriptions were carried out, and excerpts that answered the guiding questions were extracted. Then, based on the scientific literature and the objectives proposed in the research, it was possible to evaluate each category as follows.

Subsequently to the detailed and individualized presentation of each category and subcategory, Table 16 – Appendix G will be shown with the disposition of all codes as it was used on NVivo.

#### 7.1.1.1 <u>Categories and Subcategories content</u>

This section presents each category followed by its subcategories, the most relevant interview excerpts, and the literature analysis, when necessary. On Appendix CCC – interviews excerpts it is possible to see more interview excerpts.

#### 7.1.1.1.1 Category A - PEC-PG

This category covers the first steps that the international candidate goes through when he/she hears about PEC-PG and analyzes the possibilities many times compared to other opportunities. Usually, the candidate is in the home country, which is the Pre-arrival stage. Therefore, it is the first category, and it has five subcategories, as Figure 10 shows. These subcategories are:

a) A.1 - Escolha pelo PEC-PG / PEC-PG Choice – it is a common step for the international candidate to look for options to apply for the Master's or Ph.D. In many cases, having a scholarship may be a requirement for this candidate to study abroad. PEC-PG students come from sub-developed countries which Brazil has an agreement.

- b) A.2 Primeiro contato Edital PEC-PG / First contact with Public Tender PEC-PG the candidate's first contact with the Public Tender may be through a friend, the Brazilian Consulate in his/her country, or even looking for opportunities on the internet.
- c) A.3 Compreensão do Edital PEC-PG / PEC-PG Public Tender comprehension the Public Tender comprehension depends a lot on the Portuguese level of the candidate.
- d) A.4 Contato-Dúvidas Edital PEC-PG / PEC-PG Public Tender Contact-questions Public Tenders usually have an e-mail for questions, but in some cases, the candidate may look for someone that has already been approved or even someone at the Consulate.
- e) A.5 Bolsa como pré-requisito para estudar PEC-PG / Scholarship as a prerequisite for studying PEC-PG the candidates that know about PEC-PG opportunities tend to apply for it because the Program offers scholarships. On the other hand, only the candidate from the countries Brazil has an agreement would apply.

A- PEC-PG A2-Primeiro A.3-Compreensão A.4-Contato-Dúvidas A.1-Escolha A.5-Bolsa como contato Edital do Edital PEC-PG Edital PEC-PG / pelo PEC-PG / pré-requisito para PEC-PG / First PEC-PG / PEC-PG Public PEC-PG Public estudar PEC-PG / contact with Tender Tender Choice Scholarship as a Public Tender comprehension Contact-questions prerequisite for PEC-PG studying PEC-PG

Figure 10 - Category A - PEC-PG

Below is Table 5. The A- PEC-PG category does not have any coding references coded directly to it. However, forty-six coding references were aggregated from the subcategories. There was no file attached directly to category A in the same case, but five files were aggregated from the subcategories.

Table 5 - Category A - PEC-PG

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
A- PEC-PG	0	46	0	5
A.1 - Escolha pelo PEC-PG / PEC-PG Choice	9	9	5	5
A.2 - Primeiro contato Edital PEC-PG / First contact with Public Tender PEC-PG	14	14	5	5
A.3 - Compreensão do Edital PEC-PG / PEC-PG Public Tender comprehension	16	16	5	5
A.4 - Contato-Dúvidas Edital PEC-PG / PEC-PG Public Tender Contact-questions	4	4	2	2
A.5 - Bolsa como pré-requisito para estudar PEC-PG / Scholarship as a prerequisite for studying PEC-PG	3	3	2	2

Here are relevant examples of interviews excerpts:

"Cape Verde is a country that is constantly developing. It did not have a public or private university. So, all students had to leave. The United States, Cuba, Germany, France, and Brazil, other countries had cooperation. So, these programs were essential for Cape Verde's youth. Then, we have always known the PEC-G and the PEC-PG, the Ministry of Education of Cape Verde broadcasts on the radio, social networks" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"This is from Brazil, but it has other programs with Portuguese participation, European Union, Cuba, Russian federation. All encourage free international education, but student fees are guaranteed. This cooperation already guarantees and is as if it were free. Networks can be private, but students do not pay. Who pays is the state, the state of Cape Verde, and the state that gives the scholarship" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

PEC-PG (Graduate Studies) was created in 1981, aiming to contribute to the education of students from developing countries, along with PEC-G (Undergraduate studies) students. A Brazilian Graduate Program must have approved a PEC-PG student in a research area that fits his/her interest and receive a letter of acceptance from the Graduate Program to submit it to the PEC-PG application process. De Wit (2017), a reference in studies about Education

Internationalization, mentioned PEC-G and PEC-PG as two proposals of the Brazilian government that stands out by the high number of international students financed to study in the country for free at public universities. Between 2003 and 2013, more than 6,000 students came over to study in Brazil, mainly from Africa - Cape Verde, Guinea-Bissau, and Angola.

#### 7.1.1.1.2 Category B - Seleção PEC-PG / PEC-PG Application process

This category includes all the steps that the PEC-PG candidate goes through when he/she decides to apply for it. It is also the Pre-arrival stage. It is the second category, and it has three subcategories, numbered from six to eight, as Figure 11 presents. These subcategories are:

- a) B.6 Preenchimento do Currículo Lattes PEC-PG / Completion of the Curriculum Lattes PEC-PG It is usually required to have the CV on the Lattes platform, which is a Brazilian website and only known nationally.
- b) B.7 Seleção via Capes ou CNPQ PEC-PG / PEC-PG Application process via Capes or CNPQ
   Through time, the process to apply for the Master's was directed to either Capes or CNPQ, and the same thing happened to the Ph.D. It has varied from one year to another.
- c) B.8- Descrição processo de seleção PEC-PG / PEC-PG Description of Application Process in some cases, the interviewee summarized the application process in one answer.

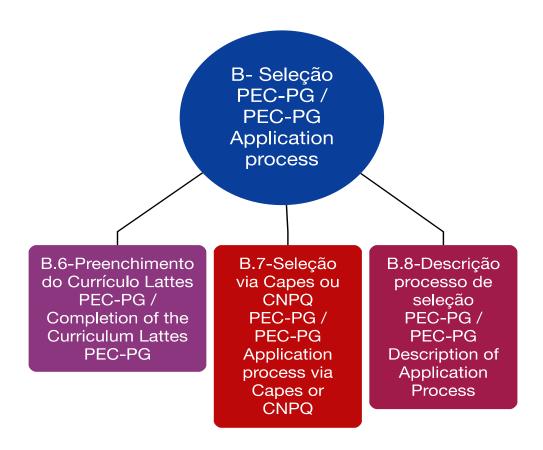


Figure 11 - Category B - Seleção PEC-PG / PEC-PG Application Process

Table 6 describes the results of the analysis. The B- Seleção PEC-PG / PEC-PG Application process category does not have any coding references coded directly to it. Although, ten coding references were aggregated from the subcategories. There was no file attached directly to category B in the same case, but five files were aggregated from the subcategories.

Table 6 - Category B - Seleção PEC-PG / PEC-PG Application process

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
B- Seleção PEC-PG / PEC-PG Application process	0	10	0	5
B.6 - Preenchimento do Currículo Lattes PEC-PG / Completion of the Curriculum Lattes PEC-PG	2	2	1	1
B.7 - Seleção via Capes ou CNPQ PEC-PG / PEC-PG Application process via Capes or CNPQ	3	3	2	2
B.8- Descrição processo de seleção PEC-PG / PEC-PG Description of Application Process	5	5	3	3

"I decided to look in other countries for options to do a master's or a doctorate, as some countries accept a doctorate without a master's degree. However, I found this call from Brazil this year, specifically 2014. PPG's partnership was with CNPQ, and it was with Capes in previous years. It was the call for a master's degree. Furthermore, I decided to give it a try. It was a well-explained selection process, steps, and sequences of actions to get the scholarship. It was a good option only for foreigners, it was a selection of 100 foreigners from all over the world to be accepted here, but then I tried and got it [...] Until 2013 the master's was always with Capes and the doctorate with CNPQ, but in 2014 they reversed the order" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

#### 7.1.1.1.3 Category C - Aprovação PEC-PG/PEC-PG Approval

This category refers to the processes included in the international candidate's PEG-PG approval experience. Therefore, it is still part of the Pre-arrival stage. It is the third category and has three subcategories, numbered from nine to eleven, as Figure 12 shows. These subcategories are:

- a) C.9 Contato com Setor da UFMG após aprovação PEC-PG / Contact with UFMG Sector after PEC-PG approval after the international candidate is approved, he might have contact with someone from UFMG, and this person represents a department.
- b) C.10 Processo do visto de estudante para o Brasil / Student visa process for Brazil the international candidate receives an acceptance letter from UFMG, part of the student visa process.
- c) C.11 Descrição da experiência de aprovação PEC-PG / Description of PEC-PG approval experience it is a sum-up of the PEC-PG approval.



Figure 12 - Category C - Aprovação PEC-PG / PEC-PG Approval

Table 7 presents the results analyzed. The C- Aprovação PEC-PG / PEC-PG Approval category does not have any coding references coded directly to it. However, eleven coding references were aggregated from the subcategories. There was no file attached directly to category C in the same case, but five files were aggregated from the subcategories.

Table 7 - Category C - Aprovação PEC-PG / PEC-PG Approval

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
C- Aprovação PEC-PG / PEC-PG Approval	0	11	0	4
C.9 - Contato com Setor da UFMG após aprovação PEC-PG / Contact with UFMG Sector after PEC-PG approval	1	1	1	1

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
C.10 - Processo do visto de estudante para o Brasil / Student visa process for Brazil	4	4	1	1
C.11 - Descrição da experiência de aprovação PEC-PG / Description of PEC-PG approval experience	6	6	3	3

"I had to go to the federal police website because the PEC-PG student has less support than the PEC-G student. They assume you already have more autonomy, so DRI gives less support. I participated in some DRI things because I was curious, and I went after them. It was not the other way around. They did not come to me to participate and get to know the city, and I took advantage of this program, especially for the PEC-G" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

One of the roles of the International Relations Office - DRI is related to infrastructure support:

Provide a better infrastructure for the reception of students and researchers from abroad - Accelerate the process of drafting and signing conventions and agreements - Establish a housing program for exchange students and visiting professors - Host international events that contribute to the internationalization of the institution (UFMG, 2018a).

DRI receives the students and gives them support since the Pre-arrival stage, when they need a letter of acceptance along with other documents, to apply for the visa. When the international students arrive at UFMG it is received at DRI and oriented to further steps. There are hosting activities that are organized to welcome these students, stimulate the interaction with other students and smooth the adaptation in Brazilian culture.

# 7.1.1.1.4 Category D - PEC-PG e Outros Programas - Pós-Graduação / PEC-PG and Other Programs - Graduate Programs

This category is also related to the two groups of students, the PEC-PG and Other Program, and part of the Pre-arrival stage. It is the fourth category and has eight subcategories, ordered from twelve to nineteen, as Figure 13 presents. These subcategories are:

a) D.12 - Escolha da Pós-Grad / Graduate Program choice – the international candidate must complete a Graduate Program application process. If the candidate is also applying for PEC-

- PG, he/she would have faced the Graduate Program application process beforehand. The candidates of the Other Program group only go through one application process, which is the Graduate Program.
- b) D.13 Primeiro contato Edital Pós-Grad / First Contact with Graduate Program Public Tender
   refers to the first contact of the international student with the Graduate Program Public tender.
- c) D.14 Compreensão Edital Pós-Grad / Graduate Program Public Tender comprehension the international candidate needs to read the Public Tender in Portuguese.
- d) D.15 Contato-Dúvidas Edital Pós-Grad / Graduate Program Public Tender Contact-questions
   this is about whom the international candidate looks for if he/she has questions about the Public Tender
- e) D.16 Preenchimento Currículo Lattes Pós-Grad / Completion of Lattes Curriculum the experience to fill out the Lattes Curriculum, if necessary.
- f) D.17 Compreensão do Português / Portuguese Comprehension level of Portuguese comprehension to accomplish all the application process steps.
- g) D.18 Contato com Departamento ou possível Orientador / Contact with Department or possible Advisor – whom the international candidate contacts to get involved with the Graduate Program research possibilities.
- h) D.19 Bolsa como pré-requisito para estudar / Scholarship as a prerequisite for studying the international candidate is also attracted by the possibility to receive a scholarship.

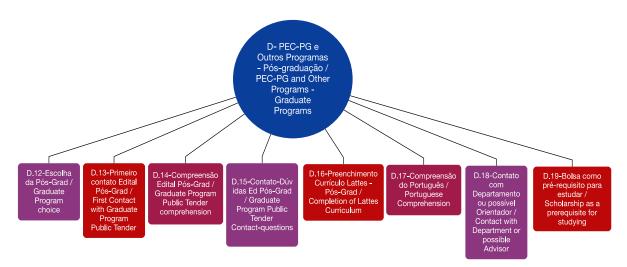


Figure 13 - Category D - PEC-PG e Outros Programas - Pós-Graduação / PEC-PG and Other Programs - Graduate Programs

Table 8 provides the outputs of the analysis. The D- PEC-PG e Outros Programas - Pósgraduação / PEC-PG and Other Programs - The Graduate Programs category does not have any coding references coded directly. Although, seventy-five coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category B, but nine were aggregated from the subcategories.

Table 8 - Category D - PEC-PG e Outros Programas - Pós-Graduação / PEC-PG and Other Programs - Graduate Programs

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
D- PEC-PG e Outros Programas - Pós- graduação / PEC-PG and Other Programs - Graduate Programs	0	75	0	9
D.12 - Escolha da Pós-Grad / Graduate Program choice	22	22	8	8
D.13 - Primeiro contato Edital Pós-Grad / First Contact with Graduate Program Public Tender	10	10	4	4
D.14 - Compreensão Edital Pós-Grad / Graduate Program Public Tender comprehension	1	1	1	1

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
D.15 - Contato-Dúvidas Edital Pós-Grad / Graduate Program Public Tender Contact- questions	1	1	1	1
D.16 - Preenchimento Currículo Lattes - Pós- Grad / Completion of Lattes Curriculum	7	7	5	5
D.17 - Compreensão do Português / Portuguese Comprehension	9	9	4	4
D.18 - Contato com Departamento ou possível Orientador / Contact with Department or possible Advisor	20	20	7	7
D.19 - Bolsa como pré-requisito para estudar / Scholarship as a prerequisite for studying	5	5	3	3

#### Some interview excerpts are provided:

"The motivation was personal. In short, I met my wife there in Italy, she had lived there for a while, and she had to return to Brazil. After a time, I decided that I already intended to do a doctorate abroad as I was finishing my master's degree. Then, I associated things and learned about the interesting doctoral program. So, I made contact to participate in the selection process [...] I had heard about UFMG in general because of my wife, who also studied here, but I had never heard about the university during my undergraduate and master's degrees. In general, none of the research I studied was related to Brazil, to Brazilian institutions" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"First, because of excellence, right? UFMG has always been an excellent reference for me as a student in my area of expertise, biology. Furthermore, I think I could grow a lot. [...] I applied for UFMG, also followed by proximity. [...] I was in Ouro Preto. So, for me, it was interesting to have this approach. I was close to a large university [...] recognized worldwide. And then, I applied for the test afterward. Because if I had gone to my country and then tried the PEC-PG and then returned, I would have wasted time. And there are also the expenses involved with the ticket, with the visa, all the bureaucracy that I would have. Moreover, going straight through, [...] I would not waste time. I would not even run after all the bureaucratic processes, which require re-application, right?" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"So, it (Graduate Program website) was a bit difficult because it was in Portuguese. That was a problem, but I use Google Translate, and I have to look through more faculties. Eventually, I found out that there is a communication and

Sociology, and I looked over the disciplines, and I saw that there are some subjects I can take, you know? Yeah! I remember that the Portuguese was a problem, but days after days I found out all the information I needed" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

In the UFMG Institutional Development Plan 2018-2023, the university aims to develop multilingual websites, besides producing other institutional dissemination material - both up to date - to support the internationalization process. Callahan (2006) underlines that the international student background is different for each country; consequently, the universities should vary on the creation of foreign language versions of their Web pages.

"I think that I entered the doctorate and then chose who could guide me. However, I know that the people who could guide me and everyone would have a vacancy. Then, I would have to choose, and then I chose a supervisor, that Paula Cabral Eterovick" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

A prevalent way of reaching a possible advisor is checking the Graduate Program website and seeing the professors' research interests. Afterward, send an e-mail with the resumé and the intentions about the research. In other cases, this first contact may be intermediated by another person, the coordinator of the Graduate Program, the secretary, the current advisor, or an ordinary researcher – E2, E4, and E6. The SNS has also become a way to connect to a professor, which is the case of how E1 reached the UFMG advisor.

It is also possible to be approved on the Graduate Program and be chosen by a Professor, after that, as E9 described it.

"It's a continuous flow. So, you can enter at any time of the year. But the scholarships are released, I think, on these dates, and then they got me, for now, a scholarship [...] those I told you are those internal scholarships from the department. And that's why I had this problem when applying for a visa, these things" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

Hamid *et al.* (2016) identified through an SLR; the information needs related to international students. The second most pursued information need is related to financial topics "Financial constraint, fee, financial aid, part-time job, lacks adequate research support and scholarship," since international students usually may need final support to finish their studies.

## 7.1.1.1.5 Category E - PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs - Graduate Program Approval

This category covers the two groups of students, the PEC-PG and Other Program, which is part of the Settlement stage. It is the fifth category and has four subcategories, ordered from twenty to twenty-four, as Figure 14 shows. These subcategories are:

- a) E.20 Processo do visto de estudante para o Brasil / Student visa process for Brazil every international candidate from PEC-PG or Other Program, approved, will need to pass by the visa process.
- b) E.21 Tipo de Bolsa Pós-Grad / Type of Graduate Program Scholarship the type of scholarship could be Capes, CNPQ, from the Graduate Program, or Erasmus.
- c) E.22 Contato com Setor da UFMG após aprovação Pós-Grad / Contact with the UFMG Sector after Graduate approval the international candidate will have contact to a UFMG sector after his/her approval. It can be DRI, the Graduate Program, or another sector.
- d) E.23 Descrição da experiência da aprovação Pós-Grad / Description of the Graduate Approval Experience / Graduate Approval Experience Description it is sum-up of the approval experience.

Figure 14 - Category E - PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs - Graduate Program Approval

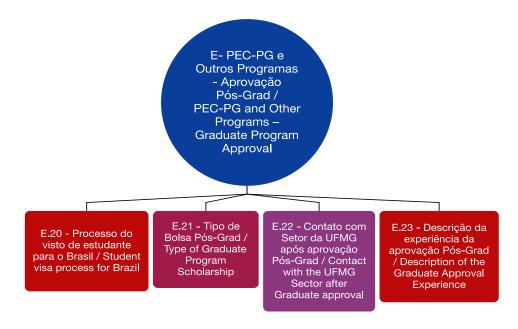


Table 9 shows the results of the analysis. The E- PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs — Graduate Program Approval category does not have any coding references coded directly to it. Though, forty-seven coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category E, but nine were aggregated from the subcategories.

Table 9 - Category E - PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs - Graduate Program Approval

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
E- PEC-PG e Outros Programas - Aprovação Pós- Grad / PEC-PG and Other Programs – Graduate Program Approval	0	47	0	9
E.20 - Processo do visto de estudante para o Brasil / Student visa process for Brazil	23	23	7	7
E.21 - Tipo de Bolsa Pós-Grad / Type of Graduate Program Scholarship	4	4	3	3

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
E.22 - Contato com Setor da UFMG após aprovação Pós-Grad / Contact with the UFMG Sector after Graduate approval	6	6	6	6
E.23 - Descrição da experiência da aprovação Pós- Grad / Description of the Graduate Approval Experience / Graduate Approval Experience Description	14	14	6	6

#### Below there are some interview excerpts:

"As soon as I was approved, the CNPQ staff sent me all the documents because I had to get a student visa. Then I got in touch with the Brazilian Embassy in Cape Verde. When I got the visa, upon arriving in Brazil, I went first to the Federal Police, and then I went to the DRCA to enroll [...] As I said earlier, the CNPQ sends you some documents that prove that you will be a scholarship holder. So, you don't have to prove how you're going to stay in Brazil. In addition to documents stating which university, you came from, also documents stating that the university will help you during these four years of your doctorate. So, all these documents make it easy. Furthermore, they are sent directly to the embassy. Because when the visa is for students, it's more relaxed. Well, you are already in the right direction, especially when you are a scholarship holder. So, the visa issue is more relaxed" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"Well, I am curious, so I went to the UFMG website. I went to see if there was any support service for international students, and I saw the DRI. I got in touch with the DRI. The information they gave me was each saying one thing. One said that I was guaranteed a place in the house. Another said that I had no right because I was a graduate student. The information didn't quite match, so I had to look at other ways and contact other people who had a house to rent. Until that moment, I was still in Cape Verde. I did the entire process in Cape Verde. From the moment I was approved, when the list came out, I started to contact students and colleagues who were already studying at UFMG to obtain information. My brother, who studied at UFOP, Ouro Preto, also gave me much information. He studied at PEC-G, he graduated in Civil Engineering, so he already knew BH" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"Look, as a PEC-G student, the fact of being a pioneer, who goes through everything to open doors for others, everyone goes through that, so we went through that. Then, when the paths we followed already existed, we opened several doors. So, whoever came had no problem anymore. Nevertheless, come to think of it, there will always be problems in the world, so, come to think of it, people will manage to go through it. As I left and returned, it was as if I had left my house and gone back home [...] That's why I preferred to go back to Belo Horizonte. If not, I would prefer to stay in Pelotas or at UFRJ because I selected these two. This weighed on my decision to return to Belo Horizonte [...] I already knew where to stay, which house to live in. Because, if I went to Rio, where I don't dominate anything, I only know UFRJ. So, I would have to look for a house, do it all over again, or in Pelotas too, which I've never been to". (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

E4 had already lived in Belo Horizonte and studied at UFMG. He faced challenges at that time and learned from them. Because he knew the environment, he decided to come back to Belo Horizonte. On the other hand, he had not lived in Rio de Janeiro and had never gone to Pelotas. The knowledge that he had already acquired from the experience to live in BH and study at UFMG put him in a position of ongoing search "where active searching has already established the basic framework of knowledge, ideas, beliefs or values, but where occasional continuing search is carried out to update or expand one's." Besides that, what could be a psychological barrier, as Wilson (2006) described, served as an advantage. MacInnis and Jaworski (1991) suggested that the more knowledgeable the person, the easier he/she would find it to code information, thus making additional information acquisition easier.

The same case is for E3, who had already lived in Brazil; although it was São Paulo, she had gone through other challenges when she was PEC-G. It was one of the reasons that she chose to come back to Brazil. E9 also was a PEC-G in Ouro Preto, which is 100km from Belo Horizonte. He mentioned many times during the interview the network support he had during his undergraduate course when coming to BH to renew the passport, for example. So, he decided to apply for UFMG, considering its excellence.

#### 7.1.1.1.6 Category F - Matricula UFMG / UFMG Enrollment

This category includes the two groups of students, the PEC-PG and Other Program, and is part of the Settlement stage. It is the sixth category and has six subcategories, ordered from twenty-four to twenty-nine, as Figure 15 illustrates. These subcategories are:

- a) F.24 Recepção na UFMG / Reception at UFMG it refers to whom hosted the international candidate when he/she arrived in Belo Horizonte or at UFMG.
- b) F.25 Procedimentos para se tornar aluno(a) da UFMG / Procedures for becoming a UFMG student it is related to all the procedures that the international student goes through to officialize that he/she will study at UFMG.

- c) F.26 Contato com a Diretoria de Relações Internacionais DRI / Contact with the International Relations Office – DRI – this contact may have already happened when the international candidate was wondering about possibilities or after he/she becomes an international student.
- d) F.27 Celpe-Bras- teste de proficiência em Português / Celpe-Bras- Portuguese proficiency test in certain cases the Celpe-Bras test was mandatory.
- e) F.28 Burocracia e documentação na chegada / Bureaucracy and documentation upon arrival as soon as the international student arrives, he/she needs to go to the Federal Police to open an account, to have a CPF among other issues.
- f) F.29 Renovação de visto periodicamente / Visa Periodical Renewal Every international student must periodically go to the Federal Police to renew the passport, depending on their home country.

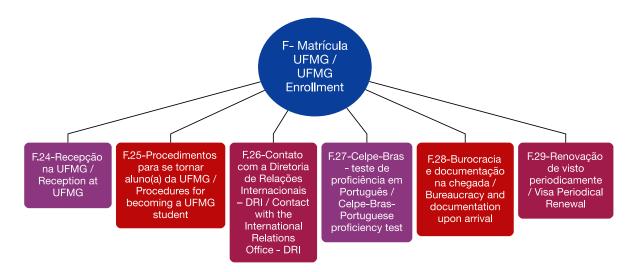


Figure 15 - Category F - Matrícula UFMG / UFMG Enrollment

Table 10 presents the results analyzed. The F- Matricula UFMG / UFMG Enrollment category does not have any coding references coded directly to it. However, a hundred and thirteen coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category F, but nine were aggregated from the subcategories.

In pink is Category F - one of the most coded among the other categories with a hundred and thirteen references.

In green is Subcategory F.26 - the most coded within Category F with forty-nine references.

In grey is Subcategory F.28 - the second most coded within Category F with eighteen references.

Table 10 - Category F - Matrícula UFMG / UFMG Enrollment

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
F- Matrícula UFMG / UFMG Enrollment	0	113	0	9
F.24 - Recepção na UFMG / Reception at UFMG	8	8	5	5
F.25 - Procedimentos para se tornar aluno(a) da UFMG / Procedures for becoming a UFMG student	17	17	7	7
F.26 - Contato com a Diretoria de Relações Internacionais – DRI / Contact with the International Relations Office - DRI	49	49	9	9
F.27 - Celpe-Bras- teste de proficiência em Português / Celpe-Bras- Portuguese proficiency test	16	16	6	6
F.28 - Burocracia e documentação na chegada / Bureaucracy and documentation upon arrival	18	18	7	7
F.29 - Renovação de visto periodicamente / Visa Periodical Renewal	5	5	4	4

Source: Research data (2021).

There are some relevant interview excerpts:

"There is also my girlfriend who came with me, she knew a girl here from Belo Horizonte, and this girl knew a guy from the DRCA. So, he pulled strings inside, and I could do the registration and everything. But it was also an atypical situation, UFMG was on strike, so it was more complicated to get to talk to people" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"So, all this was helped by African colleagues who had been here longer. From the CPF, creating a bank account, renting a house, documents for the university. Finally, documents for visa renewal, bus logistics, how you get to another city, times, dates that you have to put, of the important phones. Anyway, all this, given

mainly by colleagues who arrived before" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

To accomplish these procedures, E1 and E2 were helped by their partners. The partner of E1 is Brazilian. The partner of E2 was also an international graduate student at UFMG, who had arrived earlier, besides being from the same country. E3 had already lived in B.H. and was a PEC-G student at UFMG. So, he knew all the procedures.

E6 was from Romania, and the only international student from Romania that he knew was a friend from Erasmus who had come over to do the Exchange Program at UFMG with him. E8 was from Italy and mentioned that there were not many international students in his department at that time. E6 and E8 are called International-less-common students by Oh and Butler (2019). In this case, there were no communities of other international students from Romania and Italy at UFMG, when they arrived. They found themselves isolated from the international community in general. The authors say that these students did not contact co-nationals during the Pre-arrival stage. Moreover, "often without existing online co-national communities in their new local area, rarely engaged in co-national networking and information practices during their adjustment as well as before their arrival in the new environment." (O.H.; BUTLER, 2019, p. 1069).

On the contrary, E9 was an International-common student according to the same authors. Before leaving their countries, there were online communities formed by other students from Cape Verde, as Oh and Butler exemplify when mentioning international students living in the U.S. and studying at the University of Maryland. The co-nationals that were already living in the U.S. included senior/existing and peer/new students. This interaction among co-nationals would be available online and, on their mobiles, allowing "networking and information practices in offline, online, and mobile settings." (O.H.; BUTLER, 2019, p. 1068). These co-national communities would keep existing even after the newest students arrive.

"This is something I have to mention. I got the Godfather (Buddy) from UFMG from this International (...), And he was a student [...] at UFMG, at Letras University. Letras (...) And he helped me. Also with information, mostly about Brazil and how is life there. And what are the eating places I have to see, how expensive it is, different stuff. So, it was more about the... like living in Brazil (...), And this guy contacted me. And we talked a lot" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"There were a lot of documents. Actually, what I remember is that Brazil has a big bureaucracy, like a lot of documents that you need, and they're kind of difficult to get. Like, if you are new in that country, take some time to think, to discover the

documents you need. To know how to complete them" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

#### 7.1.1.1.7 Category G - Belo Horizonte – interação / Belo Horizonte – interaction

This category includes the two groups of students, the PEC-PG and Other Program. It is partly from the Settlement stage and partly from the Current stage when UFMG international student has already adapted to the environment and established a routine. It is the seventh category and has twelve subcategories, ordered from thirty to forty-one, as Figure 16 exposes. These subcategories are:

- a) G.30 Busca por moradia em BH / Belo Horizonte housing search as soon as the international student arrives, he/she needs a place to stay. Some students may have already found a place before they arrived, which may vary.
- b) G.31 Atendimento Médico em BH / Medical Care in Belo Horizonte every international student in the Brazilian territory is allowed to use SUS. However, the student may explore other options.
- c) G.32 Interação desde a chegada em BH / Interaction since arrival in Belo Horizonte the type of interaction that the student has since his/her arrival depends on his/her connections, which can be from the same country or knowing someone since he/she was in his/her home country.
- d) G.33 Lugares favoritos em BH / Favorite places in BH it is a natural movement to get to know the city and be more frequent at certain places, which is a personal experience
- e) G.34 Atividades favoritas em BH / Favorite Activities in Belo Horizonte in the Current stage, when the student has already adapted to the environment, it is natural to have a routine and go to specific places according to personal interest.
- f) G.35 Similaridades entre Brasil ou BH e cultura de origem / Similarities between Brazil or BH and culture of origin the international students might come from different countries, but there is a tendency to look for similarities with Brazilian culture.
- g) G.36 Comida típica de Minas Gerais / Minas Gerais typical food it is about how the international student explores Minhas Gerais cuisine.
- h) G.37 Interação com brasileiros em geral / Interaction with Brazilians in general besides the UFMG environment, the international student has contact with Brazilian people. Therefore, it concerns how this interaction would happen.

- i) G.38 Adaptação à cultura brasileira / Adaptation to Brazilian culture it is about how the adaptation process would work out.
- j) G.39 Adaptação ao português brasileiro / Adaptation to Brazilian Portuguese the local language adaptation is part of the whole adjustment process.
- k) G.40 Contato com outros estrangeiros ou compatriotas / Contact with other foreigners or compatriots – usually, the international student looks for compatriots or relates with other foreigners.
- l) G.41 Locomoção dentro e fora do Campus / Getting around on and off-campus it relates to the movement of going back and forth to different places, inside the Campus and outside of it.



Figure 16 - Category G - Belo Horizonte - interação / Belo Horizonte - Interaction

Table 11 shows the outputs of the analysis. The G- Belo Horizonte – interação / Belo Horizonte – interaction category does not have any coding references coded directly to it. Although, two hundred and forty-eight coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category G, but nine were aggregated from the subcategories.

Category G is the most coded among the other categories with two hundred and forty-eight references.

In green is Subcategory G.32 - the most coded within Category G with thirty-nine references.

In grey is Subcategory G.30 - the second most coded within Category G with thirty-three references.

Table 11 - Category G - Belo Horizonte - interação / Belo Horizonte - Interaction

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
G- Belo Horizonte – interação / Belo Horizonte – interaction	0	248	0	9
G.30 - Busca por moradia em BH / Belo Horizonte housing search	33	33	9	9
G.31 - Atendimento Médico em BH / Medical Care in Belo Horizonte	13	13	8	8
G.32 - Interação desde a chegada em BH / Interaction since arrival in Belo Horizonte	39	39	9	9
G.33 - Lugares favoritos em BH / Favorite places in BH	14	14	8	8
G.34 - Atividades favoritas em BH / Favorite Activities in Belo Horizonte	9	9	7	7
G.35 - Similaridades entre Brasil ou BH e cultura de origem / Similarities between Brazil or BH and culture of origin	16	16	7	7
G.36 - Comida típica de Minas Gerais / Minas Gerais typical food	17	17	8	8
G.37 - Interação com brasileiros em geral / Interaction with Brazilians in general	13	13	6	6
G.38 - Adaptação à cultura brasileira / Adaptation to Brazilian culture	20	20	9	9
G.39 - Adaptação ao português brasileiro / Adaptation to Brazilian Portuguese	28	28	8	8
G.40 - Contato com outros estrangeiros ou compatriotas / Contact with other foreigners or compatriots	34	34	8	8
G.41 - Locomoção dentro e fora do Campus / Getting around on and off-campus	12	12	6	6

There are some relevant interview excerpts:

"I arrived, then I went to the house of some Cape Verdeans. However, before coming here (to Brazil), I asked E4 to help me find a home to live in. Then, E4 had a friend who lived in Pampulha, in the Liberdade neighborhood, and he was going to the countryside to do an internship. So, the apartment was going to be free. Then, as soon as I arrived, I went to that apartment. However, later I had to move to the center, because the (medical) faculty is in the center, to avoid the transportation exhaustion, distance, and traffic" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"[...] I already knew where to stay, which house to live in [...] I did everything by myself" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"We don't have health insurance, it's very expensive for us. Because [...] to keep depending [...] on the money we have, the expenses we make are [...] well [...] I have to pay health insurance for these expenses with medication; we couldn't handle it. But then, the one who helped me was a girlfriend I had when her family came to pick me up at home and took me to the SUS [...] Through the SUS and they serve us well. I arrived, I was very well attended and received, and they treated me well, and I had been sick at home for almost a week, right? I got there in a matter of hours, I was already feeling better" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"Well, we have some things in common. I think our people in Latin America have some things in common: this desire to help people. I received a lot of help from people who don't even know me, and I'm grateful that they had given me this opportunity. This kind of help at the right time, and I don't know if there is a word in Portuguese, maybe solidarity. Because having this help in our peoples is very good, this mutual solidarity doesn't matter if we know each other or not. We don't know the turns that life takes, and it is always a value that we must always maintain, and not lose humanity, even if they are not friends or Family" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I only met some Brazilians who were friends with university students, who were from outside the university, but they didn't become my friends. We just shared some time, some activity, a barbecue, but that's about it. So far, I have not developed relationships with people outside the academic environment" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"It was [...] it was kind of a cultural shock for me to come to Brazil. Because it's (...) a very different culture, like the first thing that was different, it's the temperature. So, I don't know if this is related to culture, but it was a shock for me because I came from, I think like minus 20 degrees Celsius to 30. 30 degrees. That was a very hard shock for me [...] Summer in my country is winter at the same time. (...) And this is like half a year it's winter, and half a year it's summer, something like that. And then it was this time zone difference that affected me. Because in Brazil, I was six hours behind my country, and it took me some time to adapt to this. The food was totally different. Totally! Like Brazil has many, many dishes. And I tried all of them. I've never seen something like that (...), And the people were different. Also, I discovered that Brazilians are very touchy. They like to touch you. We don't really do that. In my country, it's like it's our personal space, and when someone touches us (...) is like an aggressive way of talking, you know? (...) Even though I'm not very shy, let's say. But I still feel that like a threat, let's say. And, they're very kind. You know, I think they're the kindest persons I've met. Usually, what I see in my country is that everyone is going fast to arrive at

some meetings or be on time somewhere, and when I go through the city, I'm in a crowded a big crowd, and the people push me through the city. This is how I called in Romania, and in Brazil, they actually go down slowly. (...) I was adapted to (...) this idea of going fast of being in time and in Brazil, I could just relax and take my time" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"[...] I was able to understand most things from the beginning. Now, writing, in the beginning, was a bit difficult because I didn't master all the grammar rules, the conjugations, that sort of thing. But then I had the advisor's help because I would send the work to her, take a look, and help me correct my Portuguese. Then, over time, I learned and improved a lot [...] Today it's much easier. I think I can write today. I always send someone to take a look at the texts, but today it's much easier" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

The subcategories above refer directly to the cultural adaptation of the international students in the Brazilian environment, being more specific, in the city of Belo Horizonte, in the state of Minas Gerais. Sin *et al.* (2011, p. 1) define that "acculturation is the process in which an individual learns about and adapts to the socio-cultural norms of the host country. Therefore, successful acculturation can contribute toward the newcomer's productivity and quality of life." When analyzing culture as a factor, Worrall, Ballantyne, and Kendall (2019) affirm that learning more about new culture leads to a stronger feeling of "fitting in." On the other hand, not knowing intricacies of new culture can lead to confusion in ICT use and information sharing.

In the case of the international students, their professional environment is UFMG. Therefore, they face cultural challenges daily, learning new skills as a student/researcher through the Graduate Programs. The authors Hertzum and Hyldegård (2019), Hughes (2005), and Sin and Kim (2013) describe some of these challenges when the students introduce themselves to a new culture, university, people surrounding them hence different information needs from a changing physical and social environment. In this process, they are confronted daily, once they go for academic goals such as socially, through a new education system, on the top of linguistic and cultural differences.

After the international students settle down, they establish a routine and feel that their environment is more familiar than when they had arrived. However, Hertzum and Hyldegård (2019) call attention to the relevance of acculturation from Pre-arrival and continuing even after introductory activities have ended, which is the Current stage. Furthermore, the authors remember the role of the host universities in this context and the importance of studying international students' information needs once they are settled.

"It is a network, [...] a connection of information that comes naturally. But when the university enters, in this case, as was the case with Mr. Adilson (UFOP-Graduation-PEC-G), this increases its potential. Because it makes something more official, more responsible [...] These networks, I think many people are looking for them. So, I guess what happened the most was on the internet, you know? On the internet, they go looking; there's one who knows another person, there's one who knows someone else, so they keep asking. Those who had already studied there, for example, in Cape Verde, before I went to Brazil, I met a person who referred me to the person who would receive me in Viçosa; I said that I was going to study in Brazil. So, the person told me, 'look, I know someone in Viçosa' And coincidentally, I knew the person too, so that was easier, right? But in my case, it was like this: contacts there in Cape Verde referred me to people they knew here, from former students who came [...] They said: 'look, I know this person and that person and that place' Then, they recommended them to me. We got in touch, and they were willing to receive me. So, every place we go to, there is someone who knows someone else and recommends someone else" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

In the study developed by Yoon and Chung (2017), the students that intended to study in the U.S., when they were in the Pre-arrival stage, they used the internet as their primary source of information, "and eight of them additionally reported receiving assistance from people in the U.S. (friends, family, relatives, and/or agents of related institutions)." People were more appreciated as sources of information than websites, especially if the participant did not know where to begin his/her search.

For Oh (2018), the international students who had many co-nationals in their environment tended to look for co-nationals as their main information source. In addition to acquiring local information from them in offline, online, and mobile settings.

#### 7.1.1.1.8 Category H - UFMG - interação / UFMG - interaction - interviews excerpts

This category covers the two groups of students, the PEC-PG and Other Program. It is partly from the Settlement stage and partly from the Current stage when UFMG international students have already adapted to the environment and established a routine. It is the eighth category and has nine subcategories, ordered from forty-two to fifty, as Figure 17 presents. These subcategories are:

- a) H.42 Interação com estudantes brasileiros da UFMG / Interaction with Brazilian students at UFMG it refers to the relationship that international students have with Brazilian students.
- b) H.43 Interação com os Professores brasileiros / Interaction with Brazilian Professors it is about how the international student relates with Brazilian Professors.

- c) H.44 Contato com colegas de sala / Contact with classmates it refers to the relationship of international students with Brazilian students.
- d) H.45 Contato com funcionários da UFMG / Contact with UFMG employees the contact of the international students with UFMG employees.
- e) H.46 Contato com os funcionários do departamento / Contact with department employees the contact of the international students with the department employees, including the one from the help desk.
- f) H.47 Contato com outros estudantes do PEC / Contact with other PEC students how is the relationship of the international students with PEC-G (undergraduate course) or PEC-PG (Graduate Programs).
- g) H.48 Explorando o Campus da UFMG / Exploring UFMG Campus there is UFMG Campus Pampulha and other Campi. The international student may explore them according to his/her needs.
- h) H.49 Interação com colegas do Lab ou grupo de pesquisa / Interaction with Lab colleagues or research group the relationship of the international students with the research group colleagues.
- i) H.50 Assistindo aulas / Attending classes the experience of attending UFMG classes.

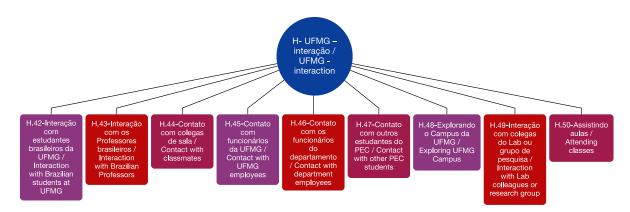


Figure 17 - Category H - UFMG - Interação / UFMG - Interaction

Table 12 presents the results of the analysis. The H- UFMG – interação / UFMG - interaction category does not have any coding references coded directly to it. Although, eighty coding

references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category H, but nine were aggregated from the subcategories.

Table 12 - Category H - UFMG - interação / UFMG - interaction Category H

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
H- UFMG – interação / UFMG -interaction	0	80	0	9
H.42 - Interação com estudantes brasileiros da UFMG / Interaction with Brazilian students at UFMG	15	15	6	6
H.43 - Interação com os Professores brasileiros / Interaction with Brazilian Professors	9	9	6	6
H.44 - Contato com colegas de sala / Contact with classmates	12	12	5	5
H.45 - Contato com funcionários da UFMG / Contact with UFMG employees	6	6	5	5
H.46 - Contato com os funcionários do departamento / Contact with department employees	5	5	4	4
H.47 - Contato com outros estudantes do PEC / Contact with other PEC students	8	8	5	5
H.48 - Explorando o Campus da UFMG / Exploring UFMG Campus	10	10	6	6
H.49 - Interação com colegas do Lab ou grupo de pesquisa / Interaction with Lab colleagues or research group	5	5	3	3
H.50 - Assistindo aulas / Attending classes	10	10	4	4

Source: Research data (2021).

There are some relevant interview excerpts:

"I had a lot of support, as soon as I arrived, they saw that I was a foreigner, so they came and asked if I had any difficulties. But after that, each one goes to their own lives. With some, I lost contact after I finished the subjects. It's comprehensive, but you're more alone even after completing the disciplines. So, you have to find ways to interact with the people at your house or call a friend you made at the beginning to have a beer and meet" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"Mostly what I found in university is that the people talk in English. Most of the people, not 100%. But I would say 80% of the people speak in English. And that's awesome Because, when I was going to the University, I was always able to find someone that was talking in English and if I had a problem, I was... solving it very fast, you know? Because I was getting the information I needed. And it is the same with the classmates they were talking in English. And we had to be great communication" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"So far, I only have good experiences. So far, I haven't had any problems with any library employees or any department at the university. I've always had a good reception, and they helped as much as possible" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

# 7.1.1.1.9 Category I - Bolsas Capes-CNPQ / Capes-CNPQ Scholarships

This category covers the two groups of students, the PEC-PG and Other Program, partly from the Settlement stage and partly from the Current stage, when UFMG international student has already adapted to the environment and established a routine. It is the ninth category and has seven subcategories, ordered from fifty-one to fifty-seven, as Figure 18 illustrates. These subcategories are:

- a) I.51 Evento acadêmico / Academic event it refers to conferences, seminars, congresses, and other types of events
- b) I.52 Relatório do evento acadêmico / Academic event report in some cases, the international student must report either to Capes or CNPQ about the event that he/she has gone.
- c) I.53 Relatório semestral da Capes or CNPQ / Capes or CNPQ semi-annual report it is a report requested by Capes or CNPQ about all the activities developed during the semester or during the year.
- d) I.54 Informação adicional para a Capes ou CNPQ / Additional information for Capes or CNPQ
   any extra information requested by Capes or CNPQ.
- e) I.55 Comunicação com a Capes ou CNPQ / Communication with Capes or CNPQ any contact with Capes or CNPQ regarding a specific topic.
- f) I.56 Processo de concessão de bolsa após aprovação da Pós-Grad / Scholarship granting process - after Graduate Program approval – it refers to describing how was the scholarship granting process
- g) I.57 Perda de bolsa / Scholarship loss if the international student has ever heard of someone who has lost the scholarship.

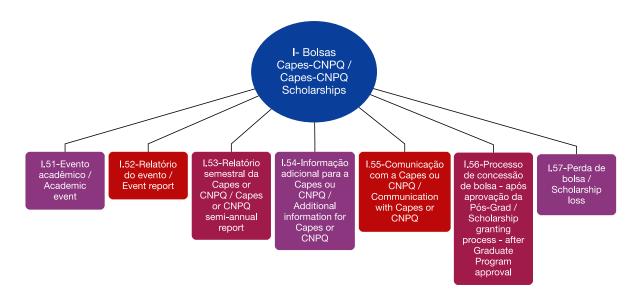


Figure 18 - Category I - Bolsas Capes-CNPQ / Capes-CNPQ Scholarships

Table 13 shows the results analyzed. The I- Bolsas Capes-CNPQ / Capes-CNPQ Scholarships category does not have any coding references coded directly to it. However, thirty-eighty coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to Category I, but seven were aggregated from the subcategories.

Table 13 - Category I - Bolsas Capes-CNPQ / Capes-CNPQ Scholarships

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
I- Bolsas Capes-CNPQ / Capes-CNPQ Scholarships	0	38	0	7
I.51 - Evento acadêmico / Academic event	1	1	1	1
I.52 - Relatório do evento acadêmico / Academic event report	0	0	0	0
I.53 - Relatório semestral da Capes or CNPQ / Capes or CNPQ semi-annual report	9	9	6	6
I.54 - Informação adicional para a Capes ou CNPQ / Additional information for Capes or CNPQ	2	2	1	1
I.55 - Comunicação com a Capes ou CNPQ / Communication with Capes or CNPQ	10	10	4	4

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
I.56 - Processo de concessão de bolsa - após aprovação da Pós-Grad / Scholarship granting process - after Graduate Program approval	13	13	6	6
I.57 - Perda de bolsa / Scholarship loss	3	3	3	3

"I report on academic performance, how it interacts with the academy, and I also had to send proof of visa renewal. It's smooth. You send the documents via a specific online communication channel with Capes, direct line. And you just upload the documents, they give you a visa, and that's it, the scholarship is renewed. I just had a problem with the scholarship; as I changed the program, they migrated me, and I was PPGCI. I went to PPGOG, so I didn't receive the scholarship for 2 months, and I had communication problems. They canceled the scholarship but did not go to PPGOG, then there was a problem, but it was overcome" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"It was very brief; they simply took the information. I filled out some documents they needed to send to CNPq to implement the grant. However, the link to the funding agency wasn't with the program. It was the DRI because of the type of exchange I was going to do. Nevertheless, it was too brief, not much conversation. It was a procedure already established by them. It was just filling in the documents, delivering others, and that's it" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

# 7.1.1.1.10 Category J - Fontes de informação / Information sources

This category includes the two groups of students, the PEC-PG and Other Program. It is common to the three phases that international students go through Pre-arrival, Settlement stage, and Current stage. It is the tenth category and has eleven subcategories, ordered from fifty-eight to sixty-eight, as Figure 19 shows. These subcategories are:

- a) J.58 Telefone / Telephone identified when any contact or information passed was over the phone.
- b) J.59 E-mail / Email when any contact or information passed was by e-mail.
- c) J.60 Redes Sociais populares / Popular social networks it is when any contact or information passed was using social networks, in this case: Facebook, Instagram, Linked-in, or any other.

- d) J.61 Redes sociais acadêmicas / Academic social networks it is when any contact or information passed was using social networks, in this case: Quora, Academic EDU, Research Gate, and any other.
- e) J.62 Messenger ou WhatsApp / Messenger or WhatsApp identified when any contact or information passed was through Messenger or WhatsApp.
- f) J.63 Pessoalmente / In-person when any contact or information passed was face-to-face with another person.
- g) J.64 Site da UFMG / UFMG website identified when any contact or information passed was through UFMG website.
- h) J.65 Site do departamento ou Pós-Graduação / Department website or Graduate Program any contact or information passed through the Department website or Graduate Program.
- i) J.66 Pessoa como referência de informação / Person as information reference when any contact or information passed through a person who became a reference for when needed.
- j) J.67 Secretaria do Programa de Pós-Graduação / Graduate Program Help Desk when any contact or information passed occurred through the Graduate Program Help Desk.
- k) J.68 Plataforma de localização geográfica / Geographic location platform when a Geographic location platform was used to have directions.



Figure 19 - Category J - Fontes de Informação / Information Sources

This category has eleven subcategories and nine files attached. Thus, a total of a hundred and eighty-four references are connected to this code.

Table 14 presents the outputs analyzed. The J- Fontes de informação / Information sources category does not have any coding references coded directly to it. Although, a hundred and eighty-

four coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category J, but nine were aggregated from the subcategories.

In pink is Category J- one of the most coded among the other categories with a hundred and eighty-four references.

In green is Subcategory J.66 – the most coded within Category J and the most coded among the other subcategories of the entire analysis with eighty-five references.

In grey is Subcategory J.67 - the second most coded within Category J with twenty references.

Table 14 - Category J - Fontes de informação / Information sources

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
J- Fontes de informação / Information sources	0	184	0	9
J.58 - Telefone / Telephone	7	7	3	3
J.59 - E-mail / Email	19	19	7	7
J.60 - Redes Sociais populares / Popular social networks	17	17	5	5
J.61 - Redes sociais acadêmicas / Academic social networks	1	1	1	1
J.62 - Messenger ou Whatsapp / Messenger or Whatsapp	12	12	5	5
J.63 - Pessoalmente / In-person	13	13	7	7
J.64 - Site da UFMG / UFMG website	2	2	1	1
J.65 - Site do departamento ou Pós- Graduação / Department website or Graduate Program	7	7	4	4
J.66 - Pessoa como referência de informação / Person as information reference	85	85	9	9
J.67 - Secretaria do Programa de Pós- Graduação / Graduate Program Help Desk	20	20	8	8

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
J.68 - Plataforma de localização geográfica / Geographic location platform	1	1	1	1

There are some relevant interview excerpts:

"It was good, especially with the Graduate Program Help Desk staff, who are the ones we talk to the most. With the employees, it was cordially, no problem at all. The secretaries are very helpful. They explained things, you send them an email, and they respond, or you call" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"Facebook helps, but not that much. More personal contact. For example, you were invited to a party, then a new person from Cuba shows up, and we keep in touch, then there are other activities, and the circle gets more expansive, it gets wider. [...] For example [...] there was that Bar Latino. The Bar Latino was a good place because people gather there, and you not only meet people from Cuba, but people from other Latin American countries show up" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"We (About Cape Verdeans who live in the region of BH) have a Facebook group called "People BH," formed by Cape Verdeans from PEC-PG and PEC-G, and we also have a group of "WhatsApp" [...] There are different types of groups. There is a group of people from Cape Verde, and other groups with people from Mozambique, Angola, from other (African) countries, which we also live with a lot. It has larger and smaller groups. We always meet! [...] But I know other people, too. I met through Facebook and also through an app called "Happn." So, I have a lot of friends and friends I met there. In Cape Verde, there is no such thing as an app... So, I downloaded it to meet people who have become great friends today" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public health).

The interviews excerpts above demonstrate the aim of communicating and using information sources for different reasons, such as social connections, academic-related, bureaucratic procedures, housing, among others. However, the sense of an international community is relevant for these students, and their information sources may also vary when searching for information. Worrall, Ballantyne, and Kendall (2019) exemplify the most common information sources in the study at a Canadian university. They developed a study in a Canadian university and emphasized using Facebook Messenger and email by the interviewees for academic purposes and daily interactions with other students, friends, and colleagues in their home countries.

Besides that, the most common social media sources were Facebook and Instagram for everyday information practices, along with the university and student groups, such as events happening on or near campus. Other utilitarian sources used were Google search and WhatsApp, a messaging app in everyday use outside North America, for daily communication and academic issues.

It corroborates other authors mentioned previously that the internet and people are the primary information sources used by international students. Another point is that the students use the SNSs significantly, depending on the information needed.

"Fortunately, the DCC Program seems to me to be one of the most transparent programs at UFMG. By entering their website, you can find all the information you need; without contacting them by phone, everything is there: questions, prerequisites, documentation, forms. It's all online [...] the information [...] we need to join the Graduate Program. It's all [...] on the Graduate Program's website. [...] everything is evident there, and the Graduate Program Help Desk system too. The system is excellent. It works perfectly. So, sending documents and the process went very smoothly [...] Well, it all started via the website, via e-mail. That is after I was accepted [...] I began to communicate directly with the DCC Secretariat" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"At the time, I had the secretary here in the Graduate Program, Inês, who has retired, and she guided me through all the procedures. [...] When I arrived, my wife had already looked for me (a place to live) in the house near hers, she also lived in the house, and I asked her to get me something nearby [...]" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Communication started in English because she (DCC Secretary) did not know Spanish. And he (Argentinian Professor from DCC with Cuban wife and children) knew what I was talking about. He knew, so he went as an interpreter on the Brazilian side for the process. But yes, for the visa process, all the documentation I needed was via email. The DCC gave me everything I needed: the letter of acceptance, the documents I had to present, there, at the Brazilian embassy in Cuba [...] the DCC is well organized in this regard (on arrival at UFMG). They knew I didn't know anything. I was lost. I couldn't even dominate the language. And they looked for a crowd, who guided me. They took a student; I remember he was a master's student from Colombia, who already knew how the process is, from the whole process abroad. And he was the one who [...] guided me. You will have to come here [...] you need this document. That is, they looked for people with experience. Usually like this, they look for people who are students of the program [...] they already know what the experience is like, who have been through it and put them as a 'manager' for the guy, when he or she arrives [...] They are things made like the department's initiative [...] It is not something organized from outside" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"She (Mrs. Beartiz) was very significant. She helped me anytime, with everything I needed. So, she was actually giving me advice and giving me information, that I

maybe I was struggling, just searching around for it (...) I got the buddy (Godfather 8) from UFMG from this International (DRI) (...), And he was a student (...) at UFMG (...) Letras (...) he helped me also with information, mainly about Brazil and how is life there and what are the eating places I have to see, how expensive is, different stuff. So, it was more about (...) living in Brazil (...) Godfather 8 got me to where I was staying. It was his friends' place" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

Yoon and Chung (2017) also stated that the internet and people (family, friends, relatives, and staff in international students' offices) were the primary sources of information for international students in the Pre-arrival and Settlement stages. The authors highlighted:

[...] International offices and departments were also reported as sources of information, but whenever participants expressed satisfactory services or appreciations, they referred to a specific person in the organization. In addition to the information they obtained, personal/emotional support made international students feel satisfied with their information search results (YOON, CHUNG, 2017, p. 9).

In many cases, UFMG international graduate students mentioned the names of the workers who had helped them through any part of the process. These people are either from the consulate or embassy. They also could be connected to UFMG as a department employee, DRI or DRCA. In addition, there were people from their network, such as partners, friends, or family, who either gave information or became a future connection. Oh and Butler (2019, p. 1063) stated that "international students' local co-national contexts can differ depending on the interactions of multiple factors such as host countries, locations, universities, and social networks" (OH; BUTLER, 2019, p. 1063).

"So, I always went to the Graduate Program Help Desk directly. So, I've always had a good relationship with them. Because we are foreign students, we always have to go to the Department, look for documents to go to the Federal Police, to renew the visa" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# 7.1.1.1.11 Category K - Opinião / Opinion

This category includes the two groups of students, the PEC-PG and Other Program. It is the eleventh category and has four subcategories, ordered from sixty-nine to seventy-two, as Figure 20 shows. These subcategories are:

- a) K- Opinião / Opinion the interviewers gave their opinion about different topics.
- b) K.69 Comentário adicional / Additional comment extra comments considered relevant by the interviewers.

- c) K.70 Maior desafio / The biggest challenge the main challenges that the students went through.
- d) K.71 Experiências pessoais / Personal experiences specific and personal experiences
- e) K.72 Sugestão de solução / Suggestion of Solution suggestion of solution to specific issues.

Figure 20 - Category K - Opinião / Opinion



Table 15 presents the results analyzed. The K- Opinião / Opinion category does not have any coding references coded directly to it. Though, a hundred and four coding references were aggregated from the subcategories. It is also the same case that none of the files were coded directly to category K, but nine were aggregated from the subcategories.

Table 15 - Category K - Opinião / Opinion

Categories/Subcategories/Codes	Number of coding references	Aggregate number of coding references	Number of files coded	Aggregate number of files coded
K- Opinião / Opinion	0	104	0	9
K.69 - Comentário adicional / Additional comment	14	14	8	8
K.70 - Maior desafio / The biggest challenge	22	22	8	8
K.71 - Experiências pessoais / Personal experiences	64	64	7	7
K.72 - Sugestão de solução / Solution suggestion	4	4	3	3

## Some relevant interview excerpts:

"I heard from other foreigners who have also lived here for many years. In the specific case of BH, MG, it is a more closed region to receive foreigners. I knew that. They say that Rio de Janeiro and São Paulo are more used in their daily lives to have relationships and live with foreigners. However, here in the case of BH, as it is a city with recent tourism, they do not have this experience, and perhaps they are not so open here in town for foreigners. I knew about this characteristic because I even developed friendships with Brazilians who studied here at the university. But from other country regions such as Porto Alegre, Fortaleza, Espírito Santo, which was a little curious as they were a little more open than the 'Mineiros' themselves. Here, it can be one of the consequences because I have no [...] closer relationships with 'Mineiros' or people outside the university. But that's also it, this inclusion in society here in the city, I don't know if it happens with other towns in Minas, but maybe this social inclusion could be a challenge" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I think it was the language itself, understanding what others were saying outside the school environment. Because at the School, knowing that there is a foreign person, people tend to speak more correctly, more slowly. In everyday life, it was a little more complicated, shopping, making a call" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"[...] My biggest challenge was the logistics of living in a big city [...] I think it was a significant impact for me, getting used to losing a lot of time in traffic [...] having to live far from the university [...] the confusion of people, you weren't used to being in crowds like that [...] A big financial impact, too. Because everything is much more expensive. I think it takes a lot more, but for me, it was the logistics of transporting me, perceiving myself in space, that the giant university too, right? but the city itself, being a gigantic city, was different for me" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# 7.1.1.2 Categories and Subcategories – overview

This section is an overview of all the categories from A to K and the subcategories inside each category. The subcategories have the letter of its category, followed by an ordered number from one to seventy-two. As a result, the categories and subcategories have the number of files attached to each of them and their references. As Table 16 shows on Appendix G.

# 7.2 Survey

The survey was developed chronologically according to the international candidate search for a university and Graduate Program, his/her application, approval, arrival, adjustment period up to when he/she establishes a routine. These steps are divided into three stages: Pre-arrival, settlement, and current – already presented in the Theoretical Basis section. Finally, the answers, tables, and charts of the survey<sup>10</sup> are presented following the same order of the questions. All the respondents that accepted to answer the Survey agreed with the Informed Consent Form, presented as the introduction.

From the fifty-seven answers that were collected only fifty-one were analyzed. Six answers were excluded from the results. The five responses that were deleted came from Brazilian students. The reason why this happened is that the international expression student showed evidence of not making clear the student's origin.

After the first stage of data dissemination, we were asked by emails and messages if a Brazilian Graduate student studying abroad should answer the Survey. One of the messages stated that he only realized that he was not a Brazilian student, based on the questions in the questionnaire. In another case, we received a message that claimed not to have responded since "I am Brazilian," but wished the research success. Until that moment, three Brazilians had answered the questionnaire.

In this case, two other Brazilians responded. Due to the above scenario, we chose to write International (Foreign) Graduate Student - as a title - for the second dissemination of the Survey. When checking the answers, the number of Brazilians had risen to five.

<sup>&</sup>lt;sup>10</sup> The tables and graphs were generated in the SPSS Brazilian software version and are presented in the Latin language. So, the decimal numbers will be presented with a comma instead of a point. However, they will be described in English.

Despite the international and national literature using the term "international student," considering it more polished, it appears that even using it in a context, the term can have different interpretations. In contrast, a Brazilian graduate student who studies part of the Master's or Doctorate at a university abroad can also be considered an international student.

It is noteworthy that this point could only be raised after initiating the data collection process.

The sixth response that was deleted came from an Argentinian student who did not accomplish the essential requirement, which was neither a Master's nor a Ph.D. student at UFMG.

The fifty-three questions of the Survey were subdivided mainly into four sections: Demographic Data, Step 1 – Graduate Program Application – Pre-arrival Stage, Step 2 – UFMG Arrival – Settlement stage, and Step 2.1 – After arrival - Settlement stage. The fifty-one questionnaires that were analyzed are presented in this order, along with the results and interpretation.

# 7.2.1 Demographic Data

This section presents the survey respondents' demographic data: age, gender, nationality, nation income, other citizenships, living abroad, languages, Portuguese level, Celpe-Bras, current student or alumni, course, Graduate Program, beginning of studies, end of studies, and course details.

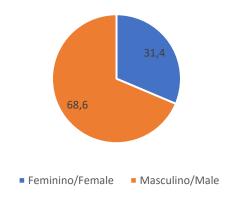
## Age

The data analyzed provides the age average of the 51 respondents, 34.51 with the minimum of 24 years old, and the maximum of 52 years old. The standard deviation is 6.619. These numbers show that the profile of the population that integrates the international graduate student body is primarily young.

# Gender

Regarding gender, Graph 1 and Table 17 - Appendix H shows that the Female group is 31.4% (16). On the other hand, most of the respondents were male, 68.6% (35). The same data can be seen from the graph below, that the male group reported significantly more than the female group.

Graph 1 - Gender

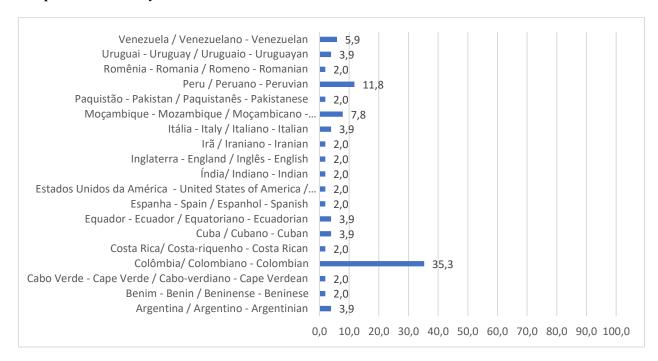


# **Nationality**

Graph 2 and Table 18 – Appendix I show the respondents' Nationality. The Colombian students were most of the respondents, with 35.3% (18). The Peruvian students are in second place with 11.8% (6). The third Nationality is Mozambican, with 7.8% (4). About the Venezuelan students, 5.9% (3). In fifth place with 3.9% (2) are Uruguayan, Italian, Ecuadorian, Cuban, and Argentinian students. Finally, 2% (1) are Romanian, Pakistanis, Iranian, English, Indian, American, Spanish, Costa Rican, Cape Verdean, and Beninese students in fifth place.

The three most significant numbers are from Colombia - Latin America, Peru - South America, and Mozambique - Africa.

Graph 2 - Nationality



Wilson's (1997) model of information behavior shows that other processes are happening between the context of information need and Information-seeking behavior, such as the Intervening variables. In the context of this research, this variable is the Environmental/Situational Barrier, which the author divides into Time, Geography, and National Cultures. Different national cultures may influence the way people of diverse cultures face information acquisition, such as how they transfer innovation and associated information.

The author's reference in studies about people from different cultures is Hofstede (1980). Hofstede (1980) quoted by Wilson (1997, p. 561), who initially proposed and tested four aspects in which cultures might vary.

These are power distance or the acceptance of unequal distribution of power in organizations; uncertainty avoidance, or the extent to which a society feels threatened by uncertain situations and so tends to avoid such situations; individualism-collectivism, which is rather self-explanatory; and masculinity-femininity, or the prevalence of masculine values of materials things, Etc., vs. that of feminine values such as caring for others. Finally, in a later work (Hofstede, 1991), a fifth dimension was added: long-term/ short-term orientation to life.

Even though the interviewees and the survey respondents are from different countries, it was not possible to carry out a more detailed analysis of nationality differences, as this was not the scope of the research and because of the complexity of the topic. However, from the literature review carried out in Step 2 – UMD, it can be stated that there is a shortage of studies related to informational needs in different nationalities, particularly in the context of international students.

Although culture is analyzed from the perspective of international students' information behavior, different authors briefly discuss this issue, such as Sin (2015), when mentioning that the cultural background may affect their information behavior. For Oh and Butler (2019), when the information need is information seeking in libraries and academic settings, some of the factors that may affect it is adjusting to the information systems of host environments; different perspectives and variables, such as specific cultures, nationalities, and previous experiences in home countries. Yoon and Chung (2015, 2017) stated that for specific information needs, the factor(s) that affect(s) Information Behavior are cultural background and lack of knowledge of the new country and/or its culture; length of stay in host countries. For these cases, the – information sources would be 1° friends and family; 2° media (newspapers, Internet); 3° material in one's native language.

#### **Nation Income**

According to the The World Bank (2019), there are four types of income classification.

Economies are currently divided into four income groupings: low, lower-middle, upper-middle, and high. Income is measured using gross national income (GNI) per capita, in U.S. dollars, converted from local currency using the World Bank Atlas method. Estimates of GNI are obtained from economists in World Bank country units; and the size of the population is estimated by World Bank demographers from a variety of sources, including the UN's biennial World Population Prospects (THE WORLD BANK, [201-]).

Based on the nationalities of the fifty-one respondents, we subdivided the nations into three groups: 1° Low income (L) and Lower middle income (LMI) – Benin, Cape Verde, India, Mozambique, and Pakistan. 2° Upper middle income (UPI) – Argentina, Colombia, Costa Rica, Cuba, Equator, England, Peru, and Venezuela. 3° High income (H) – Spain, United States, England, Italy, Romania, and Uruguay.

Table 19 – Appendix J and Graph 15 provides the analysis of these results. There are 15.7% (8) for the 1° group – Low and Lower middle income. In the sequence, the 2° group – Upper middle

Income has the highest percentage of 68.6% (15). The last and 3° group – High income has the same amount as the first with 15.7% (8).

High 15,7

Upper Middle 15,7

Low - Lower Middle 15,7

0,0 10,0 20,0 30,0 40,0 50,0 60,0 70,0 80,0 90,0 100,0

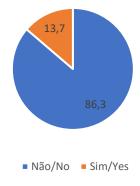
**Graph 3 - Origin Nation Income** 

Source: Research data (2021).

# **Other Citizenship**

It was also investigated if the respondents had other citizenship besides the first one. Graph 4 and Table 20 – Appendix k presents the results. From the chart, it is clear that the most significant demand is 86.3% (44) for "no." On the other hand, only 13.7% (7) is for "yes."

**Graph 4 - Other Citizenship** 

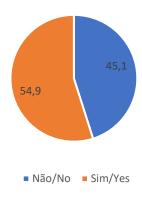


Source: Research data (2021).

#### Other countries the international students have lived before

Graph 5 and Table 21 – Appendix L present the question results if the international student has lived in another country before. There is a slight difference between the numbers of five respondents. Forty-five-point-one percent (23) have not lived in another country besides Brazil. In contrast, 54.9% (28) have already lived in another country besides Brazil.

**Graph 5 - Other Countries the International Students Have Lived Before** 



Source: Research data (2021).

# **Native Language**

It can be seen from the data in Graph 6 and Table 22 – Appendix M that the Spanish language reported significantly more than the other languages with 68.6% (35). In second place is the Portuguese language, with 5.9% (3). The third place with 3.9% (2) is English and Italian. In the fourth and last place with 2% (1), there are Creole, French, Hindi, Pashto, Persian, Romanian, Russian, Shona, and Xitsonga. Latin languages are very expressive in these results since they are present in every rank, represented by Spanish, Portuguese, Italian, and Romanian.

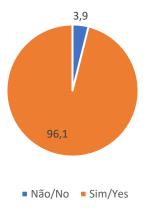
Xitsonga 2,0 Shona 2,0 Russo - Russian 2,0 Romeno - Romanian Português - Portuguese Persa - Persian 2,0 Pashto 2,0 Italiano - Italian 3,9 Inglês - English 3,9 Hindi 2,0 Francês - French 2,0 Espanhol - Spanish 68,6 Crioulo - Crioulo/ Krioulo/Creole 2,0 0,0 10,0 20,0 30,0 40,0 50,0 60,0 70,0 80,0 90,0 100,0

**Graph 6 - Native Language** 

# **Other Languages**

Graph 7 and Table 23 – Appendix N show that most respondents are bilingual since 96.1% (49) said they speak another language. On the contrary, 3.9% (2) answered negatively.

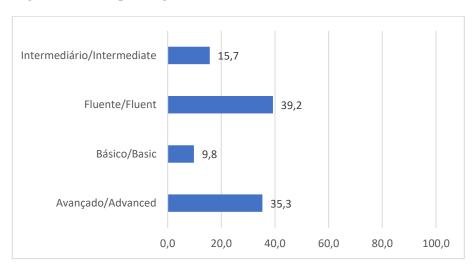
**Graph 7 - Other Languages** 



# Portuguese level - Speaking

Concerning speaking on the Portuguese level, most of the respondents considered themselves Fluent with 39.2% (20). It was followed by a slight difference, followed by the Advanced level with 35.3% (18). The third level is the Intermediate with 15.7% (8). At last, is the Basic level with 9.8% (5). Graph 8 and Table 24 – Appendix O show the outputs.

**Graph 8 - Portuguese Level - Speaking** 



Source: Research data (2021).

# **Portuguese level – Listening**

For this topic, Graph 9 and Table 25 – Appendix P indicate that the Portuguese level for listening is 41.2% (21) for the Fluent and Advanced levels. It is followed by the Intermediate level 11.8% (6). The last level is Basic 5.9% (3).

Intermediário/Intermediate 11,8

Fluente/Fluent 41,2

Básico/Basic 5,9

Avançado/Advanced 41,2

0,0 20,0 40,0 60,0 80,0 100,0

**Graph 9 - Portuguese Level – Listening** 

Source: Research data (2021).

# Portuguese level – Reading

When evaluating the Portuguese level – Reading data, the results for the Fluent and Advanced levels are the same. In this case, it is 41.2% (21). Right after is the Intermediate level with 13.7% (7). Finally, the Basic level is the last with 3.9% (2). Graph 10 and Table 26 – Appendix Q present the results.

Intermediário/Intermediate 13,7

Fluente/Fluent 41,2

Básico/Basic 3,9

Avançado/Advanced 41,2

0,0 20,0 40,0 60,0 80,0 100,0

**Graph 10 - Portuguese Level - Reading** 

# **Portuguese level - Writing**

The last ability, Writing, is the only one among the other three that the highest percentage is for Advanced with 41.2% (20). The second place is Fluent with 25.5% (13), related to thirteen answers. In third place is the Intermediate level with 21.6% (11). Then, at last, is the Basic level with 11.8% (6). Graph 11 and Table 27 – Appendix R provide the outputs.

Based on the data analysis, it is possible to say that Writing is considered the most difficult than speaking, Reading, and Listening. Besides, it takes more time to be developed since it is necessary for a Master's student to write a dissertation and a Ph.D. student a thesis.

Intermediário/Intermediate 21,6

Fluente/Fluent 25,5

Básico/Basic 11,8

Avançado/Advanced 41,2

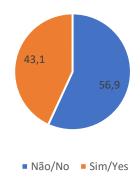
0,0 20,0 40,0 60,0 80,0 100,0

**Graph 11 - Portuguese Level- Writing** 

# Celpe-Bras

These results would present the answers if the Celpe-Bras proficiency test was a requirement or not. Some PEC-PG Public Tenders would request it, but usually, the Graduate Programs would not require it. For this question, 56.9% (29) answered "no," against 43.1% (22) answered "yes." Graph 12 and Table 28 – Appendix S present the results.

**Graph 12 - Celpe-Bras as a Requirement** 

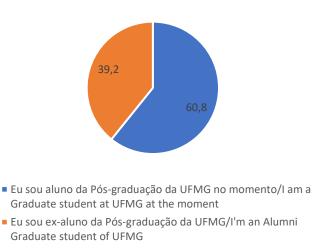


Source: Research data (2021).

## **Current student or Alumni**

Graph 13 and Table 29 – Appendix T show that the number of current international graduate students who answered the Survey is 60.8% (31). Although, international Alumni graduate students are 39.2% (20).

**Graph 13 - Current Student or Alumni** 

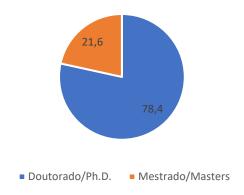


Source: Research data (2021).

## **UFMG** course

Since this research is about international graduate students, it is relevant to check which course they take at UFMG. Graph 14 and Table 30 – Appendix U provide the results, in which 78.4% (40) were Ph.D. students. It is followed by 21.6% (11) were Master's students. Most of the respondents were Ph.D. students.

**Graph 14 - UFMG Course** 



## **UFMG Graduate Program**

This section presents the UFMG Graduate Programs in which the international students participated. Table 31 – Appendix V provides the results of this analysis. In first place is the Graduate Program in "Bioinformatics" and "Information Science" with 7.8% (4). The following Graduate Programs in "Demography," "Chemistry," "Sanitation, Environment, and Water Resources," with 5.9% (3) are second. In third place are "Analysis and Modeling of Environmental Systems," "Animal Science," "Political Science," "Biological Sciences - Physiology and Pharmacology," "Nursing," "Social Communication," "Knowledge Management and Organization," "Technological and Biopharmaceutical Innovation," and "Lyrics: Literary Studies" with 3.9% (2). In third and last place are the Graduate Programs in "Computer Science," "Nuclear Sciences and Techniques," "Ecology, Conservation, and Wildlife Management," "Education - Knowledge and Social Inclusion," "Structural Engineering," "Statistic," "Leisure Studies," "Genetics," "History," "Music," "Neurosciences," "Dentistry," and "Pathology" with 2% (1).

# **Beginning of Studies**

Table 32 – Appendix W presents the data of the beginning of the international students' studies. Each option shows the year and the number 01-representing the first semester or 02 – as the second semester. It is relevant to emphasize that the academic years in Brazil are divided into semesters. The first semester goes from February to July, there is a break, and then the second

semester starts in August and goes up to December. Therefore, the question covered a gap of ten years, starting from "Before 2011" and mentioning every year and semester up to "2020/02."

The first place is 2018/01 with 21.6% (11). It is followed by the second place with 2012/01 and 2017/01 with 9.8% (5). After, is the third-place 2015/01, 2019/01, and 2020/01 with 7.8% (4). In fourth place are 2014/02 and 2016/01with 5.9% (3). In fifth place or as the second last are 2014/01, 2018/02, 2020/02, and Before 2011 with 3.9% (2). Finally, in fifth and last place are 2011/01, 2015/02, 2016/02, 2019/02 with 2% (1).

## **End of Studies**

Table 33 – Appendix X shows the data of the end of the international students' studies. Each item has the year and the number 01-representing the first semester or 02 – as the second semester. As has been mentioned before, the academic years in Brazil are divided into semesters. The first semester goes from February to July, there is a break, and then the second semester starts in August and goes up to December. Hence, the question covered a gap of fifteen years, starting from "Before 2011" and mentioning every year and semester up to "2025/02." In this case, the gap was fifteen years to cover the whole Ph.D. period of who started the studies on 2020/02, according to the "Beginning of the studies" data.

In the first place is 2021/01 15.7% (8). It is followed by second-place 2022/01, with 13.7% (7). After, in third place is 2022/02 with 7.8% (3). In fourth place are 2016/01, 2018/01, and 2024/01, 5.9% (3). In fifth place or the second last are 2013/01, 2019/01, 2020/01, 2020/02, 2021/02, 2023/01, 2023/02 3.9% (2). Finally, in the sixth or last place is 2011/01, 2013/01, 2015/01, 2015/02, 2017/02, 2018/02, 2019/02, 2015/01, and "Before 2011" with 2% (1).

# **UFMG Exchange Program Modality**

In this section, the respondents mentioned the Exchange Program Modality they were doing or had already done. Table 34 – Appendix Y shows the results. Among the options, the first is "Full course of Master's or Ph.D." is 82.4% (42). The second option in the rank is "Part of the Master's or Ph.D." 5.9% (3). Finally, the third option was "Other," which brought out different answers, such as: not described with 3.9% (2); "Co-Tutela UFMG/L' Orientale de Nápoles" 25 (1); "Erasmus+" 2% (1); "In 2017 I started my Master's and finished in 2019, but I got in the Ph.D.

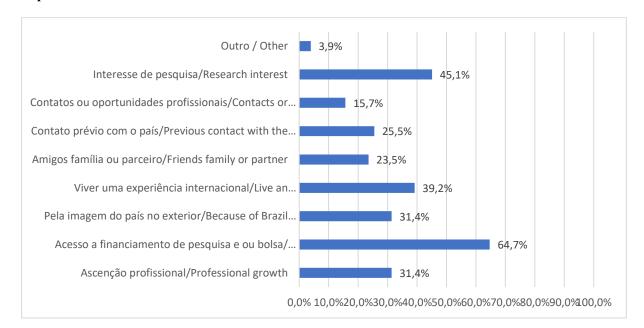
Program right after, which I will finish in February of 2023." 2% (1); "TWAS-CNPq Ph.D. Fellowship" 2% (1).

Based on the results, it is possible to conclude that there are various kinds of Exchange Programs offered by UFMG, which may be favorable to building international research relationships worldwide. The most recent numbers show that DRI has the following agreements "six hundred twelve current legal instruments, 434 partner institutions, 54 countries with which UFMG sustains cooperation and an average time of 162 days until the convention is officially validated (in 2017)" Censo (DRI-UFMG, 2018).

# 7.2.2 Student Journey

# Brazil as a final choice

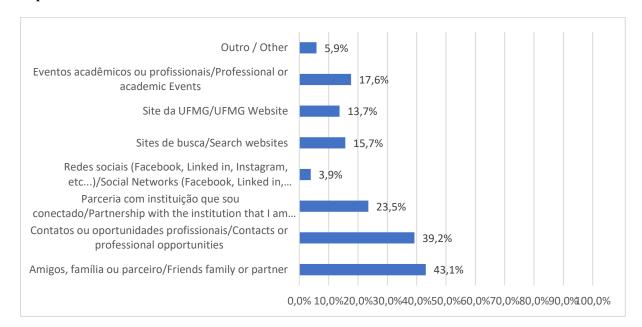
During the Pre-arrival stage, one of the international candidates' steps is choosing a country and a university to live and study. For these questions, the respondents could choose among more than one answer, which was/were the reason(s) why they had chosen Brazil as a place to live and study. Graph 15 and Table 35 – Appendix Z illustrate these results. The first reason is the "Access to a research grant or scholarship" 64.7% (33). It seems to be a requirement for the candidates to decide where to apply for a Graduate Program. In the second place is Research interest 45.1% (23). This reason is an overall process for the Graduate Program field. The third reason is "Live an international experience" 39.2% (20). In fourth place is 31.4% (16) - "Professional growth" and "The image of Brazil abroad." The fifth place is 25.5% (13), "Previous contact with the country." In sixth place with 23.5% (12), "Friends, family or partner" is one of the reasons to choose Brazil. The seventh-place or the second last, with 15.7% (8), is "Contacts or professional opportunity." The last place with 3.9% (2) is "Other reason that had not been mentioned among others."



Graph 15 - Brazil as a Final Choice

## How had the international student ever heard about UFMG?

This question presents the results on Graph 16 and Table 36 – Appendix AA as the first option "Friends, family or partner" 43.1% (22). The second place follows with "Contacts or professional opportunities" 39.2% (20). The third place is "Partnership with the institution that I am connected" with 23.5% (12). After it is the fourth place is "Professional or academic Events" with 17.6% (9). The fifth place is "Search websites" 15.7% (8). The seventh place and second last is "Other reason that had not been mentioned among others" with 5.9% (3). The eighth and last place is "Social Networks (Facebook, Linked In, Instagram, etc.)" with 3.9% (2).



**Graph 16 - How Had the International Student Ever Heard About UFMG?** 

## UFMG as a final choice

This section presents all the possible reasons that the international graduate student chose UFMG to apply for a Graduate Program. For this question, the respondent could choose more than one option. Table 37 - Appendix – BB and Graph 17 provide the analysis results. The first reason is the university's "Positive academic reputation" 68.6% (35).

The second rank is "Possibility to have a scholarship" 45.1% (23). The third position is "Previous contact with the Advisor," 39.2% (20). This situation is a standard procedure in the academic field worldwide; once a national or international candidate wants to apply for a Graduate Program. The fourth reason is "Previous contact with the Graduate Program," with 19.6% (10). The second last and fifth place is "Friends, family or partner" 17.6% (9). Finally, in the sixth and last place is "Other" 2% (1), which means that the reason that the international candidate had chosen UFMG was a different one from the ones mentioned above.

According to Silva and Lima (2013), the international candidate analyzes different perspectives to choose a Graduate Program at a specific university, such as information about the institution, undergraduate courses, enrollment requirements – which are the first impact on services offered in the future. Although this information may be decisive to choosing a university, its reputation, quality, the experience of the faculty, atmosphere of the campus, the image of the

courses offered, the curriculum associated with pedagogical activities, the profile of the student body, among other factors, are also taken into account. As a result, the sum of positive evidence that international candidates may want to access.

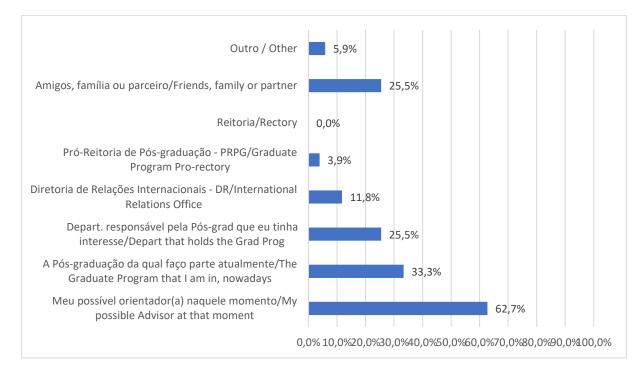
Outro / Other 2,0% Reputação acadêmica positiva/Positive academic 68,6% reputation Amigos, família ou parceiro/Friends, family or partner 17,6% Possibilidade de receber bolsa/Possibility to have a 45,1% scholarship Contato prévio com o Orientador(a)/Previous contact 39,2% with the Advisor Contato prévio com o Programa de Pósgraduação/Previous contact with the Graduate 19,6% Program 0,0% 10,0%20,0%30,0%40,0%50,0%60,0%70,0%80,0%90,0%100,0%

**Graph 17 - UFMG as a Final Choice** 

Source: Research data (2021).

# Contacting UFMG – Step 1 - Pre-arrival Stage

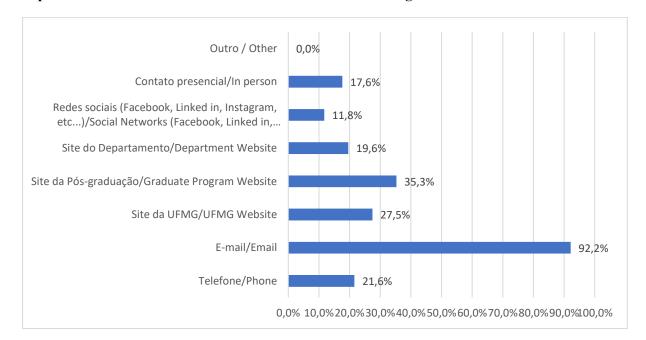
This question is about whom the international candidate had contacted from UFMG to have more information about the Graduate Program Application process. The respondent could mark more than one option. Table 38 – Appendix CC and Graph 18 provide the outputs. The first position is "My possible Advisor at that moment" 62.7% (32). The second rank is "The Graduate Program that I am in, nowadays," 33.3% (17). The options "Department that holds the Graduate Program" and "Friends, family or partner" are in the third position 25.5% (13). After, the third in the rank is "International Relations Office – DRI" 11.8% (6). In fourth place is "Graduate Program Pro-Rectory" 3.9% (3). The fifth place is "Other" 5.9% (3), which means that whom the international candidate had contacted from UFMG was a different option from the ones mentioned above. Finally, the sixth and last place is "Rectory" with no votes.



**Graph 18 - Contacting UFMG - Pre-arrival Stage** 

# **UFMG Communication Channels – Pre-arrival Stage**

This question clarifies the UFMG Communication Channels used by the international candidates to have more information about the Graduate Program application process. The respondents were able to check more than one option. Table 39 - Appendix DD and Graph 19 provide the outputs. The "Email" is in the first place 92.2% (47). The "Graduate Program Website followed it" is 35.3% (18) second position. The "UFMG Website" was followed in the third 27.5% (14). The "Phone" is in fourth 21.6% (11). Next is the "Department Website" 19.6% (10). The option "In person" is 17.6% (9). The second last and seventh is "Social Networks (Facebook, Linked In, Instagram, etc.)" – 11.8% (6). The last one with no answers was "Other."



**Graph 19 – UFMG Communication Channels - Pre-arrival Stage** 

# 7.2.2.1 <u>Step 1 – Graduate Program Application – Pre-arrival Stage</u>

# **UFMG Communication Channel Position – Pre-arrival Stage**

In this section, the respondents evaluated the importance of each UFMG Communication Channel – before arrival or in the Pre-arrival Stage. These Communication Channels are disseminated through the UFMG website. The respondents could grade each communication channel from Zero (not important at all) to 10 (very important). Table 40 - Appendix EE shows the results. The most recognized one in the first place is "Email" with 9.2. The second most graded is "Phone," with 5.1. The "Academic Social Networks (e.g., Research Gate, etc.)" is in third place – 4.4. It is followed by "Facebook" in fourth, with a grade of 3.4. The "Linked In" is in fifth with 2.9. In the sixth, the next ones are "Instagram" and "YouTube" with 2.8. The "Twitter" is in seventh – 2.7. In eighth are "Tumblr" and "Medium" with 2.1. The last one is Flickr with grade 2. Table 41 – Appendix EE presents the outputs.

# **UFMG Official Channels Evaluation – Information Content about Graduate Program Application Process**

For this question the respondents could evaluate the information available on the official channels of UFMG about the Graduate Program application process. They were able to grade from zero (awful) to ten (excellent). The average was 7,92. In the following question forty students justified their grade. The positive comments were diverse: "Because it was simple", "Very good", "Excellent communication", "Because the communication was great", "All necessary information is accessible".

Other students detailed their point of view: "Whenever I requested an information, I got a reply in time", "All the information was available, and it was easy to get in touch", "Very organized and schematic, easily accessible", "Detailed information", "Because the content presents is clear", "The information provided was always consistent and met the established deadlines initially", "It was a very important guide for me".

Some answers emphasized other arguments or departments involved in the process: "Application Public Tenders are available on several UFMG websites", "Because I managed to obtain useful and valuable information after contacting DRI-UFMG via email", "After the master's degree, I decided to apply for the Ph.D., and the website is very transparent with the application process", "I found all the information on the Lit Graduate Program website", "Because in the program in which I'm inserted, all kinds of information are available."

There were replies that pointed out some issues that the students had gone through, and the effort to have the information needed. "Information on official channels is incomplete. For example, the Graduate Program course in Bioinformatics in English is incomplete. Luckily, I understood the information in Portuguese and had the support of my advisor," "I found all the information I needed, but I had to translate from Portuguese some of it", "The UFMG website can be a little confusing at first, but the Demography Program does a great job of explaining how the application process works."

Other explanations gave light to problems they overcame somehow. "The site needs to be more up-to-date. It has very old information", "Outdated site. Delay in replying to email", "I think the information is good, but I think they need more dissemination", "At the beginning, I felt uninformed and confused, with little information and guidance that was only the responsibility of a volunteer student in many cases", "Confused explanations about the process", "Lack of

information on procedures for foreigners (degree validation, consular document stamps, etc.)", "There is still a need for more organization about information from research laboratories", "It is a few years ago now, I remember the process was not too complex, but I needed help from my Brazilian wife to understand everything", "I have never seen an official article or channel promoting UFMG or Graduate Programs", "Because I had little help from these channels", "All the information was available, but it was difficult to get some written test books".

Callahan (2006) states that some countries have the uniqueness of their language, but universities localized in them are interested in attracting and retaining international students. In this case, the author emphasizes the need to develop websites in English "to facilitate academic exchange of ideas and create greater interest in the academic environment" (2006, p. 240-241). He justifies his argument on the need for international visibility since universities are exposed to the competition for students and an image of an internationalized environment. Besides that, UFMG has planned to "develop multilingual websites and produce institutional dissemination material in a foreign language" (PDI 2018-2023, 2018, p.180).

There were some neutral comments, such as: "It's not perfect", "It's enough. I don't have any complaints", "I chose a neutral grade because I didn't consult the official UFMG channels, but the information provided by Scale Program", "I had no problems during the selection process", "I used very little. I'm a Ph.D. student in the PEC-PG Program", "Because when I went there, communication on social media was not very important. However, currently, UFMG has everything".

# UFMG Official Channels Evaluation – Information Content about the Student Visa Process

For this question the respondents evaluated the information available on UFMG official channels about the student visa process. They were able to grade from zero (awful) to ten (excellent). The average was 5.9. There was positive feedback about this topic, such as: "Very good", "It has good information", "Precise information", "Content quality", "It is very efficient, easy to respond, very clear when performing management", "Before coming to Brazil, I received an email with the detailed steps for the visa, now I don't remember if it was from the department or DRI, or the OEA, but in the first week, DRI explained in detail the visa process. So, I didn't look for information on the web".

Concerning to UFMG departments, there were some specific explanations: "They gave the necessary information at the Graduate Program Help Desk", "This part of the information is clear on the Graduate Program website", "I did not get much help from UFMG, but the Demography Department did a great job, helping me with all the steps to get a student visa", "DRI's follow-up during my undergraduate and Ph.D. exchange program was perfect", "The official channels were not social networks in 2009, but all the administrative staff at UFMG helped me when I needed a visa extension", "I always had a reply on time and documents on time".

A few students mentioned that this type of information does not exist on UFMG communication channels. There were some problems reported and how the students figured out a solution. In some cases, they couldn't find it, like these answers illustrate: "At the time, I did not see anything about visas on the UFMG page. I had to contact the consulate", "The information is sometimes confusing", "I think that the information is available when you ask but not easily available", "It should be more precise in terms of timing and guides in the adaptation process", "DRI did not resolve doubts about this. The best information I found was from other foreigners who had already completed the procedures. When I got to the Graduate Program, it did not help much. They did not know the procedures. Nowadays it has improved". Other students went through the same issue, one was helped by the advisor and another one by "other foreign students who provided this information". "This information was not as clear as other information".

In some cases, the students expected orientation about it. Here are some of their comments: "I did not receive any guidance for the process of obtaining a visa", "Because I had never had access to this information on the page of the Graduate Program I am inserted", "They didn't present all the documents I needed and how to get them".

There were explanations with neutral opinions, such as "I do not know about the mentioned process", "I think it can be improved. The information can be more in-depth. So, they can solve all the doubts of future students", "The information is good, but the access is terrible", "Because issues about the Federal Police are always complex", "Because UFMG provided the necessary documentation for my procedures. Usually, the entire process was carried out in other institutions with clearer and simpler information".

Some students reported different ways to obtain the visa. "Because I had already seen it and UFMG did not provide information", "I didn't need to ask UFMG about the student visa process. I had already resolved it before", "Actually, I never looked for it, as I had already had a permanent

visa since before studying at UFMG", "I did not use the web to obtain this information", "The process of obtaining the student visa was carried out with information provided by the embassy", "The visa process was completely helped by my friends and the Federal Police website. UFMG had no help with this", "Obtained the visa through the agreement with the OEA. The acceptance letter was the most important document for the application", "Because I got the visa information at the Brazilian consulate".

# **UFMG Communication Channels – Information Content Quality – Pre-arrival stage**

Table 41 - Appendix FF provides the information content quality results that are available through UFMG Communication Channels. The respondents evaluated the information content grading on a scale from zero (awful) to ten (excellent). The highest grade was "Enrollment process at UFMG and related academic matters," with an average of 6.2. In second is "Student visa and related matters (visa, national foreign registration, CPF, Federal Police, etc.)" 5.1. In third is "Support groups" with 5. In fourth is "Contact with groups of international students" with 4.8. In fifth is "Transportation (Buses, subway, and apps)" – 4.5. In sixth is "Housing-places for living" – 4.1. The last ones in the seventh position are "Living expenses" "Health Insurance (Public Health System and Private Health Insurance)" with an average of 4.

Yoon and Chung (2017) also corroborate the importance of international students' daily information needs. The authors' study about the Pre-arrival stage stated the type of information sought by the international students, such as housing; how to fill out documents to enter the U.S.; how to obtain a drivers' license and to buy a vehicle; school information for a child; academic-related information needs; information on the universities and programs that one could apply; and courses that could be taken during the first semester.

# UFMG Communication Channels – Information Content Quality – Pre-arrival stage – Improvement Suggestions

The respondents gave their opinion about what could be improved regarding the information available on UFMG official channels about the preparation of the student's arrival.

A couple affirmations: "Information is provided upon arrival in the country. It would be great if they were provided previously", "Information Content & Service".

A couple students suggested more information dissemination and one of them emphasized, "The university has many interesting programs and aids". Another student corroborated the affirmation, "Dissemination through the channels of private departments. This information may be available on official channels throughout UFMG, but it is more common for students to spend more time in contact with the channels of the department or faculty where they are interested". Exploring a similar idea, "Create a channel on the main social networks for interaction with potential stakeholders", "Maybe have YouTube videos or maps where information about the rent, transport, and other topics, is better explained".

Worrall, Ballantyne, and Kendall (2019) stated their point of view about information in the international students' context. ICTs and those who help the students are considered supportive when this aid is directed to finding academic and everyday valuable information for studies. On the contrary, it "can be difficult if international students miss specific steps or information sources that would help, or lack access when available only via a specific ICT" (WORRALL; BALLANTYNE; KENDALL, 2019, p. 310).

There were recommendations concerning guidance on bureaucratical procedures, such as "Visa, foreigner national registration, CPF, Federal Police". Another student added "bank account". At this time, respondents focused on the Graduate Program "I think that Graduate Program lacks more information", "To have a document that explains how to carry out all the migration procedures, which is shared with us international students, since the secretaries of the programs do not have that information", "I think the IGC and modelling and analysis program websites need substantial refurbishment, including streamlined online options for most processes. I do not want to download, edit and sign PDFs all the time".

Some students were more direct about department roles: "I did not know about the existence of the international relations Office. So basically, I did not have information about the process", "I think there is a need for an international office at the University, who may guide the perspective international students to know as much as possible about the university registration and accommodation arrangement. This is too tough to get an apartment on rent and there is too much bureaucracy in renting process. At time you don't know any reference in Brazil, and they don't entertain you if you couldn't present to references / granters. The University must have a mechanism to look after the matter like these", "International students arriving directly at Graduate Programs could be directed to DRI, where more information is provided", "Clearer information,

opportunity to ask specific cases, more efficient DRI (I've never been able to do anything for DRI), someone who can report on procedures at the Federal Police, type of visa for each scholarship, etc.", "I think my experience for the incredible work of the demography department. I had little contact with other parts of UFMG while preparing for my arrival. Well, maybe the DRI can take a more active role in this regard", "So far, I'm aware of these aids from UFMG, so I think it's necessary to improve the control or registration of international students to be able to disseminate this information".

A few students highlighted the importance on finding information about the city, cost of living and housing. "I was very lost on where I was going to go, thinking I would stay in the housing, but it turned out that graduate students cannot stay in the student housing", "More information about the city, where to live, prices, cost of living in general".

A few students emphasized personal experiences: "Each experience is very particular. I had a good experience. I think the only thing that wasn't very comfortable was that I met the advisor about three months later", "Cultural mediation service on arrival", "I did not actually use these channels. I cannot give an opinion", "The information on the UFMG page is good, there are always doubts, but I think it is correct", "In fact, I did not even know that UFMG facilitated this information. We migrants know that conditions outside a country will always be difficult and, therefore, we have made it into our minds that we must always be active in the search for information on our account".

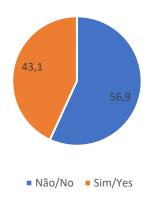
One of the main principles of the behavioral model of Wilson (1997) and Elli (1989) is an active search, which is defined as "where an individual actively seeks out information." As described by one of the respondents above, the decision to move abroad to study directs the international candidate to be active when searching for information. In the Pre-arrival and Settlement stage, the most frequent active search. Through time, in the Current stage, when the routine is established, and the local language is not so challenging, the ongoing search takes place: "where active searching has already established the basic framework of knowledge, ideas, beliefs or values, but where the occasional continuing search is carried out to update or expand one's framework."

# 7.2.2.2 <u>Step 2 – UFMG Arrival – Settlement stage</u>

# **UFMG Host Event**

These results refer to whether there was a UFMG Host Event or not. Table 42 - Appendix GG and Graph 20 show the outputs. In this case, 56.9% (29) marked "No," and 43.1% (22) "Yes."

**Graph 20 - UFMG Host Event** 

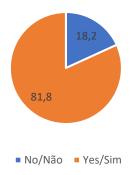


Source: Research data (2021).

# **UFMG Host Event Participation**

Table 43 – Appendix HH and Graph 21 present the results about the participation at the UFMG Host Event. In this case, respondents could reply "Yes" or "No." Eighteen-point-2 percent (4) answered "No." On the other hand, 81.8% (18) replied "Yes." Besides that, there were blank answers – 56.9% (29).

**Graph 21 - UFMG Host Event Participation** 



#### **UFMG Host Event Evaluation**

Those who had gone to the UFMG Host Event had a chance to evaluate the information available at this event. They could grade from zero (awful) to ten (excellent). The final average grade was 9.3.

A few students had positive feedback about the event: "good", "The information was adequate", "Because it was a help to get to know the university".

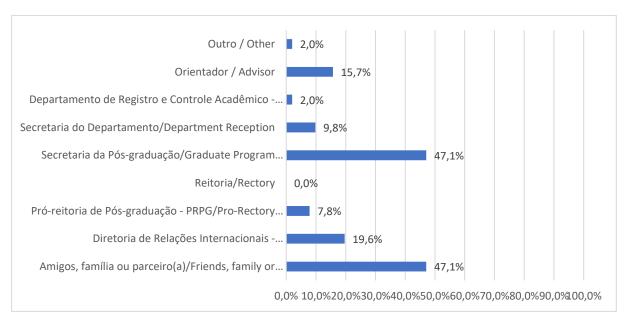
A couple students emphasized that the information was quite complete. "It was very objective and essential information for starting at UFMG. It was quite complete". Besides that, the integration of students was a highlight. "It clarified a lot, and the best part is that it had the participation of international students as speakers and in the organization", "Because there is a buddy system that makes you feel at home".

There were events organized by the Graduate Programs. "The Demography Department always takes an initial class at the beginning of the year, in addition to taking a short course before starting the master's degree. I felt very well prepared and informed after participating in these events", "It was the program welcome event, not UFMG, and there was probably too much information and not enough time for meeting other students".

Another issue was pointed out, besides the amount of information "At the end of the event, there was no further information or monitoring meetings".

# **UFMG Host – Settlement stage**

Table 44 – Appendix II and Graph 22 provide the results of the question that wondered whom the international student looked for to host him/her after the arrival. The respondents had the option to mark more than one option. The first option were "Friends, family or partner" and "Graduate Program Reception" 47.1% (24). The second "International Relations Office – DRI" is followed by 19.6% (10). In third is "Advisor" – 15.7% (8). The fourth is "Department Reception," with 9.8% (5). The fifth is "Pro-Rectory Office – PRPG" – 7.8% (4). The second last and sixth is "Academic Registration and Control Department – DRCA" and "Other" with two percent 2% (1). The last and seventh is "Rectory," with no replies.



**Graph 22 - UFMG Hostess - Settlement Stage** 

Source: Research data (2021).

### **UFMG Communication Channels – Settlement stage**

Table 45 – Appendix JJ shows the evaluation of the UFMG Communication Channels importance during the Settlement stage. The respondents could grade from zero (not important at all) to 10 (very important). The first rank is "Email," with an average of 8.8. The second is "Phone" 5.9. The third is "Facebook" – 5.1. The third is "Academic Social Networks (e.g., Research Gate, etc.)" – 4.1. In fourth is "Instagram" – 3.9. In fifth is "YouTube," with 3.5. The sixth is "Linked

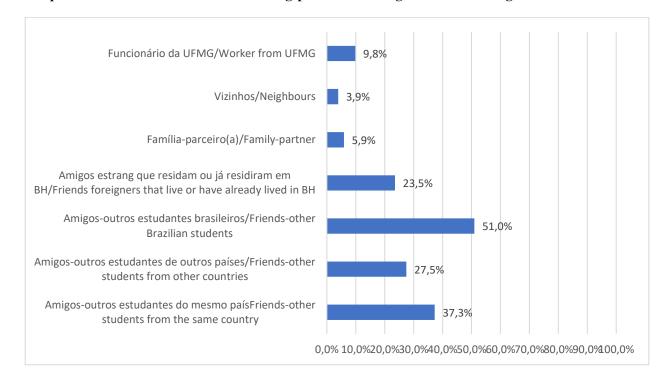
In," with 3.2. The seventh is "Twitter" with 3.1. The second last, and eighth are "Tumblr" and "Medium" – an average of 2.4. The ninth in the rank is "Flickr," with 2.3.

# **UFMG Information Content Quality – Settlement stage**

Table 46 – Appendix KK presents the results related to the importance of each kind of information listed during the Settlement stage. Again, the respondents were able to grade from zero (not important at all) to ten (very important). The first rank is "Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.)," an average of 8.4. The second is "Banks, ATMs and Exchange Agencies" with 8.1. The third is "DRI, Biblioteca, Reitoria, etc. /University and academic matters (DRI, Library, Reitoria, etc.)" – 7.8. The fourth is "Health Services (Free Health Care branches and Hospitals)" and "Transportation (Buses, subway, and apps)" 7.7. The fifth one is "Housing-places for living" with 7.4. Next in sixth is "Supermarkets" – 6.9. The seventh is "Routes-names of streets" six-point-eight. The eighth is "Events, Fairs and Festivals" and "Sports-Leisure-Recreational places" with 6.3 — the second last and ninth in Bars, Restaurants, and Coffee Shops – 5.9. The last and tenth is Cinema-Theater 5.7.

# **Information Sources – Housing-places for living - Settlement stage**

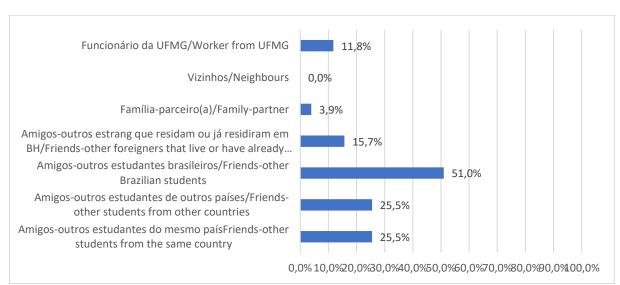
This section shows the results related to which information source the international students used to find information about "Housing-places for living." Table 47 – Appendix LL and Graph 23 present the outputs. The respondents could mark more than one option. The most used information source for this topic is "Friends-other Brazilian students," with 51% (26). It is followed by "Friends-other students from the same country" – 37.3% (19). The third rank is "Friends-other students from other countries" – 27.5% (14). The fourth is "Friends- foreigners that live or have already lived in BH" – 23.5% (12). The fifth is "Worker from UFMG" with 9.8% (5). The sixth is Family-partner – 5.9% (3). The seventh is "Neighbors," with 3.9% (2).



Graph 23 - Information Sources - Housing-places for Living - Settlement Stage

# Information Sources – University and academic matters (DRI, Library, Rectory, etc.) - Settlement stage

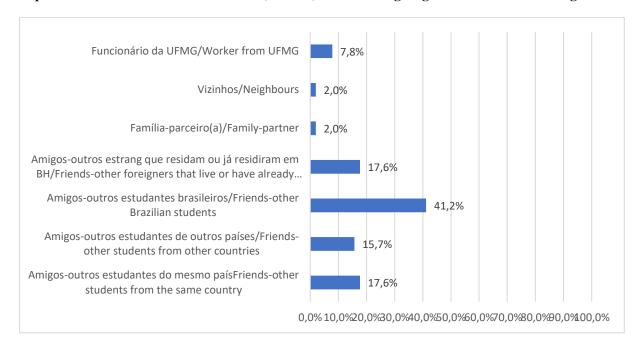
Table 48 – Appendix MM and Graph 24 provide the outputs about which information source the respondents used to find information related to "University and academic matters (DRI, Library, Rectory, etc.)". It was possible to check more than one item. The first option is "Friends-other Brazilian students," with 51% (26). The second rank is "Friends-other students from the same country" and "Friends-other students from other countries" – 25.5% (13). The third is "Friends-other foreigners that live or have already lived in BH" – 15.7% (8). The next one is "Worker from UFMG" – 11.8% (6). The fifth is "Family-partner" – 3.9% (2). Finally, the last one with no answers is "Neighbors."



Graph 24 - Information Sources - University and Academic Matters (DRI, Library, Rectory, etc.) - Settlement Stage

#### Information Sources – Banks, ATMs and Exchange Agencies

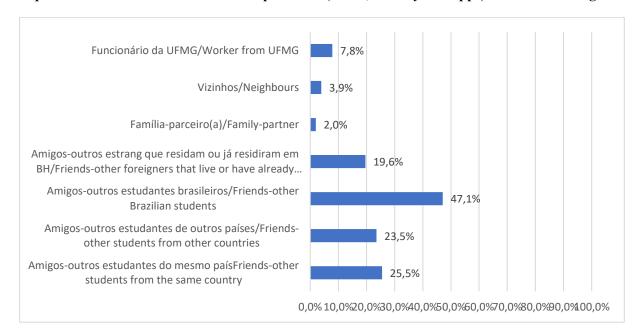
This section shows the outputs of which information source the international students used to know more about "Banks, ATMs, and Exchange Agencies." The respondents could mark more than one option. Table 49 – Appendix NN and Graph 25 illustrate results. The first option is Friends-other Brazilian students with 41.2% (21). It is followed by "Friends-other students from the same country" and "Friends-other foreigners that live or have already lived in BH," 17.6% (9). The next is "Friends-other students from other countries" – 15.7% (8). The fourth is "Worker from UFMG" – 7.8% (4). The fifth is "Family-partner" and "Neighbors" with 2% (1).



Graph 25 - Information Sources - Banks, ATMs, and Exchange Agencies - Settlement Stage

# Information Sources - Transportation (Buses, subway and apps) - Settlement stage

Table 50 – Appendix OO and Graph 26 provide the results of which information source the respondents chose to find information about Transportation (Buses, subway, and apps). It was possible to check more than one item. The first one is "Friends-other Brazilian students" with 41.7% (24). The second is "Friends-other students from the same country" 25.5% (13). The third is "Friends-other students from other countries" 23.5% (12). The fourth is "Friends-other foreigners that live or have already lived in BH" – 19.6% (10). The fifth is "Worker from UFMG" – 7.8% (4). The sixth is "Neighbors" – 3.9% (2). The last one is "Family-partner" – 2% (1).



Graph 26 - Information Sources - Transportation (Buses, subway and apps) - Settlement Stage

# Information Sources – Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.) - Settlement stage

This section presents the outputs of which information source the international students would choose to find information about Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.). Table 51 – Appendix PP and Graph 27 show the outputs. The first one is "Friends-other Brazilian students," 47.1% (24). The second is "Friends-other students from the same country" – 25.5% (13). The third is "Friends-other students from other countries" – 23.5% (12). Fourth is "Friends-other foreigners that live or have already lived in BH" – 19.6% (10). The fifth is "Worker from UFMG," 7.8% (4). Sixth is "Neighbors" – 3.9% (2). The last one is "Family-partner" with 2% (1).

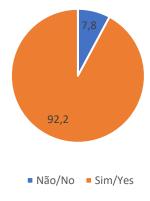
Funcionário da UFMG/Worker from UFMG 7,8% Vizinhos/Neighbours 3,9% Família-parceiro(a)/Family-partner 2,0% Amigos-outros estrang que residam ou já residiram em 19,6% BH/Friends-other foreigners that live or have already... Amigos-outros estudantes brasileiros/Friends-other 47,1% Brazilian students Amigos-outros estudantes de outros países/Friends-23,5% other students from other countries Amigos-outros estudantes do mesmo paísFriends-other 25,5% students from the same country 0,0% 10,0% 20,0% 30,0% 40,0% 50,0% 60,0% 70,0% 80,0% 90,0% 10,0%

Graph 27 - Information Sources - Bureaucratic Procedures and Documentation (Visa, National Foreign Registration, CPF, Federal Police, etc.)] - Settlement Stage

# Scholarship benefit

Graph 28 and Table 52 – Appendix QQ illustrate the number of international students receiving or used to receive a scholarship. So, for those who answered "Yes," there was the majority with 92.2% (47). For those who answered "No," there were 7.8% (4).

Graph 28 - Scholarship Benefit



Source: Research data (2021).

# **Scholarship Type**

Different educational programs finance the scholarship of international graduate students. Some of these programs are mentioned in this section. Table 53 – Appendix RR shows the results. In first place is "Capes" 51% (26). The second rank is "CNPQ," 33.3% (17). The next one on the third is "Other," 7.8% (4). The fourth is "FAPEMIG," 3.9% (2). Finally, the fifth and last ones in the rank are "Banco Santander" and "Capes and after CNPQ" – 2% (1).

# 7.2.2.3 Step 2.1 – After arrival - Settlement stage

#### **First Information Source choice**

Table 54 - Appendix SS and Graph 29 provide the results related to when the international student needed information about UFMG or his/her Graduate Program, whom did he/she look for first. Most respondents answered "Reception of my Graduate Program - telephone or email" 33.3% (17). The second option is "My advisor" – 27.5% (14). The third is "A Brazilian friend from the Master's or the Ph.D." – 25.5% (13). The fourth option is "Foreigner friend from the Master's or Ph.D." 9.8% (5). The fifth and last possibility is "Web site of my Graduate Program" – 3.9% (2).



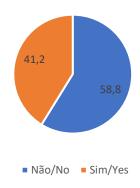
Graph 29 - First Information Source Choice - After Arrival - Settlement Stage

Source: Research data (2021).

# **Health Matters - Settlement stage**

Table 55 – Appendix TT and Graph 30 clarify if the international student had had any health matter since his/her arrival. In this case, most of the answers were for "No" 58.8% (30). On the other hand, 41.2% (21) replied "Yes."

**Graph 30 - Health Matters - Settlement Stage** 



Source: Research data (2021).

The 21 students that had replied about their health problem, explained what had occurred. Two of them had Dengue, and one was Dengue Hemorrhagic. There were two students with Stomachache, and one followed by diarrhea. Among the issues there was travel stress and headaches. Another student reported Sinusitis. The same student described Mental Health, infections, and gynecological problems. There was one student with fever. Two with the flu; one followed by an ear infection and the other by digestion problems. One student reported respiratory problems, and other with an intense sore throat. Other student also had fever and was in pain. In addition to that he/she needed to go through surgery. There was a reply about an Arteriovenous Malformation Surgery procedure.

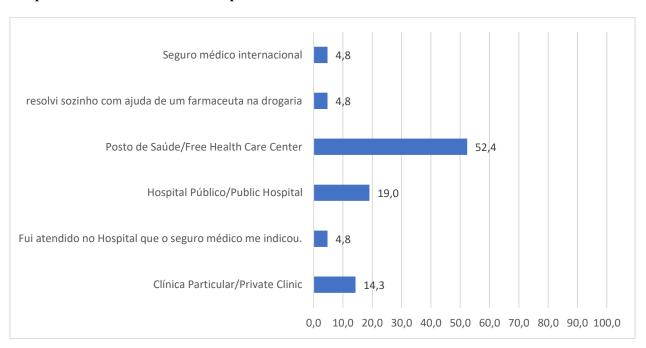
One respondent replied that six months after arriving in Brazil, he/she had a kidney stone problem. Another student had Gallbladder Calculus. There was also reported that someone had nodules detected in her/his thyroid.

A student slipped on a street and injured the left shoulder and wrist. Someone needed medical appointments but did not mention the reason. There was a respondent with corneal problems. One student reported that he/she is HIV positive.

As a result of a systematic literature review (SLR) aiming to examine "information-seeking trends among international students while using social media." (HAMID *et al.*, 2016, p. 643). The third most sought topic by the international students was Health-related - Health insurance, climate, health services, living services.

#### **Health Matters – Backup**

Table 56 – Appendix UU and Graph 31 provide the outputs related to whom the international student that had had the health problem went for at first, to be helped. Fifty-two-point-four (11) people looked for the "Free Health Care Center." In second is "Public Hospital," 19% (4). It is followed by third place, "Private Clinic," 14.3% (3). The fourth is "Other" which are: "I was attended at the hospital that the Health Insurance had recommended me," "I sort it out on my own with the help of a Pharmacist at the Drugstore" and "International Health Insurance" – 4.8% (1) for each item. Only 21 students answered. There were 30 blank answers.



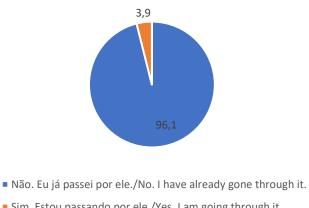
**Graph 31 - Health Matters - Backup** 

Source: Research data (2021).

# Settlement stage in BH - MG – BR

Table 57 - Appendix VV and Graph 32 show the outputs related to the moment that the respondent was, if he/she was going through the adjustment period or if he/she had already gone through it. Most of the international students who answered the survey had already gone through it. So, they answered "No" 96.1% (49). On the contrary, only 3.9% (2) replied "Yes," meaning they were going through the adjustment period.

Graph 32 - Settlement Stage in BH - MG - BR

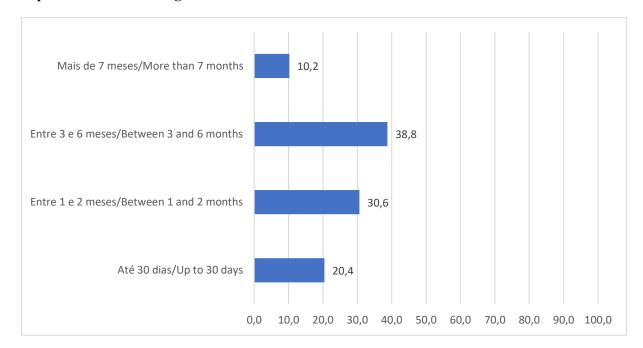


- Sim. Estou passando por ele./Yes. I am going through it.

Source: Research data (2021).

# Settlement stage in BH - MG - BR - Duration

This section presents the outputs about how much time the international student considers the adjustment period or Settlement stage. In this case, Table 58 - Appendix WW and Graph 33 present the results. First, most respondents consider it "Between 3 and 6 months" 38.8% (19). It is followed by "Between 1 and 2 months" – 30.6% (15). Then comes "Up to 30 days" 20.4% (10). The last option is "More than seven months," with 10.2% (5).



Graph 33 - Settlement Stage in BH - MG - BR - Duration

# The Main challenge

For this question the students described their main challenge during the Settlement stage. There were forty-nine relevant answers among the fifty-one survey respondents. Eighteen students answered that language (Portuguese) was their major challenge. In some cases, it was followed by the interaction with people. "Learn Portuguese, understand people, and let people understand me", "Initially the language, but later it was like integrating with the students from Minas Gerais, I find a great closure", "Learn the Portuguese language in order to carry out academic activities. Also, understand Brazilian culture", "Getting closer to people's language and ways". Along with the language, a couple students also highlighted the lack of money and the COVID-19 Pandemic, such as the examples: "Language, lack of money", "Language and the pandemic".

In particular studies about international students, some authors stressed the language barrier affecting information behavior in certain circumstances. For Mehra and Bilal (2013), when the international students have a website interaction. Chung and Yoon (2015, 2017) when the students have as information source: 1° friends and family; 2° media (newspapers, Internet); 3° material in one's native language. Sin (2015) described language as a barrier in an international student's daily life. Worrall, Ballantyne, and Kendall (2019) pointed out that language was not seen as a barrier

by the study's participants. However, lacking knowledge of specific words and phrases can cause communication issues and culture shock.

Besides the daily information needs and the necessity to learn the local language, the culture is a factor in the adaptation process. About this topic, Worrall, Ballantyne, and Kendall (2019) say that when the international student learns about the new culture, it leads him/her to a stronger feeling of "fitting in" the actual community. However, culture may be seen as an obstacle when the student does not know details about the new culture, which may direct him/her to confusion when using ICTs and in the process of information sharing.

The second issue reported by seven students was housing. Actually, describing the details to accomplish it. "To get suitable accommodation - Renting an apartment was a huge challenge - It was really tough to find an apartment, complete the documentation, security deposit and guarantors", "Gather all the requirements for renting an apartment, because they require a guarantor. Other students emphasized housing with other topics: "Find a place to live where I felt welcome, find suitable places to buy food, food transition", "Find rent with three Bs (Bão, bonito e barato - good, beautiful and cheap) and make friends", "Find a home to live in and the theme of transport in Belo Horizonte".

There were seven reports about interaction and adaptation in Brazilian culture. "Finding the right group of friends and my current group of friends", "Learn cultural habits", "Make Brazilian friends", "The biggest challenge was establishing a network of friends and contacts from scratch", "Minas Gerais people are very good people... it was easy to adapt...".

Another issue that was highlighted by seven students is the Brazilian bureaucracy involving documents and procedures in a diverse of circumstances. "Be able to go through migration procedures", "Get a student visa (I needed a particular procedure at the consulate)", "Federal Police", "To get all the documents done for the resident permit", "know the educational system", "Information on disciplines and departments is not standardised - each has their own website, forms, procedures, lesson plans. Evaluations are not clearly written with evaluation criteria, resources, format, deadline, etc.". A student associated a type of behavior to the bureaucracy: "Bureaucracy and machismo".

The logistics to move around Belo Horizonte and UFMG were pointed out by five respondents. "The university is enormous. So, I got lost. Take a bus. Know the bus stops",

"Memorize the bus routes that take you to the city center", "Not knowing the city", "Walking through the center of Belo Horizonte".

For Yoon and Chung (2017), similar daily information needs to the UFMG students were considered dominant for the international students to settle down in the U.S. Such as internet, electricity, and phone connections; how to open a bank account, and to buy a vehicle, "neighborhood information for housing, local geographical information (street/community names), cooking information, medical information, and information regarding financial support." (YOON; CHUNG, 2017, p. 7)

Hamid *et al.* (2016) have as a result of the SLR about the information seeking tendencies among international students while using social media. The fourth topic was "sociocultural related - personal adjustment, social adjustment, religion differences, cultural adjustment, relationship of international students and teachers, food, lifestyle, language barrier, English difficulties, loneliness, acculturation stress, friendship and interaction" (HAMID *et al.*, 2016, p. 651-653)

The distance from the family, and beloved ones was described by three students. "The language and staying away from my family and friends", "Live far from the family", "Living far from my family (wife and children)".

There were specific reports, such as: "The lack of an emotional and affective support structure, especially during difficult times", "I didn't have any major problems. My adaptation was smooth", "I didn't have any major problems. My adaptation was smooth", "I didn't have any major problems. My adaptation was smooth".

The study developed by Bello and Guerra (2018) investigated the association between coping strategies and reinforcement of values and subjective well-being of Latin American graduate students in Brazil. The experience of moving to another country in the face of an unknown culture can promote stressful situations, whose students will need to adapt adequately to balance their well-being with personal, educational, and professional goals. Furthermore, entering the university itself can be stressful for students (BELLO; GUERRA, 2018).

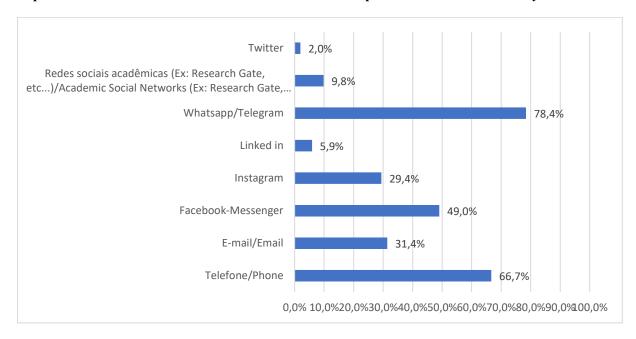
# **Contact Frequency with other people**

Table 59 – Appendix XX shows the results of how frequently the international students used to keep in touch with "People from your home country," "People from another country," and "Brazilians." The respondents could grade from one to five. Although, each number would

correspond to a level of frequency: 1-never; 2-rarely; 3-sometimes; 4-many times; 5-always. The results showed that the most important contact was with "Brazilians," with an average of 4.4. It was followed by "People from your country" with 4.2. In the last place was "People from another country" with an average of 3.5.

# **Communication Channels – Contact with People from the home Country**

Table 60 – Appendix YY and Graph 34 provide the results of which the international students used communication Channels to keep in touch with "People from your home country." The respondents could check more than one item. The most used is "WhatsApp/Telegram" 78.4% (40). The second is "Phone" 66.7% (34). The third is "Facebook-Messenger," 49% (25). The fourth is "Email," 31.4% (16). The fifth is "Instagram," with 29.4% (15). The sixth is "Academic Social Networks (Ex: Research Gate, etc.)" 9.8% (5). The seventh and second last is "Linked In," 5.9% (3). The eighth and last one is "Twitter," 2% (1).



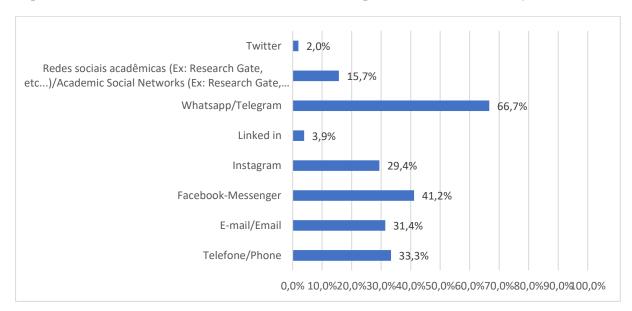
**Graph 34 - Communication Channels – Contact with People from the Home Country** 

Source: Research data (2021).

#### **Communication Channels – Contact with People from Another Country**

Table 61 – Appendix ZZ and Graph 35 present the international students' communication channels to contact "People from another country." The respondents could mark more than one

option. Such as the question beforehand, the most used is "WhatsApp/Telegram," 66.7% (34). The second in the rank is "Facebook-Messenger" 41.2% (21). The third is "Phone" 33.3% (17). The fourth is "E-mail" -31.4% (16). The fifth is "Instagram" -29.4% (15). The sixth is "Academic Social Networks (Ex: Research Gate, etc.)" -15.7% (8). The second last and seventh is "Linked In" -3.9% (2). Finally, the last and eighth are "Twitter" -2%.

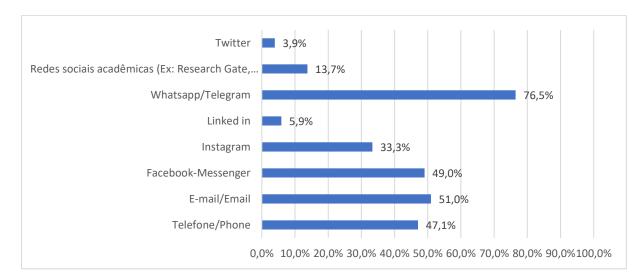


**Graph 35 - Communication Channels - Contact with People from Another Country** 

Source: Research data (2021).

#### **Communication Channels – Contact with Brazilians**

Table 62 – Appendix AAA and Graph 36, it is possible to see the results of which communication channels the international students use to keep in touch with Brazilians. The respondents could check more than one item. Like the two previous questions, the most used communication channel is "WhatsApp/Telegram" – 76.5% (39). It is followed by the second "E-mail" – 51% (26). Next comes the third "Facebook-Messenger" – 49% (25). The fourth is "Phone," 47.1% (24). The fifth is "Instagram," 33.3% (17). The sixth is Academic Social Networks (Ex: Research Gate, etc.) – 13.7% (7). The seventh is "Linked In," with 5.9% (3). The last and eighth is "Twitter" – 3.9% (2).



**Graph 36 - Communication Channels - Contact with Brazilians** 

The four questions above are interconnected. For example, the first one, "Contact with other people," showed that the average of contact with "People from your country" and with "Brazilians" makes it possible to infer that the international students relate the most with people from the same nation and with Brazilians. However, if a local community is formed, it depends on each nationality, which may include people from the same country that live in BH. Nevertheless, not necessarily, formed mainly from UFMG international students.

The second inquiry, "Communication Channels – Contact with People from the home Country," resulted from the most used communication channel to contact people from the home country were 1° WhatsApp/Telegram, 2° Telephone/Phone and 3° Facebook-Messenger.

Oh, and Butler (2019) affirm that international students' co-national environment and information practices occur through online, mobile, and offline interactions, allowing them to acquire the local information needed for their transition and make decisions in the new location.

The third interrogation, "Communication Channels – Contact with People from another Country," the output of the most used communication channel to contact people from another country were 1° WhatsApp/Telegram, 2° Facebook-Messenger, and 3° Telephone/Phone.

In the fourth examination, "Communication Channels – Contact with Brazilians," the outcome of the most used communication channel to contact Brazilians were 1° WhatsApp/Telegram, 2° E-mail, and 3° Facebook Messenger.

There is a common point of this research with the study of Worrall, Ballantyne, and Kendall (2019), which is Facebook Messenger for academic-related and daily interactions by the international students at the Canadian university. The students use the information source to contact other students, friends, and colleagues in their home country. For everyday information practices, the students used Facebook and Instagram, along with Google and WhatsApp for everyday use for daily communication and academic matters.

Another interesting point about their study is that the international students at the Canadian university were partly from Asia and used other ICTs, not common in North America. However, in parallel, they were opened to adopting Facebook, Facebook Messenger, and Instagram – along with their home country apps.

Besides that, the factor support structure was considered to help, by Worrall, Ballantyne, and Kendall (2019), when the international students connect with new friends – especially when from the same/similar home culture) or local family/family friends. In this case, the interaction would be in person or via ICTs – an expressive help for many international students. Thus, "academic connections and information can help expose new contacts and social ties." On the contrary, it is a barrier, if the international student is introverted, it may be hard to make new friends at first and feel excluded from the community.

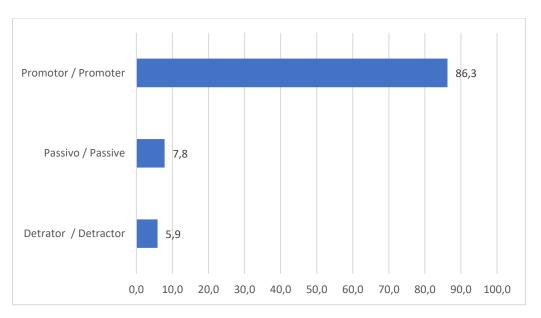
#### **UFMG Recommendation**

For this section, the international graduate students could say the probability that they would recommend UFMG to someone else on a scale from zero (none) to ten (very high). Table 63 - Appendix BBB and Graph 37 show the outputs. The Detractor is the client that would not recommend UFMG and probably has a negative image of the institution. Its grading goes from zero to six. For this profile, there were 5.9% (3) respondents. The second profile is the Passive, who are passively satisfied with the UFMG and would recommend it along with some issues. Its grading is from seven to eight. This grade was 7.8% (4). The last and highest-profile are the Promoters, whose grade is from nine to ten and are considered loyal clients, recommending UFMG to everyone. They have positive feedback and suitable suggestions. For the Promoters, there was 86.3% (44) answers.

To calculate the NPS (Net Promoter Score) of this question, we subtract the percentage of the Promoters minus the Detractors, which is 86.3% - 5.9% = 80.4%. So, the NPS is 80.4. Besides

that, the average grade for the question, from zero to ten, was nine-point-four. Therefore, based on the NPS and the average, it is possible to affirm that the respondents would highly recommend UFMG to another person.

Graph 37 - NPS



Source: Research data (2021).

#### **UFMG Recommendation – Comments**

For this topic, some students chose to make comments about their UFMG evaluation – the question beforehand.

There was much positive feedback about the experience at UFMG. "The university is very good", "It's an excellent university", "My experience at UFMG was wonderful", "UFMG is one of the best universities in Latin America. Studying there is an honor for any student. Graduate programs are of high quality, as are professors", "Deciding to continue with my studies in Brazil in general, and at UFMG in particular, was one of the BEST decisions I've ever made in my life, in many aspects", "I really liked it, the educational level is very good, and the people are very kind", "I think that UFMG is a reference university, and it helped me grow academically. It has quality teaching and employees ready to help", "I liked that they still take foreign alumni students into account", "UFMG welcomed me, guided me a lot. I found a wonderful advisor who, in addition to guiding me in the project, is also a friend and understands my situation far from home. I know

many co-workers and friends, who are foreigners and were welcomed in the same way I was, both from the university and their surroundings".

On the other hand, some students indicated what could be improved at UFMG. "Need better infrastructure and invest more in research", "A recommendation depends very much on the person and their objectives. I think for foreigners, it is still challenging to access, even for Brazilians with the bureaucracy", "Despite not having received all orientations from UFMG when I arrived in Belo Horizonte, I managed to adapt well to the city", "There were many activities, movements, courses in addition to the classes themselves. The choice was difficult, but it led us to the experiences over time", "Despite the difficulties of the current government and the pandemic, I believe in the quality of UFMG and the Graduate Program in which I do my Ph.D.".

# Final Comment, Evaluation or Suggestion

The last question of the survey asked the international graduate students to make a final comment, evaluation or suggestion.

The suggestions made were "During my stay at UFMG, I looked for it, but I couldn't find support with some additional help, which people could have after the scholarship, and those other students, especially from Minas Gerais, certainly had more significant support. For example, to be more participative with economic support in research projects, rent, and new bus routes, but I didn't find it. I had two small children in my case, and I had no information or support for them to enter UMEI or UFMG college, for example", "My biggest critic/suggestion would be to create a department or program to help with the transition between graduate degrees and entering the workforce. Sometimes, I felt that my Master's was too focused on the academic side, something I find complicated because most students will not become professors but rather work in the private sector", "A reception sector for those arriving at the University would be interesting", "I think there might be more disclosure for some things".

A few feedback were more specific: "That Graduate Programs have race and gender equity", "That Graduate Programs continue with this internationalization process", "I would like UFMG to be a more internationalized environment", "Nothing, it was nice to share the experience".

There were positive comments and of who overcame challenges, such as: "I love this university. It gave me the best educational background I have. I keep the best memories of the family that welcomed me, the colleagues, the advisor, the culture. I love UFMG and BH. For me,

it's the most beautiful place in the world. It will always live in my heart", "Although I've been traveling to Brazil for over 30 years (and I know 22 states), I didn't know MG. So, I went with very high expectations. But, moreover, I loved it all: the academic and human experience", "I love UFMG, I am very grateful for my education", "I am very grateful to belong at UFMG. I know the first six months were tough for me due to the language, but I managed to adapt, and it was worth it".

### 7.3 Synthesis, reflections, and common points: semi-structured interviews and survey

According to the Theoretical Foundation presented in this work, the nine semi-structured interviews carried out and the fifty-seven questionnaires answered allowed the observation of relevant points. Therefore, they are presented in this section.

Among the nine interviewees, E1, E2, E3, E4, and E5 are PEC-PG students. E6, E7, E8, and E9 are from Other Programs. E3, E4, and E9 were PEC-G students previously. It means that they arrived in Brazil for the first time years before the Ph.D. to attend the undergraduate course. E3 studied in São Paulo, E4 in Belo Horizonte and E9 in Ouro Preto. E3 and E4 took the Ph.D. through PEC-PG, and E9 applied directly to the Graduate Program at UFMG. As Wilson (2006) described, what could be a psychological barrier served as an advantage. MacInnis and Jaworski (1991) suggested that the more knowledgeable the person, the easier he/she would find it to code information, thus making additional information acquisition easier. De Wit (2017) highlighted PEC-G and PEC-PG PG by the expressive number of international students who have experienced these actions through Brazilian Public Universities (2003-2013). Especially from Africa - Cape Verde, Guinea-Bissau, and Angola. E3 and E9 are from Cape Verde, and E4 is from Benin.

The Brazilian Education Ministry leads PEC-PG to finance the Master's or Ph.D. of students from developing countries. Either Capes or CNPQ (Brazilian Research Funding Agencies) have alternated financing the students' scholarships. Celpe-Bras (Brazilian Portuguese Proficiency Test) may or may not be required for the PEC-PG application process, depending on the international candidate's home country and the actual Public Tender.

Although E8 reported difficulties understanding a Graduate Program Website in Portuguese, it is part of the UFMG Institutional Development Plan 2018-2023 to produce multilingual websites and other materials to disseminate to the university. Callahan (2006)

corroborates this affirmation, emphasizing the importance of having websites with diverse languages to market the universities

If the international candidate is applying to a UFMG Graduate Program through PEC-PG or according to each Graduate Program, in both cases, it is a standard procedure to contact a possible advisor beforehand. The standard way would be by reaching the department or Faculty by e-mail or contacting the advisor without any intermediations. Among the interviewees, E1 described his contact with the possible advisor by reaching Facebook and checking his last advisor's connections. In this case, the Professor of PPGGOC was a connection. So, he contacted her.

"[...] I did the crossover of Facebook profiles, I saw that she was a friend of my former advisor in Portugal, so I could also see that it could be a contact area [...]". (E1, PEC- PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

However, E9 was the exception among the other interviewees. Because he had not had previous contact with her advisor and after his approval on the Graduate Program application process, he was able to choose from other options.

"I think that I entered the doctorate and then chose who could guide me. However, I know that the people who could guide me and everyone would have a vacancy. Then, I would have to choose, and then I chose a supervisor, that Paula Cabral Eterovick" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

Oh and Butler (2019) described the international students as international-less common – when there is not an international community from the same country in the area. So, these students are more isolated from the others. They did not engage in information practices in online conational networking. This circumstance is the case of E6 from Italy and E8 from Romania.

"I remember going to the Federal Police quite often, waiting in line because there was no way to make an appointment. This part, I think, could improve a little. Now I don't know what it's like. And there aren't many foreigners here in the department either [...]". (E6, OP, male, 32, Italy — Ph.D. in Structure Engineering).

E6 had a partner from Belo Horizonte when he applied for the Graduate Program at UFMG. She was supportive of his adjustment needs.

"When I arrived, my wife had already looked for me in the "República" near hers, she also lived in the republic, and I asked her to find me something nearby. So, I

stayed for 3 months in the first "República." The environment didn't last long, so I looked for another one near UFMG. But it was easy, through social networks, Facebook". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

E8 had support from Mrs. Beatriz, representing the Erasmus Program at PPGGOC and Godfather 8.

"[...] So, I talked with this guy (Godfather 8 - DRI – Buddy), and he looked around on Facebook groups and talked with friends and found a friend of his that could let me stay there. For a period of time (...)". (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

On the other hand, the authors define Co-national students as those with an international community with people from the same country, including senior/existing and peer/new students. Usually, this community has already been formed before the student arrives and the one that is arriving has information practices and online information sources to keep in touch with the community in the Pre-arrival, settlement, and Current stages. Among the interviewees E1, E3, E9 – are Co-nationals and from Cape Verde with a very active community in Belo Horizonte.

"So, all this was helped by African colleagues who had been here longer. From the CPF, creating a bank account, renting a house, documents for the university. Finally, documents for visa renewal, bus logistics, how you get to another city, times, dates that you must put, of the important phones. Anyway, all this, given mainly by colleagues who arrived before". (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"I arrived, then I went to the house of some Cape Verdeans. However, before coming here (to Brazil), I asked E4 to help me find a home to live in". (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

E2, E5, E7 are also Co-nationals but from Cuba, and they are surrounded by the Cuban people and the Latin community in BH. E2 and E 5 were supported by their partners at first. Nevertheless, they got involved in the Cuban and Latin communities through time. E7 was received by "Verlab," the team of his laboratory.

"The laboratory [...] VerRLab, which I remember where I entered, is a well-organized laboratory in that sense. Very cool, the guys are really cool. Professors are very welcoming with foreigners [...] And I remember that when I arrived, I already had everything. I already had a place to live, they had already managed it, and they went there to meet me [...] at the airport. So, I wouldn't get lost [...] It was a 'república' [...] with one of the laboratory members". (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

Another Co-national is E4 from Benin. Even though he sorted many issues out on his own, since he lived in BH during his undergraduate course, he described a robust community from Benin in BH nowadays. Besides that, the Embassy in Benin makes an effort to connect new PEC-G students with senior students already living in Brazil. "[...] I already knew where to stay, which house to live in [...] I did everything by myself" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

Category G - Belo Horizonte – interação / Belo Horizonte – interaction is the most coded among the other categories with two hundred and forty-eight aggregate references. The most mentioned similarities between Brazil or BH and culture of origin were related to food/cooking and solidarity – how people help each other in Brazil.

"Remembering the culture itself. I think, for example, food has certain proximity. Although we don't eat rice and beans every day, the daily food in Cuba is rice and beans, meat, salad, those things, then the culinary part. I also think the people, the culture, the people are very close, more supportive and I think it reminds me a lot of people from Cuba [...] There are several. Of course, that chicken with okra [...] Because okra comes from Africa. For example, okra and yam, these vegetables come from Africa, and the slaves took them to Cuba, brought them to Brazil, so there is a lot in common in cooking [...] So, the cuisine has very similar aspects, especially African contributions. It's very similar to Cuba. And rice is every day, the same as here. So, for example, vegetables, most are the same ones we consume there in Cuba, so most are very close". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

To adapt to Brazilian Portuguese the interviewees commented that Portuguese from Minas Gerais was a bit tricky to be understood and emphasized writing academically as challenging. But they allowed themselves to learn by speaking and interacting with people.

"Since I arrived, I started in the first subject I took here for my Ph.D., it is in Portuguese, so I had to learn by doing it. And, the interaction, the day-to-day, was tricky because here in Minas, people speak a little more complicated. Even now, sometimes I have a little difficulty, but it was a continuous learning process (...)". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"I had difficulty (communicating). And difficulty in the subjects, because I used to write (before the spelling agreement), and the Professors corrected my Portuguese, which negatively influenced my grades. Because I write in Portuguese from Portugal. So, this marked me. In addition, at the beginning (PEC-G undergraduate course at eighteen), I found it strange that people did not understand what I said, despite speaking Portuguese (from Portugal), Brazilians did not understand". (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

Based on the data analysis of the for items of the Survey – Portuguese (Speaking, Listening, Reading, and Writing), it is possible to say that Writing is considered the most difficult among the other three. Besides, it takes more time to be developed since it is necessary for a Master's student to write a dissertation and a Ph.D. student a thesis.

Category G - Belo Horizonte - interação / Belo Horizonte - interaction highlights the process that the international students go through to adapt to the culture of Brazil and Minas Gerais. This involves the food experiences, religion, language, education system, routine, and other topics. Sin et al. (2011, p. 1) clarified "acculturation is the process in which an individual learns about and adapts to the socio-cultural norms of the host country. Therefore, successful acculturation can contribute toward the newcomer's productivity and quality of life." The authors Worrall, Ballantyne, and Kendall (2019), Hertzum and Hyldegard (2019), Sin and Kim (2013) and Hughes, (2005) also point out the challenges that the international students face in the new environment, especially in the Settlement stage.

"It was [...] it was kind of a cultural shock for me to come to Brazil. Because it's (...) a very different culture, like the first thing that was different, it's the temperature. So, I don't know if this is related to culture, but it was a shock for me because I came from, I think like minus 20 degrees Celsius to 30. 30 degrees (...) The food was totally different. Totally! Like Brazil has many, many dishes. And I tried all of them. I've never seen something like that (...) And the people were different. Also, I discovered that Brazilians are very touchy. They like to touch you. We don't really do that (...) I think they're the kindest persons I've met. Usually, what I see in my country is that everyone is going fast to arrive at some meetings or be on time somewhere, and when I go through the city, I'm in a crowded a big crowd, and the people push me through the city. This is how I called in Romania, and in Brazil, they actually go down slowly. (...) I was adapted to (...) this idea of going fast of being in time and in Brazil, I could just relax and take my time". (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

The interaction of the international students with Brazilian students, Brazilian Professors, classmates, research group colleagues, UFMG employees were considered friendly by the interviewees. In many cases they developed a close relationship with the Graduate Programs Help Desk workers, since they are involved directly in the annual visa renewal process, dealing with documents. The only exception to point out is the interaction with "Mineiro" (people from Minas Gerais), as mentioned above.

"For me, it was a great experience. I received a good reception from the students in the classroom, and everyone was very patient with my Portuguese. I didn't know

anything when I arrived. They were very supportive. We shared several moments, helped each other with the dissertations, the projects. For me, it was a wonderful experience". (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"Mostly what I found in university is that the people talk in English. Most of the people, not 100%. But I would say 80% of the people speak in English. And that's awesome Because, when I was going to the University, I was always able to find someone that was talking in English and if I had a problem, I was... solving it very fast, you know? Because I was getting the information I needed. And it is the same with the classmates they were talking in English. And we had to be great communication". (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"It was good. We have a laboratory where we do our research. It was excellent because there were always a lot of people. From the beginning, we organized parties, meetings, it was good". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"It was good, especially with the Help Desk staff, who are the ones we talk to the most. With the employees, it was cordially, no problem at all. The secretaries are very helpful. They explained things, you send them an email, and they respond, or you call". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"[...] They are receptive; they are cool, the guys are cool. But the 'Mineiro' has a problem, that he/she 'doesn't trust people easily' Understood? It's a guy who [...] welcomes you, but he's not a guy who is open. So, with the 'Mineiro' it was difficult [...] of course, I didn't have a fight, I didn't have any kind of discomfort, I didn't have any problems. But it was a more professional thing. It never went from professional to friendship, got it? Not with the other guys. With the other guys, it was different. Maybe because of the context, because they were isolated here, they were practically foreigners in Belo Horizonte, and people from another part of Brazil [...] Yeah... but an interesting thing, like that. So, they are not 'Mineiros' I have 7 friends. True friends. Brazilian friends [...] but not 'Mineiros' So, you get the idea'. (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

Since E1, E2, E3, E4 and E5 were PEC-PG students they expressed if they had contact with other PEC students and how it happened.

"Many students contacted me from Brazil, a Chinese, Peruvian, Colombian. I am part of the PEC-PG scholarship holders' Facebook group (...)". (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"So specifically, from the PEC-PG, I don't know anyone else. There are others who came through other programs [...] For example, some people worked at college and managed to travel to Brazil because of agreements between the colleges. I think I was one of the few people I can remember who managed, at least at UFMG, at least in Communication, to apply the PEC-PG directly. The rest of the people I know were already here, and they entered the selection process like the Brazilians and others. Because of their institutional link in Cuba, they exchanged more directly. In other words, the link with the Brazilian program

made things easier". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

Category J - Fontes de informação / Information sources is one of the most coded among the other categories with a hundred and eighty-four aggregate number of references. In addition, Subcategory J.66 - Pessoa como referência de informação / Person as information reference - the most coded within Category J and the most coded among the other subcategories of the entire analysis with eighty-five aggregate number of references. All the interviewees, except for E4 (had already lived in BH for the undergraduate course) had someone as a direct support in the Pre-arrival and/or Settlement stages. E1 and E2 had their partners. Although E1 had Godmother 1(DRI-Buddy). E3 contacted E4 and they developed a friendship, helping each other. At the beginning, E4 gave more support to E3. Though, during the Current stage it was more balanced. E5 and E6 also had a partner living here before they arrived. E7 had the institutional support of a well-structured lab the "VerLab" from the Computer Science Department. E8 had Mrs. Beatriz (Graduate Program Professor) as an Erasmus representant since the Pre-arrival stage and during his Settlement stage, besides Professor Beatriz he had the support of Godfather 8 (DRI-Buddy). E9 had the support of an African or Cape Verdean community in Ouro Preto and in BH.

Godfather 8 (DRI-Buddy). E9 had the support of an African or Cape Verdean community in Ouro Preto and in BH.

"I saw his name on the PEC-PG approval list. So, I looked up his name on Facebook, then texted him (E3's first contact with E4) [...] After meeting and exchanging emails and messages via Facebook, we created a friendship connection. Arriving here, he received me, who took me to the DRCA to enroll. And, as we are from the same Ph.D. program, we ended up getting very close [...] I arrived, then I went to the house of some Cape Verdeans. However, before coming here (to Brazil), I asked E4 to help me find a place to live". (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I had no follow-up. I managed it myself. I printed and read everything to see how to apply. I didn't understand some things that I called Brazil to clarify [...] I had already studied here before". (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"I already knew Belo Horizonte because I was here in 2012 on that cultural exchange. I already had an idea of mobility within the city [...] I arrived here. I already had a relationship with Person 5, she was living in a house, and I went to live with her. There wasn't that process of starting to look for housing, rent. In fact, I've never lived in a 'república'". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"She (Mrs. Beatriz) was very significant. She helped me anytime, with everything I needed. So, she was actually giving me advice and giving me information, that I maybe I was struggling, just searching around for it (...) I got the buddy (Godfather 8) from UFMG from this International (DRI) (...), And he was a student (...) at UFMG (...) Letras (...) he helped me also with information, mainly about Brazil and how is life there and what are the eating places I have to see, how expensive is, different stuff. So, it was more about (...) living in Brazil (...) Godfather 8 got me to where I was staying. It was his friends' place". (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"[...] When you arrive in a different country, I think that, at least for me, in my experience, there is a great tendency for agglutination, right? [...] We do not know how the bureaucracy of each space works, each place we arrive at. And so, it's for people who sometimes don't have the university service [...] who are readily dedicated to resolving these issues related to visas. So, we need support, and that is natural [...] Then someone must guide you. So, all this was helped by African colleagues who had been here longer". (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

It is also noteworthy that Subcategory J.67 - Secretaria do Programa de Pós-Graduação / Graduate Program Help Desk - the second most coded within Category J with twenty aggregate references. Nevertheless, along with all the processes from the Pre-arrival, settlement, and Current stages, the students had gone through, they also had contact with other people, such as employees from UFMG or other organizations, who have marked them by their dedication. Yoon and Chung (2017) also stated that the internet and people (family, friends, relatives, and staff in international students' offices) were the primary sources of information for international students in the Pre-arrival and Settlement stages.

"So, I got in touch with the Graduate Program Help Desk that their email is available on the website. First, I tried it here, then I got an answer from secretary Nely". (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"At the time, I had the secretary here in the Graduate Program, Inês, who has retired, and she guided me through all the procedures. [...] When I arrived, my wife had already looked for me (a place to live) in the house near hers, she also lived in the house, and I asked her to get me something nearby [...]". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"So, I always went to the Graduate Program Help Desk directly. So, I've always had a good relationship with them. Because we are foreign students, we always must go to the Department, look for documents to go to the Federal Police, to renew the visa". (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"Just reiterate that the PEC-PG Public Tender is very accurate. And in addition to the Public Tender, there is a person at the embassy, Olga, who has a lot of

experience with international exchanges. She is very didactic. She explains with great patience the step-by-step of all these processes [...] Through her, the ambassador delivered a letter for you. So, you go to the company and the airline to buy a student ticket with a discount. So, they have there, or they had, a structure that helps a lot. I remember that Olga even recommended several Portuguese teachers in Havana. She had the contacts of several, she gave the telephone number, the email of these teachers to the candidates to look for them". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

There were two students who considered their experience great, due to the effort of their Graduate Programs. Among the interviewees it was E7 and one respondent of the Survey too. E7 was from the Computer Science Department and the respondent of the Survey from the Demography Department.

"I was privileged in the sense that I entered a Department, a Graduate Program in which it is well structured. It is already used to welcoming foreigners, and, consequently, they have many initiatives to try to integrate the foreigner into the department [...] When I compare myself with other boys from other departments, from other programs, friends of mine, whether from the Information Science area, Chemistry area, or Humanities area, I don't know, physics and there's several here, from other areas. And we talk about the processes, the documentation, the flow of information since you arrive until you are integrated into the department. So, DCC is way above [...] the Department of Computer Science [...] I don't know how they achieved so much development, in this sense, but they are well [...] organized. Everything is self-explanatory, the flow is very clear, welcome, and their initiatives with foreigners are excellent. So, in that sense, I have no complaints. In this sense, perhaps other students from another program have more difficulty. But in my case, it was [...] too cool too". (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"I did not get much help from UFMG, but the Demography Department did a great job, helping me with all the steps to get a student visa". (Survey, anonymous respondent).

"I think my experience for the incredible work of the demography department. I had little contact with other parts of UFMG while preparing for my arrival. Well, maybe the DRI can take a more active role in this regard". (Survey, anonymous respondent).

There were common challenges between the interviewees and the Survey respondents and relevant issues that were pointed out. Such as Portuguese along with cultural aspects involved, financial problems, COVID-19 pandemic, housing, to make friends with people from Minas Gerais (Mineiros), Brazilian bureaucracy, logistics to move around Belo Horizonte and UFMG.

# Portuguese and cultural issues, financial problems, COVID-19

"I think it was the language itself, understanding what others were saying outside the school environment. Because at the School, knowing that there is a foreign person, people tend to speak more correctly, more slowly. In everyday life, it was a little more complicated, shopping, making a call". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"A big financial impact, too. Because everything is much more expensive. I think it takes a lot more, but for me, it was the logistics of transporting me, perceiving myself in space, that the giant university too, right? but the city itself, being a gigantic city, was different for me". (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"Learn Portuguese, understand people, and let people understand me". (Survey, anonymous respondent).

"Language, lack of money". (Survey, anonymous respondent).

"Language and the pandemic". (Survey, anonymous respondent).

## To make friends with people from Minas Gerais "Mineiros" and cultural aspects

"I heard from other foreigners who have also lived here for many years. In the specific case of BH, MG, it is a more closed region to receive foreigners. I knew that. They say that Rio de Janeiro and São Paulo are more used in their daily lives to have relationships and live with foreigners. However, here in the case of BH, as it is a city with recent tourism, they do not have this experience, and perhaps they are not so open here in town for foreigners. I knew about this characteristic because I even developed friendships with Brazilians who studied here at the university. But from other country regions such as Porto Alegre, Fortaleza, Espírito Santo, which was a little curious as they were a little more open than the 'Mineiros' themselves. Here, it can be one of the consequences because I have no [...] closer relationships with 'Mineiros' or people outside the university. But that's also it, this inclusion in society here in the city, I don't know if it happens with other towns in Minas, but maybe this social inclusion could be a challenge". (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I think it was good. People here are very receptive. People say that Minas Gerais is a little difficult to make friends with, I felt that too, but in general, people are very available daily. In Italy, you don't see this: an employee who helps you when you're doing the CPF, who is very friendly. I really liked this aspect". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Initially the language, but later it was like integrating with the students from Minas Gerais, I find a great closure". (Survey, anonymous respondent).

"Learn cultural habits". (Survey, anonymous respondent).

"Make Brazilian friends". (Survey, anonymous respondent).

# Housing

"Having someone to guide these students, to know how they are, the difficulties, for example, for housing it is complicated, for outsiders, to be able to live in a place [...] with quality. Sometimes, there are times when you manage to reconcile the price and quality, but there are times that even if you have money, you can't. Because you don't have all the necessary documents to be able to rent a space and you depend on other Brazilians, the over comprehension of people, who rent that house and people with all rights, sometimes are not always willing to break some [...] rules for receiving you or for knowing that you are a foreigner [...] So, I think that kind of assistance would be crucial. By doing that, we can do the rest well". (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"To get suitable accommodation - Renting an apartment was a huge challenge - It was really tough to find an apartment, complete the documentation, security deposit and guarantors". (Survey, anonymous respondent).

"Find a place to live where I felt welcome, find suitable places to buy food, food transition". (Survey, anonymous respondent).

# Logistics to move around Belo Horizonte and UFMG

"Also, that was very difficult for me was to go through the city with the bus. Because I discovered that the buses don't stop. If you are in the station, you have to stop them (...) Yes, and they also don't stop if you're on the bus, you have to press the button to stop the bus like (...) also, I had problems with buying tickets because you have to pay the driver and he gives it a ticket. Then you have to use a ticket to go through the role through that thing (...) I was always having problems with that, even after two months. I was still struggling to go through that thing... so I remember that there were people on the bus (...) I learn how to say that I want a ticket like I don't recall now. I was saying I was keeping the ticket. I was putting you through and going to that thing. Always people were laughing of how I would think that ...I don't know. I was doing something wrong". (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"[...] My biggest challenge was the logistics of living in a big city [...] I think it was a significant impact for me, getting used to losing a lot of time in traffic [...] having to live far from the university [...] the confusion of people, you weren't used to being in crowds like that [...] A lot of people, circulating' I've already talked a little about transport, transport logistics, that I had to keep taking a bus here, taking another one there, discovering each one, the rush hours, that I had to concentrate and know the best times to take the bus and class schedules, too [...] It's too tense, wasting 40', 50' minutes on the bus, round trip. Sometimes, you make the average if you waste almost 2 hours a day just making the journey, right? [...]". (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"The university is enormous. So, I got lost. Take a bus. Know the bus stops". (Survey, anonymous respondent).

"Walking through the center of Belo Horizonte". (Survey, anonymous respondent).

# **Brazilian bureaucracy**

"There were a lot of documents. Actually, what I remember is that Brazil has a big bureaucracy, like a lot of documents that you need, and they're kind of difficult to get. Like, if you are new in that country, take some time to think, to discover the documents you need. To know how to complete them". (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"Be able to go through migration procedures". (Survey, anonymous respondent).

"Information on disciplines and departments is not standardized - each has their own website, forms, procedures, lesson plans. Evaluations are not clearly written with evaluation criteria, resources, format, deadline, etc.". (Survey, anonymous respondent).

"Bureaucracy and machismo". (Survey, anonymous respondent).

Concerning the personal experiences lived by the interviewees two of them should be highlighted, one about prejudice (E1) and the other refers to the institutional and personal support received by E9.

"I had some contacts, some neighbors because I saw that some have prejudices. And I decided to leave it aside. Because when I arrived, there was something like that 'you are African, but you are not violent' [...] As I am African and Africa has the stereotype of only having a war, it has hunger. So, they associate war and famine, and they think, as I'm a more educated person, so I go up to people and say, 'Oh, you're African, but you're not violent' A Brazilian told that, and from that moment on, I identified this person, but it was one of the few cases I mentioned intolerance (...) I felt it in supermarkets when I go shopping; I'm always well dressed, so I don't catch more attention from my melanin and accent, so I go in, and someone stays behind. This happened several times in supermarkets. I think this is outdated [...] I never felt (about prejudice within the university) because I know how to get there and how to be, as I told you. And if there was anything, I never noticed it directly to me. It's more in the environment here. People are more used to foreigners, so it's much more peaceful inside the university [...] The situations I mentioned about supermarkets are nothing to me. For me, they are outdated. I had no major problem. Like I told you, you must know how to be, each country has its rules, and you don't have a problem (...)". (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

[...] When I arrived at the UFOP (PEC-G), we had 2 people who helped us a lot. Which was Mr. Adilson and Dulce. I forgot her name [...] it was Dulce [...] during my stay in Brazil [...] I was fortunate, because, for example, in Ouro Preto, there is a system of 'Repúblicas' for those who come from abroad, for those who are arriving in the country, it is crucial because they organize themselves very well when it comes to a member who lives with them. And whenever I needed some

kind of medical service or needed help because of an illness, I had more than 10 people to support me to help me resolve this, right? It's [...] both monetary and logistical, right? And to decide if I go to the hospital if that was it or not, anyway (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

Even though the interviewees and the survey respondents are from different countries, it was not possible to carry out a more detailed analysis of nationality differences, as this was not the scope of the research and because of the complexity of the topic. However, from the literature review carried out in Step 2 - UMD, it can be stated that there is a shortage of studies related to informational needs in different nationalities, particularly in the context of international students. The studies developed by Hofstede (1980) about cultures have been considered a reference in different fields. About the topic concerning international students the authors Sin (2015), Oh and Butler (2019), and Yoon and Chung (2015, 2019) referred to the impact of culture in the information behavior of these students.

This research considers two types of students Regular International Graduate Student - defined as taking the full course of Master's or Ph.D. The other option is to be a Temporary International Graduate Student - defined as taking part of the Master's or Ph.D. regardless the Exchange Program Modality. All the interviewees were Regular International Graduate Students and, on the Survey, eighty-two-point-four percent or forty-two answers students took a "Full course of Master's or Ph.D."

On the Survey, for the reasons of choosing UFMG as the final choice, similar points marked by the respondents were exposed by the interviewees. The first reason is the university's "Positive academic reputation" with sixty-eight-point six percent and thirty-five answers. E9 mentioned a similar reason:

"First, because of excellence, right? UFMG has always been an excellent reference for me as a student in my area of expertise, biology. Furthermore, I think I could grow a lot. [...] I applied for UFMG, also followed by proximity. [...] I was in Ouro Preto. So, for me, it was interesting to have this approach. I was close to a large university [...] recognized worldwide. And then, I applied for the test afterward. Because if I had gone to my country and then tried the PEC-PG and then returned, I would have wasted time. And there are also the expenses involved with the ticket, with the visa, all the bureaucracy that I would have. Moreover, going straight through, [...] I would not waste time. I would not even run after all the bureaucratic processes, which require re-application, right"? (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

Another common reason was "Friends, family or partner," with forty-three-point-one percent and twenty-two answers. On the other hand, among the nine interviewees, E1, E2, E5, and E6 had their partners living in Brazil when they arrived, and it was one of the reasons to come over to study at UFMG.

"I already knew Belo Horizonte because I was here in 2012 on that cultural exchange. I already had an idea of mobility within the city [...] I arrived here. I already had a relationship with Person 5, she was living in a house, and I went to live with her. There wasn't that process of starting to look for housing, rent. In fact, I've never lived in a 'república'". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"In fact, I had heard about UFMG in general because of my wife. Because she also studied here. Furthermore, during my undergraduate and master's degrees, I never heard of the university. In general, from the researches I studied, none were related here with Brazil, with Brazilian institutions". (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

Silva and Lima (2013) mentioned that during the Pre-arrival stage, the international candidate considers a combination of factors to choose a Graduate Program to apply, including the university. Therefore, in the end, a positive reputation counts the most.

After evaluating the quality of information available on the official channels of UFMG about the graduate application process, the respondents of the Survey gave their opinion about their grading. There were negative, positive, and neutral feedback. The main issue reported was to find the websites in Portuguese. Besides that, the need to be more up-to-dated and to show clearer information flow.

"Information on official channels is incomplete. For example, the Graduate Program course in Bioinformatics in English is incomplete. Luckily, I understood the information in Portuguese and had the support of my advisor". (Survey, anonymous respondent).

"I found all the information I needed, but I had to translate from Portuguese some of it". (Survey, anonymous respondent).

"The site needs to be more up-to-date. It has very old information". (Survey, anonymous respondent).

"Confused explanations about the process". (Survey, anonymous respondent).

"Lack of information on procedures for foreigners (degree validation, consular document stamps, etc.)". (Survey, anonymous respondent).

Callahan (2006) states the importance of developing international universities' websites in English. This affirmation is aligned with UFMG Institutional Development Plan 2018-2023 to create multilingual websites and advertisement content in a foreign language.

Following the evaluation of the quality of information available on the official channels of UFMG about the visa process, the respondents of the Survey expressed their point of views. There were negative, positive, and neutral comments. The most relevant comments were related to lack of information and how the students counted on someone else support to overcome it.

"At the time, I did not see anything about visas on the UFMG page. I had to contact the consulate". (Survey, anonymous respondent).

"I think that the information is available when you ask but not easily available". (Survey, anonymous respondent).

"Because I had never had access to this information on the page of the Graduate Program I am inserted". (Survey, anonymous respondent).

"The visa process was completely helped by my friends and the Federal Police website. UFMG had no help with this". (Survey, anonymous respondent).

On the Survey, the students evaluated the most important information during the Settlement stage, which is presented in the following list. The final rank is 1° "Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.)," 2° "Banks, ATMs and Exchange Agencies." 3° "DRI, Biblioteca, Reitoria, etc. /University and academic matters (DRI, Library, Reitoria, etc.)". 4° "Health Services (Free Health Care branches and Hospitals)" and "Transportation (Buses, subway, and apps)." 5° "Housing-places for living." 6° "Supermarkets." 7° "Routes-names of streets." 8° "Events, Fairs and Festivals" and "Sports-Leisure-Recreational places." 9° "Bars, Restaurants, and Coffee Shops." 10° "Cinema-Theater." Afterward, the most relevant topics were related to the information source, and here is the result.

For the themes "Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.)", "Banks, ATMs, and Exchange Agencies," "University and academic matters (DRI, Library, Rectory, etc.)", "Transportation (Buses, subway, and apps)," and "Housing-places for living" the most used information source were the same - 1° "Friends-other Brazilian students," 2° "Friends-other students from the same country" and 3° "Friends-other students from other countries ." Only one exception happened for the topic "Banks, ATMs, and Exchange Agencies," which was two information sources in the second place 2° "Friends-other

students from the same country" and "Friends-other foreigners that live or have already lived in BH."

It means that the international students keep more in touch with Brazilians and people from the home country. Oh, and Butler (2019) affirm that international students' co-national environment and information practices occur through online, mobile, and offline interactions, allowing them to acquire the local information needed for their transition and make decisions in the new location.

The other question of the Survey analyzed the communication channel used in each of the three cases "Contact with People from the home Country" - 1° WhatsApp/Telegram, 2° Telephone/Phone, and 3° Facebook-Messenger. "Communication Channels – Contact with People from another Country" - 1° WhatsApp/Telegram, 2° Facebook-Messenger, and Channels 10 Telephone/Phone. "Communication Contact with Brazilians" WhatsApp/Telegram, 2° E-mail, and 3° Facebook-Messenger. We can affirm that WhatsApp/Telegram, Facebook-Messenger, Telephone/Phone, and E-mail are the most used communication channels. This result is similar to Worrall, Ballantyne, and Kendall's (2019) study when the students used Facebook-Messenger (students, friends, and colleagues in their home country). Facebook, Instagram, Google, and WhatsApp (everyday use for daily communication and academic matters). We can also state that the students use more than one communication channel simultaneously.

Social networking sites were also actively used by International-common students from India and Korea for their co-national networking and information practices. International-common students' co-national networking on social websites led to a more instant interaction with local co-national students on mobile platforms. An Indian student described how co-national social networking began on Facebook groups and expanded into mobile social networking on WhatsApp (mobile social networking/messaging application; <a href="www.whatsapp.com">www.whatsapp.com</a>) (OH, BUTLER, 2019, p. 1066).

A similar result came up regarding the interviews. E3 mentioned Facebook, WhatsApp, and Happn. E5 cited WhatsApp and Messenger.

"We (About Cape Verdeans who live in the region of BH) have a Facebook group called "People BH," formed by Cape Verdeans from PEC-PG and PEC-G, and we also have a group of "WhatsApp" [...] There are different types of groups. There is a group of people from Cape Verde, and other groups with people from Mozambique, Angola, from other (African) countries, which we also live with a lot. It has larger and smaller groups. We always meet! [...] But I know other

people, too. I met through Facebook and also through an app called "Happn." So, I have a lot of friends and friends I met there. In Cape Verde, there is no such thing as an app... So, I downloaded it to meet people who have become great friends today". (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public health).

"Through the applications, they send messages for specific things, and when we have a birthday or have some activity related to music linked to Cuban culture, these people show up [...] WhatsApp, Messenger, or the phone itself. Sometimes people need some information, or they need to know if someone is going to Cuba or coming to Brazil, and then people call me; I call people". (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

A few students gave their opinion about the UFMG Host Event that they attended, which was well graded with an average of nine-point-three. Probably organized by DRI or a Graduate Program.

"It was very objective and essential information for starting at UFMG. It was quite complete". (Survey, anonymous respondent).

"It clarified a lot, and the best part is that it had the participation of international students as speakers and in the organization". (Survey, anonymous respondent).

"The Demography Department always takes an initial class at the beginning of the year, in addition to taking a short course before starting the master's degree. I felt very well prepared and informed after participating in these events", "It was the program welcome event, not UFMG, and there was probably too much information and not enough time for meeting other students". (Survey, anonymous respondent).

### 8 FINAL REMARKS

The first part of this section is an overview each one of the objectives. Furthermore, Final Considerations, Main Contributions, Research Limitations and Future Studies.

# 8.1 Characteristics and information needs of International Graduate Students at UFMG

This section refers to the general objective of this thesis "understand and map the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais." The characteristics and information needs underlined are based on the literature and predominant data analyzed. Concerning the characteristics, at first, the demographic data is exposed and afterward the social interaction. The information needs were classified according to the Pre-arrival, Settlement and Current stages. They are presented as subsequently.

Frame 10 - UFMG International Students' Characteristics - Demographic Data

UFMG International Students' Characteristics – Demographic Data		
Age	Minimum of 24 years old and maximum of 52	
Educational Program – Financing type	PEC-PG and Other Programs	
Course	Ph.D. (majority) or Master's (minority)	
Type of student	Regular (majority) or Temporary (minority)	
Gender	Male (majority) or Female (minority)	
Scholarship	1º Capes or 2º CNPQ	
Origin	1º Africa and Latin America 2º Europe, Asia, and North America	
Predominant native language	Spanish, but speak other languages	
Self- Portuguese level perception	Reading, speaking, and listening – fluent. Writing - advanced	
Graduation Program Student	Alumni (majority) or Current (minority)	

Source: Created by the author (2022).

The next Frame presents the International Students' characteristics regarding social interaction.

Frame 11 - International Students - Characteristics - Social Interaction

International Students – Characteristics – social interaction		
UFMG Hostess	Graduate Program Help Desk and/or Friends, family, and partner	
Health problems back up	Free Health Center (SUS)	
Adaptation period	From 3 to 6 months	
The biggest challenges	Language (Portuguese)/ Housing/ Making friends - especially from Minas Gerais/ Brazilian Bureaucracy/ Transportation and Traffic logistics/ Being far from Family	
Contact with other people	The most frequent with Brazilians and people from the same country	
The most used ICTs	WhatsApp/Telegram, Facebook-Messenger, Telephone, and email	
Would he/she recommend UFMG to someone else?	Yes	

The Frames 12, 13, 14,15 and 16 present in this order, Pre-arrival – Information Needs. 2-Settlement stage – Information Needs - UFMG Enrollment. 2- Settlement stage – Daily Information Needs. 2-Settlement stage – Academic Related and 3-Current stage – Information Needs.

Frame 12 - UFMG International Students - Pre-arrival - Information Needs

UFMG International Students – Pre-arrival – Information Needs
Scholarship Requirements
University Reputation
Graduate Program field and credibility
Possible Advisor – research interests
Graduate Program Application Process
UFMG International Student Community
Co-national International Student Community
Local Brazilian Consulate Requirements (home country) and visa documents
Visa documents

# UFMG International Students – Pre-arrival – Information Needs Portuguese Level – Celpe Bras (when is a requirement) Housing Cost of living Transportation Child Care

Source: Created by the author (2022).

Frame 13 - UFMG International Student - After arrival - 2- Settlement Stage - Information Needs - UFMG Enrollment

UFMG International Student – After arrival – 2- Settlement stage – Information Needs - UFMG Enrollment
Graduate Program Help Desk – general information about enrollment
DRI Host event – Buddy system, cultural activities, and other topics
Scholarship Procedures (it may differ depending on the type of International Exchange Program)
Federal Police, CPF, Bank (bureaucratic procedures)

Source: Created by the author (2022).

Frame 14 - UFMG International Student - 2- Settlement Stage - Daily Information Needs

UFMG International Student – 2- Settlement stage – Daily Information Needs		
Housing/ "Repúblicas"		
Medical Care back up (it may differ depending on the type of International Exchange Program)		
BH/UFMG Traffic and Transportation		
Telephone companies		
Food – grocery stores and supermarkets		
Brazilian culture support		
Portuguese Classes and Celpe-Bras		
UFMG International Student Community		
Co-national International Student Community		

Frame 15 - UFMG International Student - 2- Settlement Stage - Academic Related

UFMG International Student – 2- Settlement stage – Academic Related

Attending Classes

Library

UFMG Campus and Graduate Program Facilities

"Minha UFMG" – UFMG Students data base

Meeting the Advisor/Research Process

Meeting the Research Group/Lab

CNPQ and Capes report at the end of each semester

Career and Professional Development

Source: Created by the author (2022).

Frame 16 - UFMG International Student – 3- Current Stage – Information Needs

UFMG International Student – 3- Current stage – Information Needs
Daily information needs (changes through time)
Academic-related needs (new at each semester)
Recreation (favorite activities)
Brazilian Student Visa annual renewal – Graduate Program documents – Federal Police

Source: Created by the author (2022).

The international student's information needs are exposed regarding the steps of the international exchange program. Frame 12 shows the information needs of the Pre-arrival stage when the international candidate is checking the countries, universities, graduate program application process and is checking all the possibilities to study abroad. The candidate's first contact with the university may happen at this stage, and de decision to apply at UFMG considers many associated.

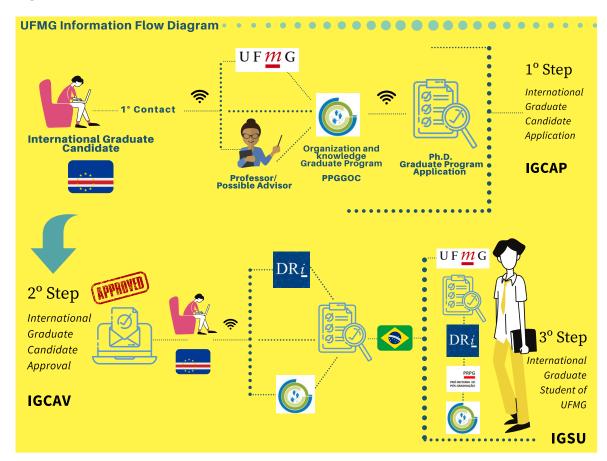
For Step 2- Settlement stage, there are three frames: 2- Settlement stage – Information Needs - UFMG Enrollment; 2- Settlement stage – Daily Information Needs and 2- Settlement stage – Academic Related. Regarding Frame 13 - 2- Settlement stage – Information Needs - UFMG Enrollment, after the international student arrives at UFMG, he/she needs to carry out specific

processes at certain departments or external organizations to officialize his/her enrollment at the university. Concerning Frame 14 - 2- Settlement stage – Daily Information Needs the international student faces the routine of the university and life in BH, interacting with the place he/she starts living in day-to-day discovery. The Frame 15 - 2- Settlement stage – Academic Related concerns the university routine when classes happen and contact with classmates, professors, library, and other UFMG workers.

The last Frame 16 - 3- Current stage – Information Needs is interconnected with the daily information needs that will be adapting according to the place the student lives, furthermore with the academic-related needs that are new every semester – depending on the classes, research group, lab, research process, library, and everything else involved with the university environment. Nevertheless, the information needs to be directed towards recreation in the area. Finally, at last, the Brazilian student visa renewal happens annually.

# 8.1.1 Information Flow - enrollment at a UFMG Graduate Program

This section is about the first specific objective "develop an information flow model to map the application and enrollment processes of UFMG's international graduate program." The UFMG Information Flow is illustrated in Figure 22.



**Figure 21 - UFMG Information Flow** 

Figure 21 presents all the three stages that the UFMG international graduate student carries out. It is divided into three Steps: 1- Pre-arrival, 2- Settlement stage, and 3- Current stage.

For 1- Pre-arrival, the international Graduate Candidate (Cape Verdean) has his first contact accessing the UFMG website and contacting a possible advisor (common research interest and previous contact) through e-mail. At first, he is in Cape Verde doing everything online. Through the UFMG website, the candidate finds the Organization and knowledge Graduate Program (PPGGOC) website, which is his field of study. He checks the PPGGOC website, and all the Ph.D. application processes. A Master's candidate would go through similar steps, which depends on the Graduate Program Application. Step 1.1- Pre-arrival is when the candidate is approved on the Graduate Program and communicates with DRI PPGGOC about the necessary documents to apply for the Brazilian student visa.

At Step 2- Settlement stage, the international student arrives at UFMG and carries out the enrollment at UFMG, goes to the Federal Police, creates a CPF, goes to the bank, and sorts the bureaucracy through PPGGOC, DRI, and indirectly PRPG, which is connected to PPGGOC. The international student starts his classes and at the same time adapts to Brazilian culture.

During Step 3- Current stage, the international student renews the Brazilian student visa annually, reports either to Capes or CNPQ at the end of each semester, is either taking classes or focused on his research process.

The information corresponding to each stage is presented in sections 4.2.1 Pre-arrival stage, 4.2.2 Settlement stage and 4.2.3 Current stage.

# 8.1.2 Mapping of support networks

The second specific objective is to "map the informal support networks for International Graduate Students at UFMG."

Figure 22 illustrates the informal support networks mentioned by the interviewees E1, E2, E3, E5, E7, and E9, African and Cape Verdean communities, Latin and Cuban communities. According to Oh and Butler (2019), these international students are International-common-group because they have an international community and co-nationals as peers from the same country. E4 described his experience as doing things "on his own." E6 mentioned not many foreign students when he applied for Grad studies. E8 said it was difficult to find an international students' community. E6 (Italian) and E8 (Romanian) are international-less- common students. Since they did not have support from other peers from the same country.

Concerning the Figure, Belo Horizonte and Ouro Preto are black (city and town). Federal University of Minas Gerais - UFMG and Federal University of Ouro Preto - UFOP are universities, and in green. African and Cape Verdean Communities are in light blue. Latin and Cuban communities in orange. Besides that, Other Nationalities are in red.

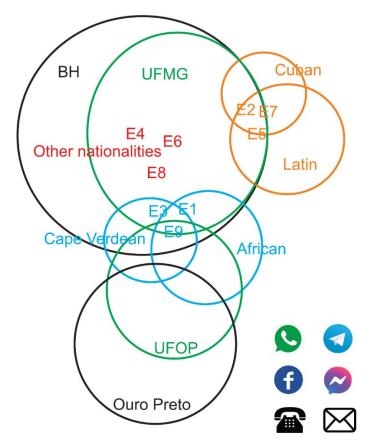
It is essential to highlight that E2, E5, and E7 are Cuban, localized in the intersection of BH, UFMG, Latin x Cuban communities. E1 and E3 are localized in the intersection of BH, UFMG, African and Cape Verdean communities. Finally, E9 is localized in the intersection of BH, UFMG, UFOP, African and Cape Verdean communities. His contact with the community comes from being an undergraduate student at UFOP. The logos that represent the most used information and communication technologies are at the bottom of the right side of the figure, which are

WhatsApp/Telegram, Facebook-Messenger, Telephone, and e-mail. During the interviews, it was mentioned by E3 some online communities. According to her, there is a Facebook group called "People BH," formed by Cape Verdean people from PEC-G and PEC-PG, besides a WhatsApp group. E3 highlighted different WhatsApp groups with people from Cape Verde, Mozambique, Angola, and other African countries, who Cape Verdean from BH also have contact and meet up frequently. Furthermore, E5 mentioned he had contact with some Cuban people that lived in BH, "through apps, they send messages for specific things, and when we have a birthday or have some activity related to music, linked to Cuban culture, these people appear." He clarified the apps like WhatsApp, Messenger, or the telephone. "Sometimes people need some information, or they need to know if someone is going to Cuba or coming to Brazil, and then people call me, I call people."

The interviewees mentioned the information and communication technologies that were also the most used by the survey respondents to contact "Brazilians" and "people from the same country" – WhatsApp/Telegram, Facebook-Messenger, Telephone, and Email.

The authors Oh, Butler, and Lee (2014, p. 5) stated the interaction of International-commongroup with their co-national peers at the University of Maryland.

As identified in P4's comment, Indian students had a very helpful senior student group to provide various kinds of assistance to new students such as recommendations for housing, guiding throughout the campus, and providing temporary housing for a week. Participants reported that Chinese, Indian, and Korean students all had their student associations at the University of Maryland, College Park, and that their websites and Facebook groups were the online communities where the senior students and new students can connect with each other and share helpful information.



**Figure 22 - Informal Support Network Mapp - International Communities** 

# 8.1.3 Solutions Proposal to Attract New International Candidates considering their information needs

This part refers to the third specific objective "provide candidate recruitment campaign proposal and information solutions for official UFMG communication and consideration to attract new international candidates for graduate studies". In this case, UFMG should market the Graduate Programs in educational websites, through its partnerships with other institutions and reinforcing the multilingual communication on the official communication channels, which are UFMG website, Twitter, Facebook, Instagram, Tumblr, Medium, YouTube, Linked In and Flickr. Moreover, Chen (2007) highlights some ideas:

[...] To attract top international graduate students, policy makers and institutional administrators should focus on investing in research and ensuring the quality of graduate education, while devoting efforts and resources to the internationalization of graduate education, as well as crafting a national marketing

strategy to enhance awareness of and the overall image of their higher education institutions and programs (CHEN, 2007, p. 271).

The next Frame 17 exposes the information need of the international students on the Prearrival stage, followed by the suggested improvements and ICTs that could be applied.

Frame 17 - UFMG International Students - Pre-arrival - Information Needs - Suggested Improvements

UFMG International Students – 1- Pre-arrival – Information Needs	Suggested Improvements	ICTs
Scholarship Requirements	The Public Tenders of the Graduation Programs application processes present the scholarship requirements and maintenance conditions. It should be clarified as soon as the international student arrives at university.	Graduate Programs website
University Reputation	UFMG's website is already multilingual - highlighting the international rank position of the institution and recent achievements. The other communication channels should disseminate this information in a way that can attract the attention of the candidates, according to each media.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)
Graduate Program field and credibility	Multilingual (Portuguese/English/Spanish) Graduate Programs websites be at least in English, including all the links and information that markets the program. In addition to disseminating their realizations.	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook page and Instagram (post and reels)
Possible Advisor – research interests	The Graduate Program Faculty page be multilingual, followed by the mini curriculum of each Professor, research interests, and contact (Portuguese/English/Spanish).	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages, and Instagram (post and reels)
Graduate Program Application Process	The information flow with the application process, at least in Portuguese/English. A list of documents in Portuguese/English also should be provided as a web page and a PDF version of the forms exposed.	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages, and Instagram (post and reels)

UFMG International Students – 1- Pre-arrival – Information Needs	Suggested Improvements	ICTs
UFMG International Student Community	Create a community on Facebook. Use the social network "Rede de Oportunidades" (explained in the following table).	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)
Co-national Student Community	The links to the Facebook (or other social networks) Co-national Communities could be available on each Graduate Program website (e.g., https://www.facebook.com/pec.cabo verde) "Helping new international students connect with each other, especially with their co-national senior and peer students, can contribute to their effective information acquisition and settlement. Especially for international students who do not have many co-nationals on campus, intentional efforts by the academic institutions or other organizations to foster these connections may better assist new international students' acculturation in the host country" (OH, BUTLER, LEE, 2014, p. 10).	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)
Local Brazilian Consulate Requirements (home country) and visa documents	A list with the standard documents required for the Brazilian Student Visa be available on UFMG and the Graduate Programs websites.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)
Portuguese Level – Celpe Bras (when is a requirement)	UFMG and the Graduate Programs websites provide information about Portuguese courses and the Celpe-Bra's requirements.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)
Housing	Make it accessible on the	
Cost of living	International Student page of the UFMG website and linked to DRI and Graduate Programs –	UFMG, DRI, Graduate Programs websites + Instagram (post and
Transportation	information about housing programs/renting process/	reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube
Child Care	"repúblicas" looking for students, university facilities, grocery shopping, transportation, childcare, and other daily information needs.	(short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)

# 8.1.4 UFMG Information and Communication Technologies Improvements Recommendations

The fourth specific objective is to "deliver recommended improvements for official Information and Communication Technologies of UFMG that will enhance the enrollment and acclimation experience of International Graduate Students." In this section, the same Frames presented are the same as the general objective, which refers to the international students' information needs, referring to the Pre-arrival, Settlement, and Current stages, in sequence the suggested improvements and ICTs could be used.

Frame 18 - UFMG International Student - After arrival - 2- Settlement Stage - Information Needs - UFMG Enrollment

UFMG International Student – After arrival – 2- Settlement stage – Information Needs - UFMG Enrollment	Suggested Improvements	ICTs
Graduate Program Help Desk – general information about enrollment	Information Flow of the process followed by a list of documents (Portuguese/Spanish/English).	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages, and Instagram (post and reels)
DRI Host event – Buddy system, cultural activities and other topics	Disseminate the event previously with schedule of activities (Portuguese/English).	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)
Scholarship Procedures (it may differ depending on the type of International Exchange Program)	Information Flow of the process followed by a list of documents (Portuguese/Spanish/English).	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages, and Instagram (post and reels)
Federal Police, CPF, Bank (bureaucratic procedures)	Disseminate International Student Guide (digital version).	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures)

Frame 19 - UFMG International Student – 2- Settlement Stage – Daily Information Needs

UFMG International Student – 2- Settlement stage – Daily Information Needs	Suggested Improvements	ICTs
Housing/ "Repúblicas"		
Medical Care back up (it may differ depending on the type of International Exchange Program)	Add this type of information to DRI	UFMG, DRI, Graduate Programs websites + Instagram (post and
BH/UFMG Traffic and Transportation	International Student Guide (digital version) – update it each semester	reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog)
Telephone companies	or according to necessity.	and Flickr (UFMG pictures)
Food – grocery store and supermarkets		
Brazilian culture support	Consult Buddy system supporters (usually Brazilian).	Keep creating a Facebook group each semester with all the recently arrived students. The sector "Acolhimento International" from DRI already does it.
Portuguese Classes and Celpe-Bras	Check Portuguese for Foreigners – CENEX/FALE – UFMG.	http://www.letras.ufmg.br/portugues eforforeigners/
UFMG International Student Community	UFMG official international page on Facebook, Instagram, and link to YouTube.	Facebook group or "Rede de Oportunidades."
Co-national International Student Community	International Students should check if there is a co-national online community in BH. Send updated link to DRI. A list with the links of these communities should be posted on UFMG ITCs.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures).

Frame 20 - UFMG International Student - 2- Settlement Stage - Academic Related

UFMG International Student – 2- Settlement stage – Academic Related	Suggested Improvements	ITCs
Attending Classes	Graduate Program Buddy system –	The Graduate Program Buddy
Library	the Graduate Programs could create a similar buddy system as DRI when a graduate student is responsible for tutoring the international student throughout	system could be disseminated on the Graduate Program website, followed by its own Facebook page and Instagram (every semester). In addition, the Graduate Program
UFMG Campus and Graduate Program Facilities		

UFMG International Student – 2- Settlement stage – Academic Related	Suggested Improvements	ITCs
"Minha UFMG" – UFMG Students data base	the semester. It is a chance for the students to improve their language culture skills and expand	Help Desks would introduce the senior students interested in helping the international students.
Meeting the Advisor/Research Process	networking. This action would work simultaneously with the DRI Buddy	neiping the international students.
Meeting the Research Group/Lab	system. The senior graduate student would guide the international student throughout the semester in matters regarding the subjects, classes, Library, Graduate Program facilities, Moodle (Minha UFMG), advisor relationship, and research group interaction.	
CNPQ and Capes report at the end of each semester	A list of recently arrived and senior international students with their Linked In profiles could be available digitally, followed by the links to their co-national communities. The more experienced students would advise the new international students to make the first CNPQ/Capes reports. The advisor would monitor it.	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages, and Instagram (post and reels).
Career and Professional Development	Senior and Alumni students could leave their Linked In profiles for personal advising. In addition, lectures could be organized during internal Graduate Programs events.	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages, and Instagram (post and reels).

Frame 21 - UFMG International Student – 3- Current Stage – Information Needs

UFMG International Student – 3- Current stage – Information Needs	Suggested Improvements	ICTs
Daily information needs (changes through time)	Frame 18	
Academic-related needs (new at each semester)	Frame 19	

UFMG International Student – 3- Current stage – Information Needs	Suggested Improvements	ICTs
Recreation (favorite activities)	DRI organizes integration activities at the beginning of each semester. Short trips are organized to show the city and surrounding areas of BH. UFMG International Student community Facebook page could market cultural activities	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr (blog) and Flickr (UFMG pictures).
Brazilian Student Visa annual renewal – Graduate Program documents – Federal Police	A list of recently arrived and senior international students with their Linked In profiles could be available digitally, followed by the links to their co-national communities. The more experienced students would advise the new international students to make the first CNPQ/Capes reports. The advisor would monitor it.	Graduate Program website (Portuguese/Spanish/ English) along with its own Facebook, Linked In pages and Instagram (post and reels).

Frame 22 highlights the problems reported by the literature, interviewees, and survey respondents about UFMG Information and Communication Technologies. There are improvements suggested for each problem, the ICTs that could be applied and if the service is already available at UFMG, which may be positive, negative, or partially offered.

Frame 22 - Problems Reported - Literature, Semi-structured Interviews, and Survey - Suggested Improvements - ICTs

Problems reported – literature, semi-structured interviews, and survey	Suggested Improvements	ICTs	Services already available at UFMG
When processes and documents are not clear to UFMG workers	Use the "BPM Acadêmico <sup>11</sup> ". This project was implemented at Science Information School to clarify the management process and optimize the working environment.	-	X
E2 mentioned that only the Graduate Program Help Desk secretary knew about it when she arrived. There was no communication from PEC-PG (CNPQ/Capes) to the Graduate Program and DRI back and forth.	CNPQ/Capes could create a platform with the Graduate Program and the student access and basic information, including the date of arrival in the new country. Brazilian students use this platform to study abroad called "Linha Direta." The UMD Information Flow shows it.  CNPQ/C website — communic "Linha D		Partially
Management process and documents involved in the international student enrollment.	E1 suggested an Internal Brochure for the Graduate Programs Help Desk (Portuguese/English/Spanish) and DRCA – printed and digital version.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr and Flickr.	-

An extension project started in 2017 at the School of Information Science (ECI) of the Federal University of Minas Gerais (UFMG) entitled Academic BPM: mapping and modeling business processes. This project's scope is to map, survey, review, and restructure the processes of each sector that make up the institution to alleviate future management problems identified by the direction and improve the performance related to internal activities. Thus, improving service to the academic community, it serves.

Problems reported – literature, semi-structured interviews, and survey	Suggested Improvements	ICTs	Services already available at UFMG
From the data collected, there is a lack of knowledge about the International Student Guide (DRI) of Graduate Programs and students who arrive.	Dissemination of the International Student Guide that DRI already produces.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr and Flickr.	X
Lack of knowledge about DRI cultural activities, housing, assistance, and Buddy system from the Graduate Programs perspective. It was mentioned by E1 that international undergraduate students have more support than international graduate students.	Dissemination of the projects and support offered by DRI to the Graduate Programs. Add DRI link (Portuguese/Spanish/English) to the Graduate Programs websites. Mehra and Bilal (2007, p. 10) suggest more effective dissemination strategies about support services available for international students, especially during admission to academic programs and arrival on campus.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr and Flickr.	X
Overall, there is no communication between international students and DRI/UFMG departments to get involved in the international students' needs.	The university may also consider including surveys of information needs and related challenges in their orientation programs for incoming international students. This could serve as an assessment of user needs and provide information for further service planning. (SIN, 2015, p. 23) One possible suggestion is to provide an online knowledge database that stores past Q&A specific to the host institution. (SIN, et al., 2011, p. 3).	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr and Flickr.	-

Problems reported – literature, semi-structured interviews, and survey	Suggested Improvements	ICTs	Services already available at UFMG
Any student of the data collected did not report it. However, the literature points out the need of the University Libraries to adapt to the international students and researchers that may reach the facilities or platforms.	For example, the Helping Hand Project, a collaborative effort between Oregon State University and the International Cultural Services Program, translated a two-page handout about library services into fourteen different languages to acquaint nonnative English speakers with these services in a language they understand. Such efforts help to lessen language barriers for international students during their initial library use and may contribute to their retention in academic institutions (CHAU, 2002-2003 apud MEHRA, BILAL, 2007, p. 3).	Graduate Programs and Libraries websites	It cannot be affirmed that there is not any library at UFMG that has already been offering this service.
E8 reported the difficulty of finding other UFMG international students. There is not a community formed by students that would support each other.	Rede de Oportunidades - Opportunities Network (https://sistemas.ufmg.br/perfil/home.faces). It is a UFMG social network to connect students and alumni to job opportunities. However, it could be adapted to be more used by students and connect them, forming a national and international community inside it.	UFMG, DRI, Graduate Programs websites + Instagram (post and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video) + Link to Tumblr and Flickr.	Partially
"[] I know colleagues who were in very complicated situations () The psychological care with a follow-up, because there are several that sometimes end up, even dropping out of studies, for lack of psychological follow-up () I believe that mental health and the physical part as well should receive some kind of concern" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).	This kind of support is already available to UFMG students, workers, family, and friends (https://www.ufmg.br/saudemental/)  Programs websi Instagram (post reels) + Facebox (post) + Linked (post) + Linked (post) + Medium + YouTube (structure)		X

Problems reported – literature, semi-structured interviews, and survey	Suggested Improvements	ICTs	Services already available at UFMG
The survey comments about housing, cost of living, and other topics - "I was very lost on where I was going to go, thinking I would stay in the housing, but it turned out that graduate students cannot stay in the student housing" (Survey, anonymous respondent) "More information about the city, where to live, prices, cost of living in general" (Survey, anonymous respondent)	The DRI has departments whose function is to deal with international students and researchers' housing, including other helpful information. These services need to be more disseminated, primarily through the Graduate Programs.	UFMG, DRI, Graduate Program websites + Instagram (posts and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video).	X
There was a need for financial support, bus routes, and children assistance, such as this comment from the survey - "During my stay at UFMG, I looked for it, but I couldn't find support with some additional help, which people could have after the scholarship, and those other students, especially from Minas Gerais, certainly had more significant support. For example, to be more participative with economic support in research projects, rent, and new bus routes, but I didn't find it. I had two small children in my case, and I had no information or support for them to enter UMEI or UFMG college, for example."	Through DRI, it is possible to discover many possibilities to explore UFMG the best way. Nevertheless, this type of information should be disseminated on an international student page on the UFMG website and Graduate Programs. Furthermore, the extra-economic support should be checked directly with the students' advisors.	UFMG, DRI, Graduate Program websites + Instagram (posts and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video)	Partially
A survey respondent mentioned future career plans after the Master's - "Sometimes, I felt that my Master's was too focused on the academic side, something I find complicated because most students will not become professors but rather work in the private sector."	The same student/respondent suggested a solution – "To Create a department or program to help with the transition between graduate degrees and entering the workforce." The Graduate Programs could promote lectures from Alumni students that are already working in the industry and in the academic field to enlighten the current Graduate students	UFMG, DRI, Graduate Program websites + Instagram (posts and reels) + Facebook (post) + Linked In (post) + Medium (text) + YouTube (short video)	It cannot be affirmed that there is not any Graduate Program at UFMG that has already been offering this kind of orientation.

# **8.2** Final Considerations

An international student journey is usually led by active search, which according to Wilson (1997), is "where an individual actively seeks out information." In the international student's context, this is more predominant during the Pre-arrival and Settlement stages, although the information needs in a new country are always evident. During the Current stage, besides the active search, the international student also practices the ongoing search "where active searching has already established the basic framework of knowledge, ideas, beliefs or values, but where occasional continuing search is carried out to update or expand one's framework" (WILSON, 1997). A Survey respondent confirms this thought by saying, "In fact, I did not even know that UFMG facilitated this information. We migrants know that conditions outside a country will always be difficult and, therefore, we have made it into our minds that we must always be active in the search for information on our account".

Regardless of this background, the university has a significant role in receiving these students and giving them support. Oh, Butler and Lee (2014, p. 8) corroborate this idea.

New international graduate students share some information needs and their information needs change over time, shifting from survival to recreation. These findings imply that information that is necessary and important to international students may follow predefined and predictable patterns. Based on this finding of their priorities of information during their transition, it is suggested that information organizations and academic institutions can design their services or programs for international graduate students in a way to better help inform them and get them settled in the unfamiliar environment.

Considering this context, the main objective of this research is to understand and map the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG to contribute to the institution's education internationalization process. This objective was accomplished along with the other four specific objectives 1- Information Flow - enrollment at a UFMG Graduate Program; 2- Mapping of support networks; 3- Solutions Proposal to Attract New International Candidates considering their information needs; and 4- UFMG Information and Communication Technologies Improvements Recommendations.

The thesis is divided into Part I – Theoretical Framework and Part II – Empirical Research. The literature review carried out in this study consisted of four steps – 1° UFMG, 2° UMD, 3° UFMG, and 4° UFMG. From this perspective, the literature review was based on four theoretical pillars: Human Informational Behavior, Internationalization of Higher Education, Information

Behavior of International Students, and Internationalization of Brazilian Universities - Graduate Programs. According to Information Science, the research has an interdisciplinary character, involving concepts and techniques from two areas of knowledge: Information Science and Internationalization of Education. Due to the scarcity of studies about international graduate students' information needs, the search for publications was first supported by the relevance of the retrieved documents, regardless of the year of publication.

After going through the four steps mentioned, the Theoretical Framework was based on four pillars: Human Information Behavior, Higher Education Internationalization, International Student Information Behavior, and at last, Higher Education Internationalization in Brazil – Graduate Programs.

A general description explains the methodological steps taken to achieve the objectives proposed. The research was distributed into two parts, Exploratory Phase, and Empirical Phase. The Exploratory Phase is subdivided into 1° UFMG and 2° UMD. The Empirical Phase is subdivided into 3° UFMG – Data Investigation, and 4° UFMG Information and Communication Technologies Improvements Recommendations.

Design Science Research (VAISHNAVI & KUECHLER, 2015) was the methodology associated with Mixed methods (CRESWELL & CLARK, 2021). Only two steps of the DSR were planned to be achieved. 1- Awareness of Problem applied during the Exploratory Phase and 2-Suggestion applied during the Empirical Phase.

There was a qualitative data collection through nine semi-structured interviews—five with PEC-PG students and four with Other Program students. For the quantitative data collection, there were 57 questionnaires answered. However, only 51 were analyzed.

According to the Theoretical Framework section, the semi-structured interviews script and the Survey were developed based on the literature review and the chronological stages international students face: Pre-arrival, settlement, and Current stages. After the data analysis, the most relevant results are:

a) There are different reasons to choose a university, but its reputation is undoubtedly one of them. The factors are associated with other reasons, such as an international community available, university support, scholarship funding, common research interest, personal relationships. Chen (2007) clarifies it on his study:

The four key influences of the choice of an institution are: (1) external push – pull factors associated with academic pulling factors (e.g., quality, reputation / ranking, research, and faculty), (2) external push – pull factors associated with administrative pulling factors (e.g., financial aid, tuition, admissions, marketing, and information), (3) external push – pull factors associated with environment and location, and (4) significant others (CHEN, 2007, p. 283).

- b) The interviewees that had had a previous experience in Brazil as a PEC-G student during the undergraduate course had more self-awareness of how to deal with the issues that came up.
- c) There were discrepancies in some opinions about whether information exists on the official UFMG channels. However, others mentioned the need to disseminate this information. About the visa, for example.
- d) International Students consider social networks as a source of information, it is used during the Pre-arrival, settlement, and Current stages. The purpose to use them is due to different kinds of information needs. However, they are used along with UFMG and the Graduate Program website. Usually, the students associate the information sources.
- e) The international students keep more in touch with Brazilians and people from the same country using WhatsApp/Telegram, Facebook-Messenger, E-mail, and Telephone.
- f) To have institutional support besides an international community, not necessarily from the same country may be very helpful. It supports the international students emotionally, keeping a good mental health and as a culture assistance.
- g) Daily information needs are always significant on the three stages of the exchange program. They might change through time. These type of information needs includes Cost of living, housing, traffic and transportation, grocery shopping, recreation, health care, academic-related (classes, library, research process, advising, among others), childcare and other personal topics.
- h) The biggest challenges described by the international students were Portuguese and cultural aspects involved, financial problems, COVID-19 pandemic, housing, to make friends with people from Minas Gerais "Mineiros", Brazilian bureaucracy, and logistics to move around Belo Horizonte and UFMG
- i) The Graduate Programs Help Desk is one of the most reliable information sources for the international students. In some cases, they become friends with the secretaries, since they need documents to renew the visa annually. In some cases, the advisors were also a support about bureaucracy. The students that also had a co-national community, would consult peer/senior students as well.

The main thoughts regarding the final considerations of this thesis are:

- a) Most of the articles used as a theoretical framework are international, describing circumstances in European countries, the USA, and Canada. Even though these places are traditionally the first choices of international students, there were similarities and peculiarities in the informational needs of UFMG graduate students. This context confirms the need for greater attention to this audience in support of their international experience; furthermore, the public's needs in Brazilian universities.
- b) It is a network of processes: International student Consulate Capes/CNPQ UFMG DRI <> PPG Country of Origin and Brazil UFMG DRI <> PPG <> PRPG DRCA Federal Police Bank. All these instances communicate directly or indirectly depending on the student's Exchange Program. According to the type of documentation, the student's interaction with the instances alternates between digital and face-to-face processes.
- c) The Department of Computer Science and the Department of Demography did an excellent job of support and information flow according to E7 and a survey respondent.
- d) Students who have support from the Brazilian Consulate or Embassy in their country of origin tend to arrive in Brazil in a more structured way (contacts, housing, and bureaucratic procedures) such as E4 from Benin, for example.
- e) As for the university, Capes, and processes management, it was concluded that the university, as an educational institution, encompasses its professors, employees, and researchers as essential collaborators that enable a reference for the university that receives students. Therefore, the recommendation is for the university to combine management processes with communication tools involving the institution's employees. The intention is to create a cycle of autonomy for students, from access to the university's website to the communication channels of the Graduate Program, such as social networks and other means of serving the public.
- f) Capes and Graduate programs are interested in the internationalization process, interacting with researchers from universities around the world, enabling the development of research in different areas. The need for the internationalization of Graduate Studies must go beyond the contact networks of professors with universities abroad. The process must also occur through the dissemination of publications, participation in events, co-tutela, exchange of professors and students, partnership in publications, among other actions.

- g) About the quality of disseminated information, it is necessary to have institutional support from universities and public policies that support the reception and the entire process of international student exchange. In this context, the information disclosed to Graduate candidates at a Brazilian university is highly relevant at all stages of the process. In this case, sources, and tools for disseminating information by the university are fundamental for the graduate candidate upon arrival in Brazil and during his/her adjustment period. Furthermore, the information disclosed by the university should preferably be in more than one language, having English as the second language since it is considered the reference language in the academy.
- h) The quality of the type of information active students' access and the easiness of finding this information affect their adaptation and life quality. This context may reflect on studies and academic productivity, with negative impacts. In addition, there are several challenges faced by international students during the adaptation period, from housing, transport, food, services, health, among others. Therefore, they must be studied as diverse groups.
- i) Regarding the acquisition and use of information, there is a difference in the use of information by newly arrived students, who already have a network (international community) of contacts with other students from the same country, studying at the receiving university, among students who do not have this support network (International-less-common). Furthermore, it makes a difference for the possible graduate candidate to obtain information from alumni students and active students, especially concerning the structure of the host university and the city where it operates.

In short, "friends," who were mostly co-national senior or peer students, were the main information sources for most kinds of information. However, several information sources were also used by many others in seeking certain types of information. Those sources include online communities that were used for seeking housing and living information and online/mobile maps for seeking geospatial/transportation information. Also, official university sites or emailing services were used by many participants as main sources for seeking information essential to new students. These results show international students' high reliance on friends as information sources and confirm the active use of various Internet-based information sources for different types of information. (OH; BUTLER; LEE, 2014, p. 7)

j) Furthermore, when the student arrives to study, he will need other information necessary to establish himself/herself, such as housing, transport, groceries, health care, the internal

structure of the university's functioning, among others. Interestingly, official university channels should provide information on practical everyday issues. Reception events for international students can influence the way they acquire information, especially during the Settlement stage.

The subsequent sections will present the main contributions of this research, its limitations, and future work.

#### 8.2.1 Main Contributions

This research has contributed to a better understanding of international graduate students' information needs, which has a lack of focus and collaborate to the internationalization of UFMG in different ways, through:

- a) Guide stakeholders (researchers and workers from Brazilian universities) involved in the Education Internationalization topic to comprehend UFMG international students' information needs.
- b) Its Theoretical Framework could be used as a reference for the International Education field and Information Science, as well.
- c) The solutions proposal presented here may be tested in real-life environments.
- d) It can be used as a reference for the topic of "Internationalization" of the next UFMG Institutional Development Plan.
- e) The research may project UFMG image internationally, as a Brazilian university, that is inclusive, capable of producing research with quality, based also, on the different cultural background of the student body that it attracts.
- f) Stimulate the internal graduate programs to be opened to raise academic patterns to promote themselves, creating new research opportunities and improving the curricula.
- g) Contribute to UFMG sectors' work converging all the information necessary to the international graduate students, when organizing its dissemination.
- h) Give informational and practical support to the recently arrived graduate students in addition to the actual ones, interconnecting them either as compatriots or common area of study, associating the website to other social media networks.
- i) This work will contribute to the continuity of the partnership between the School of Information Science (ECI), the Organization, and Knowledge Management Graduate Program, and the DRI,

through future research that may help to improve the management of information in the sector, mainly related to international and Brazilian students.

#### 8.2.2 Research Limitations

UFMG has been planning and working very fast towards positive internationalization actions. As a result, there have been significant constructive changes since the beginning of this Ph.D. course in 2017. Although, this section presents the research limitations of this thesis.

- The expression "international student" (estudante internacional) showed evidence of not clarifying the student's origin. After the first stage of disseminating the questionnaire, in Portuguese, I was asked by emails and messages if the Brazilian student studying abroad should answer the questionnaire. One of the messages stated that he only realized that they were not for Brazilian students because of the questions in the survey. In another case, I received a message that said he had not responded because he was Brazilian but wished me success in the research. Until that moment, three Brazilians had answered the questionnaire. In this case, another 2 Brazilians responded. Therefore, when checking the answers, the number of Brazilians had risen to 5. Due to the above scenario, I chose to write "International Graduate Program Student (Foreign/estrangeiro)" in the title of the email in the second release of the questionnaire. Despite foreign and national literature using the expression "international student," it appears that even using it in a context, the expression can present different interpretations. In contrast, a Brazilian Graduate student who studies part of the Master's or Doctorate at a university abroad can also be considered an international student. In this case, the comprehension of the expression "international student" among UFMG students may be a limitation of this study.
- b) There were nine interviewees, seven were male and two were female. The same thing occurred on the Survey, most of the respondents were male sixty-eight-point-six percent, thirty-five of the responses. On the other hand, the female group is of thirty-one-point four percent, corresponding to sixteen respondents. It has already been mentioned that the interviewees participated voluntarily and are part of the researcher's networking. Since it was not possible to have access to the international students' data base, it is challenging to compare the numbers to direct to a more concrete conclusion, it can be considered a limitation of this research.

- c) Regarding the interviews, we consider that categorization is a highly personal work, although supported by the literature. The categorization proposal presented in the thesis underwent several reanalyzes and regroupings based on a better understanding of the research theme. We emphasize that other researchers may have differing opinions around the proposed categorization. Thus, subjectivity and divergence in categorization can be considered a limitation of this study.
- d) While some information was being collected throughout this research, UFMG was working towards internationalization actions. In this case, some of the information here exposed may be considered obsolete already.
- e) DRI year report available on its website, is in the Institutional / Team / Operational and Information Management tab, a Management Report from 2014 to 2018. Although, data for international students of Graduate Programs are not concentrated in a specific topic.
- f) It was not possible to access the contact data of current international graduate students since it is considered sensitive personal information.
- graduate students, as well as other functions. This occurred in 2020, until that time, this activity had been performed by DRI. The contact with both sectors to understand how the transition of the graduate student's management occurred was not possible. Consequently, it has been considered so far, one of the limitations of this study since it is difficult to understand it from outside. The PRPG International Affairs Office was contacted via email and the latest data of these students was requested, but no response has been obtained so far. Both departments and their isolated functions are defined on Section 2.2.
- h) There is a difference between the international thesis format and the Brazilian thesis format regarding the School of Information Science at UFMG. There is no international dissertation and thesis format as a reference. This was a discovery point of this research. Despite the studies in English and all the use of the material in a foreign language. There is a perspective of defining and structuring an international format for those who want to write a thesis and a dissertation in a foreign language, which must be approved by the School of Information Science. Although there have already been different cases of thesis written in English, they prioritized the Brazilian format, the format of the School of Information Science, approved by the Course Board (Colegiado). They were written according to the Brazilian research standard

but translated into English. There should be a prior study and the approval of the School of Information Science to take this further, as a valid and internationally accepted format. This was not an objective of this research, but it was discussed during the defense and highlighted as a limitation, related to future thesis and dissertations, which opens the possibilities for future studies.

#### 8.2.3 Future Studies

For future studies prevenient from this research, there are some suggestions:

- a) Apply the same guidelines of this research to other universities private and public Brazilian universities to identify the characteristics and information needs of the international students that study there.
- b) Apply the same guidelines of this research to other universities worldwide, respecting the institution individual context to diagnose the characteristics and information needs of the international students that study there.
- c) Deepen studies through the launch of questionnaires to verify international students' information needs and demands. In addition, apply the same criteria for Brazilian students who will study at universities abroad but remain linked to UFMG. A Brazilian student suggested this action in an email sent to the researcher in the data collection stage of the questionnaire.
- d) Test all solution proposals and see if they are viable. According to Design Science Research, Awareness of the Problem and Suggestion steps were performed, the following steps would be Development, Evaluation, and Conclusion.

The revelations in this research indicate how the topic is complex, essential, and requires more profound studies. It is expected that practical initiatives are evidenced from these studies.

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#### APPENDIX A – SEARCH STRINGS

"cross-cultural web design" AND "localization web site"; "web design transcultural" AND "localization web site"

"design science research" AND "cross-cultural communication"; "design science research" AND "comunicação transcultural"

"design science research" AND "cross-cultural web design"; "design science research" AND "web design transcultural"

"design science research" AND "intercultural communication"; "design science research" AND "comunicação intercultural"

"design science research" AND multicultural

"foreign student" AND "intercultural communication"; "estudante estrangeiro" AND "comunicação intercultural"

2.1- "higher education internationalization" AND "cross-cultural communication"; "internacionalização do ensino superior" AND "comunicação transcultural"

"higher education internationalization" AND "cross-cultural web site"; "internacionalização do ensino superior" AND "web site transcultural"

"higher education internationalization" AND "cross-cultural web design"; "internacionalização do ensino superior" AND "web design transcultural"

"information problem solving" AND "cross-cultural communication"; "solução de problema informacional" AND "comunicação transcultural"

"information problem solving" AND "cross-cultural user experience"; "solução de problema informacional" AND "experiência do usuário transcultural"

"information problem solving" AND "cross-cultural web design"; "solução de problema informacional" AND "web design transcultural"

"Information Science" AND "cross-cultural communication"; "ciência da informação" AND "comunicação transcultural"

"Information Science" AND "cross-cultural user experience"; "ciência da informação" AND "experiência do usuário transcultural"

"Information Science" AND "cross-cultural web design"; "ciência da informação" AND "web design transcultural"

"Information Science" AND "intercultural communication"; "ciência da informação" AND "comunicação intercultural"

"intercultural communication" AND "education internationalization"; "comunicação intercultural" AND "internacionalização da educação"

- "intercultural communication" AND "information management"; "comunicação intercultural" AND "gestão da informação"
- "intercultural communication" AND "'Information Science""; "comunicação intercultural AND "ciência da informação"
- "intercultural communication" AND "international student; "comunicação intercultural AND "estudante internacional"
- "international student" AND "intercultural communication"; "estudante internacional" AND "comunicação intercultural"
- "cultural intelligence" AND "foreign student"; "inteligência cultural" AND "estudante estrangeiro"
- "cultural intelligence" AND "international student"; "inteligência cultural" AND "estudante internacional"
- "design science research" AND "education internationalization"; "design science research" AND "internacionalização da educação"
- "design science research" AND "higher education institution"; "design science research" AND "instituição de Ensino superior"
- "design science research" AND "information problem solving"; "design science research" AND "solução de problema informacional"
- "design science research" AND "information use"; "design science research" AND "uso da informação"
- "design science research" AND "information use for learning"; "design science research" AND "uso da informação para aprendizagem"
- "design science research" AND "international student"; "design science research" AND
- "design science research" AND "localization web site"
- "design science research" AND "social networks"; "design science research" AND "redes sociais"
- "design science research" AND "student exchange program"; "design science research" AND "estudante de intercâmbio"
- "design science research" AND "user experience"; "design science research" AND "experiência do usuário"
- "foreign student" AND Brazil; "estudante estrangeiro" AND Brasil
- "higher education internationalization" "AND Brazil; "internacionalização do Ensino Superior" AND Brasil
- "higher education internationalization" "AND "information management"; "internacionalização do Ensino Superior" AND "gestão da informação"

"higher education internationalization" "AND ""Information Science""; "internacionalização do Ensino Superior" AND "Ciência da Informação"

"higher education internationalization "AND "social networks; "internacionalização do Ensino Superior" AND "redes sociais"

"Human Computer Interaction" AND culture; "interação humano-computador" AND "cultura"

"Human Computer Interaction" AND ""Information Science""; "Interação Humano-Computador" AND "Ciência da Informação"

"Human Computer Interaction" AND international student; "Interação Humano-Computador" AND "estudante interncional"

"Human-Centered-Design" AND culture; "Design centrado no usuário" AND cultura

"Human-Centered-Design" AND "Human Computer Interaction"; "Design centrado no usuário" AND "Interação Humano-Computador"

"Human-Centered-Design" AND information; "Design centrado no usuário" AND informação

"Human-Centered-Design" AND ""Information Science""; "Design centrado no usuário" AND "Ciência da Informação"

"Human-Centered-Design" AND "international student; "Design centrado no usuário" AND "estudante internacional"

"information problem solving" AND "information use"; "solução de problema informacional" AND "uso da informação"

information problem solving AND social networks; "solução de problema informacional" AND "redes sociais"

""Information Science"" AND culture; "Ciência da Informação" AND cultura

""Information Science" AND "education internationalization"; "Ciência da Informação" AND "internacionalização da educação"

"Information Science" AND "exchange program" "Information Science" AND "foreigner student" "Information Science" AND "information problem solving" "Information Science" AND "information use" "Information Science" AND "international student" "Information Science" AND "localization web site" "Information Science" AND "user experience" "international student" AND Brazil "international student" AND "social networks"; "Ciência da Informação" AND "programa de intercâmbio" "Ciência da Informação" AND "estudante estrangeiro" "Ciência da Informação" AND "solução de problema informacional" "Ciência da Informação" AND "uso da informação" "Ciência da Informação" AND "estudante internacional" "Ciência da Informação" AND "localization web site" "Ciência da Informação" AND "experiência do usuário" "estudante internacional" AND Brasil "estudante internacional" AND "competência informacional" "estudante internacional" AND "redes sociais".

## APPENDIX B – INTERVIEW INFORMED CONSENT FORM

#### TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO

Prezado(a) Senhor (a),

Você está sendo convidado(a) a participar de uma pesquisa de cunho acadêmico do Programa de Pós-Graduação em Gestão e Organização do Conhecimento da UFMG, intitulada "As características e necessidades informacionais dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais" que tem como objetivo principal, compreender as características e necessidades de informação dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais - UFMG, a fim de contribuir para o processo de internacionalização da educação da instituição.

A pesquisa está sendo realizada pela discente Danielle do Carmo Pimenta Rioga, matrícula nº 2017659970 sob a supervisão e orientação da Professora Dra. Renata Maria Abrantes Baracho e co-orientação do Professor Dr. Dagobert Soergel. Para alcançar os objetivos do estudo será realizada uma entrevista individual, via videoconferência, sendo o áudio gravado, em dia e horário de sua conveniência, com tempo estimado em uma hora de duração. Se possível, ela será realizada pessoalmente, em condições seguras com relação à pandemia. Os nomes dos participantes serão preservados, bem como dados pessoais, sendo utilizadas apenas os demais dados. Ressalta-se que esta participação é voluntária e não será remunerada de nenhuma forma pelas pesquisadoras.

Esta pesquisa prevê leves riscos emocionais, uma vez que, o participante pode se sentir desconfortável com o conteúdo das perguntas. Caso isso ocorra, a entrevista será interrompida, o participante receberá suporte emocional do pesquisador e, se necessário e se for da vontade do entrevistado, a entrevista será cancelada, podendo o participante ser desligado do estudo sem nenhum ônus.

Além disso, a pesquisa apresenta riscos associados à exposição, já que a confidencialidade do entrevistado não pode ser plenamente garantida pelos pesquisadores, que precisam referenciar em seu trabalho sua idade, gênero, nacionalidade, questões culturais, familiares, país de origem, tempo de residência em Belo Horizonte, juntamente, com o processo de adaptação e integração à cultura brasileira. Se após realizada a entrevista, o entrevistado decida retirar-se do estudo ou necessite de quaisquer outros esclarecimentos sobre o mesmo, favor contatar-me, pessoalmente ou através do telefone ou e-mail informados neste Termo. Caso seja necessário, a pesquisadora poderá facilitar o contato entre o entrevistado(a) e o serviço de atendimento psicológico, ofertado pelo Departamento de Psicologia.

Seu nome será sempre omitido e não será usado na divulgação dos dados, sendo utilizada a nomenclatura "Entrevistado(a)", associada a um número, para quaisquer referências ao senhor(a). Garanto a confidencialidade dos registros, comprometendo-me a manter os arquivos sob minha guarda para eventuais trabalhos futuros, por prazo máximo de 5 (cinco) anos e após, totalmente destruídos (conforme preconiza a Resolução nº466/2012). Os trabalhos futuros serão a tese de doutorado e artigos científicos.

O(a) senhor(a) não terá nenhum gasto com a sua participação no estudo e também não receberá nenhum pagamento pela mesma. Caso haja danos decorrentes da sua participação na pesquisa, você tem direito a assistência e a buscar indenização. O participante da pesquisa estará contribuindo para o campo de conhecimento na área da Ciência da Informação e Internacionalização da Educação, além de auxiliar nas pesquisas para desenvolvimento interno do processo de internacionalização das universidades brasileiras.

Para participar da pesquisa é necessário que o candidato a participante esteja de acordo com este termo e tenha suas dúvidas sanadas sobre todos os aspectos pertinentes da pesquisa, que lhe interessem e devam ser explicitados seguindo o rigor da legislação.

Rubrica do participante:	_ Rubrica da Pesquisadora:
Uma vez gravada a entrevista, e cor	m a anuência do entrevistado, ela será compilada e apresentada
para sua avaliação, por meio da transcrição	digital e liberação, ou não, do uso deste material na pesquisa
proposta.	
Ressalta-se que esta participação é	e voluntária e não será remunerada de nenhuma forma pelas
pesquisadoras.	
Eu,	
recebi as informações sobre os obje	tivos e a importância desta nesquisa de forma clara e concordo

recebi as informações sobre os objetivos e a importância desta pesquisa de forma clara e concordo em participar do estudo. Declaro que também fui informado(a):

- Da garantia de receber resposta a qualquer pergunta ou esclarecimento acerca dos assuntos relacionados a esta pesquisa;
- De que minha participação é voluntária e terei a liberdade de retirar meu consentimento a qualquer momento e deixar de participar do estudo sem que isto traga prejuízo para a minha vida pessoal e nem para o atendimento prestado a mim;
- Da garantia que as informações serão utilizadas somente para fins científicos do presente projeto de pesquisa;

- Sobre o projeto de pesquisa e a forma como será conduzido, em caso de dúvida ou novas perguntas poderei entrar em contato com as pesquisadoras: Danielle do Carmo Pimenta Rioga, endereço: Rua Conselheiro Joaquim Caetano, nº 1225- ap 302, Nova Granada, Belo Horizonte, MG, CEP 30.431-320. Telefone: (031) 98865-6147, E-mail: daniellerioga@gmail.com; e Renata Maria Abrantes Baracho, endereço: Av. Antônio Carlos 6627 C.P. 1606, Pampulha, Belo Horizonte, MG, CEP 30.161-970. Telefone: (31) 99984-3062, E-mail: renatabaracho@ufmg.br
- E que quaisquer outras dúvidas quanto às questões éticas, poderei me informar no COEP Comitê de Ética em Pesquisa da UFMG, endereço: Avenida Presidente Antônio Carlos, no 6627, Pampulha Belo Horizonte, MG, CEP 31270-901, Unidade Administrativa II 2º Andar Sala: 2005. Telefone: (031) 3409-4592, E-mail: coep@prpq.ufmg.br.

Declaro que recebi uma via deste Termo de Consentimento Livre Esclarecido (02 laudas), já assinada eletronicamente pela pesquisadora e retornei a mesma via digital, após assiná-la eletronicamente.

Assinatura do Partici	pante			
Assinatura da Pesqui	sadora			
Belo Horizonte,	Ċ	le	de	

#### APPENDIX C - INTERVIEW SCRIPT

- 1) Questions/Perguntas Interviews/Entrevistas PEC-PG
- 2) Why did you decide to apply for PEC?/ Porque você decidiu tentar a seleção do PEC? A escolha do PEC-PG/ The choice for PEC-PG
- 3) Please, tell me about your first contact with the PEC public tender./ Por favor, me fale sobre seu primeiro contato com o edital do PEC Primeiro contato com o Edital/ The first contact with the Public Tender
- 4) When you read the PEC public tender to understand the process, were all the information clear for you? / Quando você leu edital do PEC, você entendeu todo o processo, todas as informações ficaram claras para você? Compreensão do Edital/ Public Tender Comprehension
- 5) Did you have to contact CAPES or CNPQ to ask any question?/ Você precisou entrar em contato com a CAPES ou o CNPQ para fazer alguma pergunta? Contato para sanar dúvidas/ To make contact to clear something up
- 6) How was the process of filling out your Lattes CV on the platform?/ Como foi o processo de preenchimento do seu Currículo na plataforma do Lattes? Preenchimento do Currílo Lattes/ Lattes CV filling out
- 7) Did you apply through Capes or CNPQ? / Você se inscreveu através da Capes ou do CNPQ?
- 8) How was it?/ Como foi? Seleção via Capes ou CNPQ/ Application through Capes or CNPQ
- 9) Right after you were approved which sector from UFMG did you contact? / Logo após você foi aprovado qual setor da UFMG você contatou? Contato com Setor da UFMG após aprovação/ Contact with a UFMG Sector after being approved
- 10) How was it?/ Como foi? Descrição da experiência da aprovação/ Acceptence process experience
- 11) How were you received at UFMG? / Como você foi recebido na UFMG? Recepção na UFMG/ UFMG reception
- 12) How were the other processes you needed to do to have all the necessary paperwork to enroll as a UFMG student? / Como foram os outros processos que você precisou fazer para ter toda a documentação necessária para se inscrever como aluno da UFMG? Procedimentos para se tornar aluno(a) da UFMG/ Procedures to become a student of UFMG
- 13) How is your contact with the International Relations Board at the beginning and how is it now? / Como foi seu contato com a Diretoria de Relações Internacionais no início e como é agora? Contato com a Diretoria de Relações Internacionais/ International Relations Board contact experience
- 14) How was the process for registering as a UFMG student? / Como foi o processo para se matricular como aluno(a) da UFMG? Processo de matrícula na UFMG/ Registration process at UFMG

- 15) How was your Brazilian visa process application? / Como foi o seu processo para a obtenção do visto brasileiro? Processo do visto de estudante no Brasil/Brazilian student visa process
- 16) How was the process of taking the Celpe- Bras (Certificate of Proficiency in Portuguese for Foreigners)? / Como foi o processo de realização do Celpe-Bras (Certificado de Proficiência em Língua Portuguesa para Estrangeiros)? Celpe-Bras- teste de proficiência em Portugês/ Celpe-Bras- Portuguese proficiency test
- 17) Como foi a busca por moradia?/ How was the housing process? Busca por moradia/ Housing search
- 18) Você já precisou de algum atendimento médico em Belo Horizonte?/ Have you ever needed any medical support in Belo Horizonte when you arrived and how is it now? Atendimento Médico em BH/ Medical Support in BH
- 19) Como você interagiu com a cidade de Belo Horizonte quando você chegou e como é agora?/ How did you start interacting with the city of Belo Horizonte when you arrived and how is it now? Interação desde a chegada com BH/ Interaction with Belo Horizonte since arrival
- 20) Quais são seus lugares favoritos de ir em BH?/ What are your favorite places to go in BH? Lugares favoritos em BH/ Favorite places in BH
- 21) Quais são suas aividades favoritas em BH?/ What are your favorite things to do in Belo Horizonte? Atividades favoritas em BH/ Favorite activities em BH
- 22) O que você pode encontrar em BH, que você acha que seja similar à sua cultura?/ What can you find here in Belo Horizonte that you think it is similar to your own culture? Similaridades entre BH e cultura de origem/ Similarities between BH and own culture
- 23) O que você acha da comida típica de Minas Gerais?/ What do you think about the typical food from Minas Gerais? Comida típica de Minas Gerais/ Minas Gerais typical food
- 24) Como foi sua interação com os estudantes brasileiros da UFMG quando você chegou e como é agora?/ How was your interaction with the Brazilian students of UFMG when you arrived and how is it now? Interação com estudantes brasileiros da UFMG/ Interaction with Brazilian students of UFMG
- 25) E com outros brasileiros?/ What about with other Brazilians? Interação com brasileiros em geral/ Interaction with Brazilians in general
- 26) Como foi seu contato com os Professores no início e como é agora?/ How was your contact with your Professors at the beginning and how is it now? Interação com os Professores brasileiros/ Interaction with the Brazilian Professors
- 27) Como foi seu contato com os colegas de sala no começo e como é agora?/ How was your contact with your classmates at the beginning and how is it now? Contato com colegas de sala/ Contact with classmates

- 28) Como é seu contato com os funcionários da UFMG?/ How is your contact with the workers from UFMG? Contato com funcionários da UFMG/ Contact with UFMG workers
- 29) Como é seu contato com os funcionários do seu departamento?/ How is your contact with the faculty of your departamento? Contato com os funcionários do departamento/ Contact with the faculty department
- 30) Me conte como foi sua adaptação à cultura brasileira?/ Tell me about how you have adapted to the Brazilian culture Adaptação à cultura brasileira/ Brazilian Cultura adaptation
- 31) Como foi sua adaptação ao Português brasileiro?/ Tell me about how you have adapted to the Brazilian Portuguese Adaptação ao Português brasileiro/ Brazilian Portuguese adaptation
- 32) Durante seu Mestrado ou Doutorado, você teve que ir a algum evento acadêmico?/ During your time taking your "Master's or PhD", did you have to go away for any academic event? Evento acadêmico/ Academic event
- 33) Como você apresentou o relatório?/ How did you report it? Relatório do evento/ Event report
- 34) Você conhece alguém que tenha perdido os benfícios do PEC, porque não seguiu os procedimentos?/ Do you know anyone who lost the PEC benefits for not following all the procedures required? Perda de Benefícios do PEC/ PEC benefits loss
- 35) Como foi seu primeiro relatório de desempenho, que você deve apresentar todo semestre à Capes ou CNPQ?/ How was your first evaluation report process that you must send every semester to Capes or CNPQ? Relatório semestral da Capes ou CNPQ/ Capes or CNPQ semester report
- 36) A Capes ou CNPQ, já solicitou alguma informação adicional a você?/ Has CAPES or CNPQ ever requested any additional information from you? Informação adicional para a Capes ou CNPQ/ Capes or CNPQ additional information
- 37) Como tem sido/foi sua comunicação com a Capes, durante seu período de estudo no Brasil?/ How has been/was the communication with CAPES through Linha Direta during your time studying in Brazil? Comunicação com a Capes/ Communication with Capes
- 38) Você gostaria de fazer algum comentário?/ Would you like to make any other comment? Comentário adicional/ Additional comment
- 39) Como foi o processo de escolha e contato do seu Programa de Pós-graduação?/
  How was your choice and contact process for your Graduate Program? Escolha
  do Programa de Pós-graduação/ Graduate Program choice
- 40) Como foi ou é seu contato com outros estudantes do PEC-G ou PG?/ How has been your contact with other students from PEC-G or PG? Contato com outros estudantes do PEC / Contact with other PEC students

- 41) Como foi ou é seu contato com outros estrangeiros ou compatriotas?/ How has been your contact with other foreigners or compatriots? Contato com outros estrangeiros ou compatriotas / Contact with other foreigners or compatriots?
- 42) Qual foi seu maior desafio na experiência que você teve ou está tendo agora?/ What was your biggest challenge in the experience you had or that you are having now? Maior desafio/ The biggest challenge
- 43) Como você fazia, se precisasse comer no Campus?/ What would you do if you needed to eat at Campus? Alimentação no Campus/ Eating at Campus
- 44) Como você se locomovia dentro e fora do Campus?/ How would you go around inside and outside of Campus? Locomoção dentro e fora do Campus/ Going around inside and outside of Campus
- 45) Experiências pessoais/ Personal experiences
- 46) Pessoas que auxiliaram em qualquer etapa da sua experiência/ People that helped on any stage of your experience

## APPENDIX D – SURVEY\_INFORMED CONSENT FORM\_PORTUGUESE

# TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO - QUESTIONÁRIO

Prezado(a) Estudante internacional de Mestrado ou Doutorado da UFMG,

Você está sendo convidado(a) a participar da pesquisa "As características e necessidades informacionais dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais", vinculada ao Programa de Pós-Graduação em Gestão e Organização do Conhecimento da UFMG. A pesquisa tem como objetivo principal, compreender as características e necessidades de informação dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais - UFMG, a fim de contribuir para o processo de internacionalização da educação da instituição. A pesquisa está sendo realizada pela discente Danielle do Carmo Pimenta Rioga, matrícula nº 2017659970 sob a supervisão e orientação da Professora Dra. Renata Maria Abrantes Baracho e co-orientação do Professor Dr. Dagobert Soergel. Esta pesquisa prevê leves riscos emocionais, uma vez que, o participante pode se sentir desconfortável com o conteúdo das perguntas. Caso isso ocorra, você poderá interromper o preenchimento do Questionário, a qualquer momento. Suas informações pessoais não precisarão ser fornecidas, mantendo dessa forma, a confidencialidade da origem dos dados. Os dados obtidos serão armazenados em forma digital e impressa pelas pesquisadoras durantes 5 (cinco) anos e após, totalmente destruídos (conforme preconiza a Resolução nº466/2012). Além disso, os dados serão utilizados futuramente em publicações científicas e atividades de pesquisa. O participante da pesquisa estará contribuindo para o campo de conhecimento na área de Ciência da Informação e Internacionalização da Educação, além de auxiliar nas pesquisas para desenvolvimento interno do processo de internacionalização das universidades brasileiras. A decisão de prosseguir com o preenchimento do questionário, será considerada como consentimento à participação da pesquisa. Esse estudo conta com o apoio da Diretoria de Relações Internacionais (DRI) na disseminação do link do questionário. Para maiores esclarecimentos sobre a pesquisa, gentileza entrar em contato com:

Profa. Dra. Renata Maria Abrantes Baracho (UFMG) – renatabaracho@arq.ufmg.br

Doutoranda Danielle do Carmo Pimenta Rioga (UFMG) - danyrioga@ufmg.br

COEP - Comitê de Ética em Pesquisa da UFMG, endereço: Avenida Presidente Antônio Carlos, no 6627, Pampulha - Belo Horizonte, MG, CEP 31270-901, Unidade Administrativa II - 2º Andar - Sala: 2005. Telefone: (031) 3409-4592, E-mail: coep@prpq.ufmg.br

Para obter uma cópia do Termo de Consentimento Livre e Esclarecido, clique aqui:

Termo de Consentimento Livre e Esclarecido (Português) ---- Link

Questionário/Survey ---- Link

Desde já agradecemos sua disponibilidade e apoio.

## APPENDIX E - SURVEY INFORMED CONSENT FORM ENGLISH

Dear UFMG International Master's or Ph.D. Student,

You are invited to participate in the research "The informational characteristics and needs of International Graduate Students at the Federal University of Minas Gerais", linked to the Graduate Program in Management and Knowledge Organization at UFMG. The main objective of the research is to understand the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG, to contribute to the internationalization process of the institution's education. The research is being carried out by the student Danielle do Carmo Pimenta Rioga, registration number 2017659970 under the supervision and guidance of Professor Renata Maria Abrantes Baracho, Ph.D. and co-supervision of Professor Dagobert Soergel, Ph.D. This survey predicts mild emotional risks, since the participant may feel uncomfortable with the content of the questions. If this occurs, you can stop filling in the Questionnaire at any time. Your personal information will not need to be provided, thus maintaining the confidentiality of the data source. The data obtained will be stored in digital form and printed by the researchers for 5 (five) years and afterward, destroyed (as recommended by Resolution no 466/2012). Besides, the data will be used in future scientific publications and research activities. The research participant will be contributing to the field of knowledge in the area of Information Science and Internationalization of Education, in addition to assisting in research for the internal development of the internationalization process of Brazilian universities. The decision to proceed with the completion of the questionnaire will be considered as consent to the participation of the research. This study has the support of the International Relations Office (DRI) in the dissemination of the questionnaire link. For further clarification on the research, please contact:

Professor Renata Maria Abrantes Baracho, Ph.D. (UFMG) - renatabaracho@arq.ufmg.br Ph.D. Candidate Danielle do Carmo Pimenta Rioga (UFMG) - danyrioga@ufmg.br

COEP - UFMG Research Ethics Committee, address: Avenida Presidente Antônio Carlos, no 6627, Pampulha - Belo Horizonte, MG, CEP 31270-901, Administrative Unit II - 2nd Floor - Room: 2005. Telephone: (031) 3409- 4592, E-mail: coep@prpq.ufmg.br

To obtain a copy of the Informed Consent Form, click here:

Informed Consent Form ---- Link

We thank you for your availability and support.

## APPENDIX F – SURVEY

# Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey -International Graduate Students of UFMG

Prezado(a) Estudante internacional de Mestrado ou Doutorado da UFMG,

Você está sendo convidado(a) a participar da pesquisa "As características e necessidades informacionais dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais", vinculada ao Programa de Pós-Graduação em Gestão e Organização do Conhecimento da UFMG.

A pesquisa tem como objetivo principal, compreender as características e necessidades de informação dos Estudantes Internacionais da Pós-graduação da Universidade Federal de Minas Gerais - UFMG, a fim de contribuir para o processo de internacionalização da educação da instituição. A pesquisa está sendo realizada pela discente Danielle do Carmo Pimenta Rioga, matrícula nº 2017659970 sob a supervisão e orientação da Professora Dra. Renata Maria Abrantes Baracho e co-orientação do Professor Dr. Dagobert Soergel.

Esta pesquisa prevê leves riscos emocionais, uma vez que, o participante pode se sentir desconfortável com o conteúdo das perguntas. Caso isso ocorra, você poderá interromper o preenchimento do Questionário, a qualquer momento. A duração média de preeenchimento do Questionário é de 20 minutos. Suas informações pessoais não precisarão ser fornecidas, mantendo dessa forma, a confidencialidade da origem dos dados. Os dados obtidos serão armazenados em forma digital e impressa pelas pesquisadoras durante 5 (cinco) anos e após, totalmente destruídos (conforme preconiza a Resolução nº466/2012).

Além disso, os dados serão utilizados futuramente em publicações científicas e atividades de pesquisa. O participante da pesquisa estará contribuindo para o campo de conhecimento na área de Ciência da Informação e Internacionalização da Educação, além de auxiliar nas pesquisas para desenvolvimento interno do processo de internacionalização das universidades brasileiras. A decisão de prosseguir com o preenchimento do questionário, será considerada como consentimento à participação da pesquisa. Esse estudo conta com o apoio da Diretoria de Relações Internacionais (DRI) na disseminação do link do questionário. Para maiores esclarecimentos sobre a pesquisa, gentileza entrar em contato com:

Profa. Dra. Renata Maria Abrantes Baracho (UFMG) - renatabaracho@arq.ufmq.br

Doutoranda Danielle do Carmo Pimenta Rioga (UFMG) - danyrioga@ufmg.br

COEP - Comitê de Ética em Pesquisa da UFMG, endereço: Avenida Presidente Antônio Carlos, no 6627, Pampulha - Belo Horizonte, MG, CEP 31270-901, Unidade Administrativa II - 2º Andar - Sala: 2005. Telefone: (031) 3409-4592, E-mail: coep@prog.ufmg.br

Para obter uma cópia do Termo de Consentimento Livre e Esclarecido, clique aqui:

Termo de Consentimento Livre e Esclarecido https://drive.google.com/file/d/1COlYMBJ\_uv6ifhZwh01vanGWdXvfRZw1/view? usp=sharing

Desde já agradecemos sua disponibilidade e apoio.

Dear UFMG International Master or Ph.D. Student,

You are being invited to participate in the research "The characteristics and informational needs of International Graduate Students at the Federal University of Minas 10/4/22, 7:51 PM Questionário - Estudantes Internacionais da P6s-graduação da UPMG / Survey - International Graduate Students of UPMG

Gerais", linked to the Graduate Program in Management and Knowledge Organization at UFMG.

The main objective of the research is to understand the characteristics and information needs of International Graduate Students at the Federal University of Minas Gerais - UFMG, to contribute to the internationalization process of the institution's education. The research is being carried out by the student Danielle do Carmo Pimenta Rioga, registration number 2017659970 under the supervision and guidance of Professor Renata Maria Abrantes Baracho, Ph.D. and co-supervision of Professor Dagobert Soergel, Ph.D.

This survey predicts mild emotional risks, since the participant may feel uncomfortable with the content of the questions. If this occurs, you can stop filling in the Questionnaire at any time. You will take around 20 minutes to fill it all out. Your personal information will not need to be provided, thus maintaining the confidentiality of the data source. The data obtained will be stored in digital form and printed by the researchers for 5 (five) years and afterward, destroyed (as recommended by Resolution nº 466/2012).

Besides, the data will be used in future scientific publications and research activities. The research participant will be contributing to the field of knowledge in the area of Information Science and Internationalization of Education, in addition to assisting in research for the internal development of the internationalization process of Brazilian universities. The decision to proceed with the completion of the questionnaire will be considered as consent to the participation of the research. This study has the support of the International Relations Office (DRI) in the dissemination of the questionnaire link. For further clarification on the research, please contact:

Professor Renata Maria Abrantes Baracho, Ph.D. (UFMG) - renatabaracho@arg.ufmg.br

PhD Candidate Danielle do Carmo Pimenta Rioga (UFMG) - danyrioga@ufmg.br

COEP - UFMG Research Ethics Committee, address: Avenida Presidente Antônio Carios, no 6627, Pampulha - Belo Horizonte, MG, CEP 31270-901, Administrative Unit II - 2nd Floor - Room: 2005. Telephone: (031) 3409- 4592, E-mail: <a href="mailto:coep@prpg.ufmg.br">coep@prpg.ufmg.br</a>

To obtain a copy of the Informed Consent Form, click here:

Informed Consent Form ---

\* Required

https://drive.google.com/file/d/1sz9Zlk1l8WKDXoCJ1vxUTClWdlEvpd1P/view?usp=sharing

We thank you for your availability and support.

1.	Você concorda com os Termos de Participação da Pesquisa? / Do you agree with the Terms of this research?	*
	Mark only one oval.	
	Sim/Yes	
	◯ Não/No	
	Características Demográficas / Background	
2	Idada/Ana.*	
2.	Idade/Age: *	

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	3.	Com qual gênero você se identifica? / With which gender would you identify  yourself?
		Mark only one oval.
		Masculino/Male
		Feminino/Female
		Não-binário/Non-binary
		Other:

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4. Nacionalidade / Nationality: \* Mark only one oval. Afeganistão - Afghanistan/ Afegão - Afghan Andorra/ Andorrano - Andorran Angola/ Angolano - Angolan Antígua e Barbuda - Antigua e Barbuda / Antiguano - Antiguan/Barbudan Argélia - Algeria / Argelino - Algerian Argentina / Argentino - Argentinian Armênia - Armenia / Armênio - Armenian Austrália - Australia / Australiano - Australian Áustria - Austria / Austríaco - Austrian Azerbaijão - Azerbaijan / Azeri - Azerbaijani Bahamas - The Bahamas / Bahamense - Bahamian Bangladesh / Banglades - Bangladeshi Barbados/ Barbadian - Barbadiano Barém - Bahrain / Baremita - Bahraini Bielorrússia - Belarus/ Bielorrusso - Belarusian Bélgica - Belgium / Belga - Belgian Belize/ Belizenho - Belizean Benim - Benin / Beninense - Beninese Bolívia / Boliviano - Bolivian Bósnia; Bósnia e Herzegovina - Bosnia; Bosnia and Herzegovina / Bósnio -Bosnian Botsuana - Botswana / Bechuano - Motswana Brasil - Brazil / Brasileiro - Brazilian Brunei / Bruneano - Bruneian Bulgária/ Búlgaro - Bulgarian Burkina - BurkinaFaso / Burquinense - FasoBurkinabé Burundi / Burundês - Burundian Butão - Bhutan / Butanense - Bhutanese Cabo Verde - Cape Verde / Cabo-verdiano - Cape Verdean Camarões - Cameroon / Camaronense - Cameroonian Camboja - Cambodia / Cambojano - Cambodian Canadá / Canadense - Canadian República Centro-Africana - Central African Republic / Centroafricano - Centralafrican Chad - Chade/ Chadiano - Chadian China / Chinês - Chinese Chile/ Chileno - Chilean Ilhas Cook - Cook Islands / Cookiano - Cook Islander Colômbia/ Colombiano - Colombian Comoros - Comores/ Comoriano - Comoran Costa Rica/ Costa-riquenho - Costa Rican

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	Croácia/ Croata - Croatian
	Cuba / Cubano - Cuban
	Chipre - Cyprus / Cipriota - Cypriot
	República Tcheca - Czech Republic / Tcheco - Czech
	República Democrática do Congo - Democratic Republic of Congo / Congolense - Congolese
	Dinamarca - Denmark / Dinamarquês - Danish
	Djibuti - Djibouti / Djibutiense - Djiboutian
	Dominica/ Dominiquense - Dominican
	República Dominicana - Dominican Republic / Dominicano - Dominican
	Timor Leste - East Timor / Timorense - East Timorese
	Equador - Ecuador / Equatoriano - Ecuadorian
	Egito - Egypt / Egípcio - Egyptian
	El Salvador/ Salvadorean – salvadorenho
	Inglaterra - England / Inglês - English
	Guiné Equatorial - Equatorial Guinea/ Guinéu-equatoriano - Equatoguinean
	Eritrela/ Eritreu - Eritrean
	Estônia/ Estoniano - Estonian
	Fiji/ Fijiano - Fijian
	Finlândia - Finland / Finlandês - Finnish
	França - France / Francês - French
	Gabão - Gabon / Gabonense - Gabonese
	Gâmbia/ Gambiano - Gambian
	Geórgia/ Geórgico - Georgian
	Alemanha - Germany / Alemão - German
	Granada - Grenada / Granadino - Grenadian
	Grécia - Greece / Grego - Greek
	Guatemala/ Guatemalan
	Guiné - Guinea / Guineano - Guinean
	Guiné-Bissau - Guinea - Bissau / Bissau-guineense - Bissau - guinean
	Guiana - Guyana / Guianense - Guyanese
	Haiti / Haitiano - Haitian
	Holanda - Holland / Holandês - Dutch
	Honduras / Hondurenho - Honduran
	Hungria - Hungary / Húngaro - Hungarian
	Islândia - Iceland / Islandès - Icelander
	Índia/ Indiano - Indian
	Indonésia / Indonésio - Indonesian
	Irã / Iraniano - Iranian
	Irlanda - Ireland / Irlandês - Irish
	Israel / Israelia - Israeli
	Itália - Italy / Italiano - Italian
	Costa do Marfim - Ivory Coast / Costa-marfinense - Ivorian

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[	Jamaica/ Jamaicano - Jamaican
(	Japāo - Japan / Japonês - Japanese
(	Jordânia - Jordan / Jordão - Jordanian
(	Cazaquistão - Kazakhstan / Cazaque - Kazakh
(	Quênia - Kenya / Queniano - Kenyan
[	Quiribati - Kiribati / Quiribatiano - I-kiribati
(	Quirguistão - Kyrgyzstan / Quirguistanês - Kyrgyzstani
(	Kuwait - Kwait / kuwaitiano - Kwaiti
[	Laos / Laosiano - Laotian
[	Letônia - Latvia / Letoniano - Latvian
[	Líbano - Lebanon / Libanês - Lebanese
(	Lesoto - Lesotho / Lesotiano - Basotho
(	Libéria / Liberiano - Liberian
[	Liechtenstein / Liechtensteinense - Liechtensteiner
[	Lituania - Lithuania / Lituano - Lithuanian
(	Luxemburgo - Luxembourg / Luxemburguês - Luxembourgish
(	Líbia - Lybia / Líbio - Lybian
(	Macedônia / Macedônio - Macedonian
[	Madagascar / Madagascarense - Malagasy
[	Malásia - Malaysia / Malaio - Malaysian
(	Malaui - Malawi / Malauiano - Malawian
(	Maldivas - Maldives / Maldivo - Maldivian
(	Máli / Maliano - Malian
(	Malta / Maltês - Maltese
(	Maurício - Mauritius / Mauriciano - Mauritian
(	Mauritánia - Mauritia / Mauritano - Mauritanian
(	lihas Marshall - Marshall Island / Marshallino - Marshall Islander
(	Estados Federados da Micronésia - Micronesia/Federated States of Micronesia / Micronésio - Micronesian
(	México / Mexicano - Mexican
(	Marrocos - Morocco / Marroquino - Moroccan
(	Moldavia - Moldova / Moldávio - Moldovan
(	Mônaco / Monegasco - Monacan
(	Mongólia / Mongol - Mongolian
(	Montenegro / Montenegrino - Montenegrin
(	Moçambique - Mozambique / Moçambicano - Mozambican
(	Myanmar / Birmanês - Burmese
(	Namíbia / Namibiano - Namibian
(	Nauru / Nauruano - Nauruan
(	Nepal / Nepalës - Nepali
(	Nova Zelândia - New Zealand / Neozelandês - NewZealander
(	Nicarágua / Nicaraguense - Nicaraguan
1	Niger / Nigerino - Nigerien

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	Nigéria / Nigeriano - Nigerian
	Niue / Niuano - Niuean
	Coréia do Norte - North Korea / Norte-coreano - North korean
	Noruega - Norway / Norueguês - Norwegian
	Omä - Oman / Omanense - Omani
	Palestina - Palestine / Palestino - Palestinian
	Paquistão - Pakistan / Paquistanês - Pakistanese
	Palau / Palauense - Palauan
	Panamá / Panamenho - Panamanian
	Papua Nova Guiné - Papua New Guinea / Papuásio - Papua New Guinean
	Paragual - Paraguay / Paraguaio - Paraguayan
	Peru / Peruano - Peruvian
	Filipinas - Philippines / Filipino - Philippine
	Polônia - Poland / Polonês - Polish
	Portugal / Português - Portuguese
	Catar - Qatar / Catarense - Qatari
	Romênia - Romania / Romeno - Romanian
	Rússia / Russo - Russian
	Ruanda - Rwanda / Ruandês - Rwandan
	Samoa / Samoano - Samoan
	Santa Lúcia - Saint Lucia / Santa-lucense - Saint Lucian
	São Cristóvão e Nevis - Saint Kitts and Nevis / São-cristovense - Kittian
	São Marino - San Marino / São-marinense - San Marinan
	São Tomé e Príncipe - Sao Tomé and Principe / São-tomense - Sao Tomean
	São Vicente e Granadinas - Saint Vincent and the Grenadines / São-vicentino - Vicentinian
	Escócia - Scotland / Escocês - Scottish
	Senegal / Senegalense - Senegalese
	Sérvia - Serbia / Sérvio - Serbian
	Seicheles - Seychelles / Seichelense - Seychellois
	Serra Leoa - Sierra Leone / Serra-leonês - Sierra Leonean
	Singapura - Singapore / Singapurense - Singaporean
	Eslováquia - Slovakia / Eslovaco - Slovak
	Ilhas Salomão - Solomon Islands / Salomônico - Solomon Islander
	Somália / Somali - Somali
	África do Sul - South Africa / Sul-africano - South African
	Coréia do Sul - South Korea / Coreano - Korean
	Sudão do Sul - South Sudan / Sul-sudanense - South Sudanese
	Espanha - Spain / Espanhol - Spanish
	Sri Lanka / Srilankês - Sri Lankan
	Sudão - Sudan / Sudão - Sudanese
	Suriname / Surinamês - Surinamese
	Suazilândia - Swaziland / Suazi - Swazi

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	Suécia - Sweden / Sueco - Swedish
	Suíça - Switzerland / Suíço - Swiss
	Síria - Syria / Sírio - Syrian
	Tadiquistão - Tajikistan / Tajique - Tajiki
	Tanzānia / Tanzaniano - Tanzanian
	Tailândia - Thailand / Tailandês - Thai
	Togo / Togolês - Togolese
	Tonga / Tonganês - Tongan
	Trindade e Tobago - Trinidad and Tobago / Trinitário - Trinidadian
	Tunísia / Tunisiano - Tunisian
	Turcomenistão - Turkmenistan / Turcomeno - Turkmen
	Turquia - Turkey / Turco - Turkish
	Tuvalu / Tuvaluano - Tuvaluan
	Ucrânia - Ukraine / Ucraniano - Ukrainian
	Uganda / Ugandês - Ugandan
	Uruguai - Uruguay / Uruguaio - Uruguayan
	Emirados Árabes Unidos - United Arab Emirates / Árabe - Emirati
	Reino Unido - United Kingdom / Britânico - British
	Estados Unidos da América - United States of America / Americano - American
	Usbequistão - Uzbekistan / Usbequistão - Uzbek
	Vanuatu / Vanuatuano - Ni-vanuatu
	Venezuela / Venezuelano - Venezuelan
	Vietnä - Vietnam / Vietnamita - Vietnamese
	País de Gales - Wales / Galês - Welsh
	iêmen - Yemen / Iemenita - Yemeni
	Zâmbia / Zambiano - Zambian
	Zimbábue - Zimbabwe / Zimbabueano - Zimbabwean
-	Vestiters assis de uma cidadania? (Pouse bosa mara than ana citizanabia?
5.	Você tem mais de uma cidadania? / Do you have more than one citizenship? *
	Mark only one oval.
	Slm/Yes Skip to question 6
	Não/No Skip to question 7

Outra nacionalidade / Other nationality

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6.	Qual é/são a(s) outra(s) cidadania(s) que você possui? / Which is/are the other *
citizenship(s) that you have?	
	Check all that apply.
	Afeganistão - Afghanistan/ Afegão - Afghan
	Andorra/ Andorrano - Andorran
	Angola/ Angolano - Angolan
	Antígua e Barbuda - Antigua e Barbuda / Antiguano - Antiguan/Barbudan
	Argélia - Algeria / Argelino - Algerian
	Argentina / Argentino - Argentinian
	Armênia - Armenia / Armênio - Armenian
	Austrália - Australia / Australiano - Australian
	Áustria - Austria / Austríaco - Austrían
	Azerbaijāo - Azerbaijan / Azeri - Azerbaijani
	Bahamas - The Bahamas / Bahamense - Bahamian
	Bangladesh / Bangladés - Bangladeshi
	Barbados/ Barbadian - Barbadiano
	Barém - Bahrain / Baremita - Bahraini
	Bielorrússia - Belarus/ Bielorrusso - Belarusian
	Bélgica - Belgium / Belga - Belgian
	Belize/ Belizenho - Belizean
	Benim - Benin / Beninense - Beninese
	Bolívia / Boliviano - Bolivian
	Bósnia; Bósnia e Herzegovina - Bosnia; Bosnia and Herzegovina / Bósnio - Bosnian
	Botsuana - Botswana / Bechuano - Motswana
	Brasil - Brazil / Brasileiro - Brazilian
	Brunei / Bruneano - Bruneian
	Bulgária/ Búlgaro - Bulgarian
	Burkina - BurkinaFaso / Burquinense - FasoBurkinabé
	Burundi / Burundês - Burundian
	Butão - Bhutan / Butanense - Bhutanese
	Cabo Verde - Cape Verde / Cabo-verdiano - Cape Verdean  Camarões - Cameroon / Camaronense - Cameroonian
	Camboja - Cambodia / Cambojano - Cambodian  Canadá / Canadense - Canadian
	República Centro-Africana - Central African Republic / Centroafricano - Central-
	african
	Chad - Chade/ Chadiano - Chadian
	China / Chinês - Chinese
	Chile/ Chileno - Chilean
	Ilhas Cook - Cook Islands / Cookiano - Cook Islander
	Colômbia/ Colombiano - Colombian
	Comoros - Comores/ Comoriano - Comoran
	Costa Rica/ Costa-riquenho - Costa Rican
	Croácia/ Croata - Croatian
	Cuba / Cubano - Cuban
	Chipre - Cyprus / Clpriota - Cypriot
	República Tcheca - Czech Republic / Tcheco - Czech
	República Democrática do Congo - Democratic Republic of Congo / Congolense -
	Congolese
	Dinamarca - Denmark / Dinamarquês - Danish
	Djibuti - Djibouti / Djibutiense - Djiboutian
	Dominica/ Dominiquense - Dominican

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	República Dominicana - Dominican Republic / Dominicano - Dominican
	Timor Leste - East Timor / Timorense - East Timorese
	Equador - Ecuador / Equatoriano - Ecuadorian
	Egito - Egypt / Egípcio - Egyptian
	El Salvador/ Salvadorean – salvadorenho
	Inglaterra - England / Inglês - English
Ī	Guiné Equatorial - Equatorial Guinea/ Guinéu-equatoriano - Equatoguinean
Ē	Eritrela/ Eritreu - Eritrean
Ī	Estônia/ Estoniano - Estonian
Ē	Fiji/ Fijiano - Fijian
	Finlândia - Finland / Finlandês - Finnish
Ē	França - France / Francês - French
	Gabão - Gabon / Gabonense - Gabonese
Ī	Gâmbia/ Gambiano - Gambian
Ē	Geórgia/ Geórgico - Georgian
Ī	Alemanha - Germany / Alemão - German
Ē	Granada - Grenada / Granadino - Grenadian
	Grécia - Greece / Grego - Greek
Ī	Guatemala/ Guatemalteco - Guatemalan
Ē	Guiné - Guinea / Guineano - Guinean
Ī	Guiné-Bissau - Guinea - Bissau / Bissau-guineense - Bissau-guinean
	Guiana - Guyana / Guianense - Guyanese
	Halti / Haltiano - Haltian
Ē	Holanda - Holland / Holandês - Dutch
_	Honduras / Hondurenho - Honduran
Ī	Hungria - Hungary / Húngaro - Hungarian
	Islândia - Iceland / Islandês - Icelander
Ī	Índia/ Indiano - Indian
	Indonésia / Indonésio - Indonesian
	Iră / Iraniano - Iranian
Ī	Irlanda - Ireland / Irlandês - Irish
	Israel / Israelita - Israeli
Ī	Itália - Italy / Italiano - Italian
	Costa do Marfim - Ivory Coast / Costa-marfinense - Ivorian
	Jamaica/ Jamaicano - Jamaican
	Japão - Japan / Japonês - Japanese
	Jordânia - Jordan / Jordão - Jordanian
	Cazaquistão - Kazakhstan / Cazaque - Kazakh
	Quênia - Kenya / Queniano - Kenyan
	Quiribati - Kiribati / Quiribatiano - I-kiribati
	Quirguistão - Kyrgyzstan / Quirguistanês - Kyrgyzstani
	Kuwait - Kwait / kuwaitiano - Kwaiti
	Laos / Laosiano - Laotian
	Letônia - Latvia / Letoniano - Latvian
	Líbano - Lebanon / Libanês - Lebanese
	Lesoto - Lesotho / Lesotiano - Basotho
	Libéria / Liberiano - Liberian
Ī	Liechtenstein / Liechtensteinense - Liechtensteiner
F	Lituánia - Lithuania / Lituano - Lithuanian
	Luxemburgo - Luxembourg / Luxemburguês - Luxembourgish
Ī	Líbia - Lybia / Líbio - Lybian
	Macedônia / Macedônio - Macedonian
_	Madansscar / Madansscarence - Malanssy

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	Malásia - Malaysia / Malaio - Malaysian
	Malaui - Malawi / Malauiano - Malawian
	Maldivas - Maldives / Maldivo - Maldivian
	Máli / Maliano - Malian
	Malta / Maltês - Maltese
	Maurício - Mauritius / Mauriciano - Mauritian
	Mauritânia - Mauritia / Mauritano - Mauritanian
	Ilhas Marshall - Marshall Island / Marshallino - Marshall Islander
	Estados Federados da Micronésia - Micronesia/Federated States of Micronesia /
Mic	cronésio - Micronesian
	México / Mexicano - Mexican
	Marrocos - Morocco / Marroquino - Moroccan
	Moldavia - Moldova / Moldávio - Moldovan
	Mônaco / Monegasco - Monacan
	Mongólia / Mongol - Mongolian
	Montenegro / Montenegrino - Montenegrin
	Moçambique - Mozambique / Moçambicano - Mozambican
	Myanmar / Birmanês - Burmese
	Namíbia / Namibiano - Namibian
	Nauru / Nauruano - Nauruan
	Nepal / Nepalês - Nepali
	Nova Zelândia - New Zealand / Neozelandês - NewZealander
	Nicarágua / Nicaraguense - Nicaraguan
L	Níger / Nigerino - Nigerien
	Nigéria / Nigeriano - Nigerian
	Niue / Niuano - Niuean
	Coréia do Norte - North Korea / Norte-coreano - North korean
	Noruega - Norway / Norueguês - Norwegian
L	Omä - Oman / Omanense - Omani
	Palestina - Palestino - Palestinian
L	Paquistão - Pakistan / Paquistanês - Pakistanese
L	Palau / Palauense - Palauan
	Panamá / Panamenho - Panamanian
	Papua Nova Guiné - Papua New Guinea / Papuásio - Papua New Guinean
	Paraguai - Paraguay / Paraguaio - Paraguayan
	Peru / Peruano - Peruvian
	Filipinas - Philippines / Filipino - Philippine
	Polônia - Poland / Polonês - Polish
	Portugal / Português - Portuguese
	Catar - Qatar / Catarense - Qatari
	Romênia - Romania / Romeno - Romanian Rússia / Russo - Russian
H	Ruanda - Rwanda / Ruandês - Rwandan
	Samoa / Samoano - Samoan
	Santa Lúcia - Saint Lucia / Santa-lucense - Saint Lucian
	São Cristóvão e Nevis - Saint Kitts and Nevis / São-cristovense - Kittian
	São Marino - San Marino / São-marinense - San Marinan
	São Tomé e Príncipe - Sao Tomé and Principe / São-tomense - Sao Tomean
	São Vicente e Granadinas - Saint Vincent and the Grenadines / São-vicentino -
Vic	entinian
	Escócia - Scotland / Escocês - Scottish
F	Senegal / Senegalense - Senegalese
F	Sérvia - Serbia / Sérvio - Serbian
	Seicheles - Seychelles / Seichelense - Seychellois

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	Serra Leoa - Sierra Leone / Serra-leonês - Sierra Leonean
	Singapura - Singapore / Singapurense - Singaporean
	Eslováquia - Slovakia / Eslovaco - Slovak
	Ilhas Salomão - Solomon Islands / Salomônico - Solomon Islander
	Somália / Somali - Somali
	África do Sul - South Africa / Sul-africano - South African
	Coréia do Sul - South Korea / Coreano - Korean
	Sudão do Sul - South Sudan / Sul-sudanense - South Sudanese
	Espanha - Spain / Espanhol - Spanish
	Sri Lanka / Srilankês - Sri Lankan
	Sudão - Sudan / Sudão - Sudanese
	Suriname / Surinames - Surinamese
	Suazilândia - Swaziland / Suazi - Swazi
	Suécia - Sweden / Sueco - Swedish
	Suíça - Switzerland / Suíço - Swiss
	Síria - Syria / Sírio - Syrian
	Tadiquistão - Tajikistan / Tajique - Tajiki
	Tanzânia / Tanzaniano - Tanzanian
L	Tailândia - Thailand / Tailandês - Thai
L	Togo / Togolês - Togolese
L	Tonga / Tonganês - Tongan
L	Trindade e Tobago - Trinidad and Tobago / Trinitário - Trinidadian
L	Tunísia / Tunisiano - Tunisian
L	Turcomenistão - Turkmenistan / Turcomeno - Turkmen
L	Turquia - Turkey / Turco - Turkish
L	Tuvalu / Tuvaluano - Tuvaluan
L	Ucrânia - Ukraine / Ucraniano - Ukrainian
L	Uganda / Ugandês - Ugandan
	Uruguai - Uruguay / Uruguaio - Uruguayan
_	Emirados Árabes Unidos - United Arab Emirates / Árabe - Emirati Reino Unido - United Kingdom / Britânico - British
_	Estados Unidos da América - United States of America / Americano - American
	Usbequistão - Uzbekistan / Usbequistão - Uzbek
	Vanuatu / Vanuatuano - Ni-vanuatu
	Venezuela / Venezuelano - Venezuelan
	Vietnä - Vietnam / Vietnamita - Vietnamese
_	País de Gales - Wales / Galês - Welsh
Ī	lêmen - Yemen / Iemenita - Yemeni
	Zâmbia / Zambiano - Zambian
	Zimbábue - Zimbabwe / Zimbabueano - Zimbabwean
٧	/ivência no exterior / Living abroad
	cê já viveu em outro país, além do Brasil? / Have you ever lived in another *
co	untry, besides Brazil?
Ma	ark only one oval.
	Sim/Yes
	Não/No

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 $Question\'{a}rio-Estudantes~Internacionais~da~P\'os-graduac\'ao~da~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~Students~of~UPMG~/~Survey-International~Graduate~/$ 

Idiomas / Languages

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8.	Língua materna / Mother language: *
	Mark only one oval.
	Albanês - Albanian
	Afar
	Persa afegão ou Dari - Afghan Persian or Dari
	Afrikaans
	Amárico - Amharic
	Arabe - Arabic
	Aramaico - Aramaic
	Aranês - Aranese
	Aménio - Armenian
	Azerbaljani - Azerbaljani
	Almará - Aymara
	Bangla
	Basco - Basque
	Bahasa - Behasa
	Bahasa Malaysia
	Bielo-russo - Belarusian
	Bengali
	Berbere ou tamazight - Berber or Tamazight
	Bislama
	Bokmal norueguês - Bokmal Norwegian
	Bósnio - Bosnian
	Búlgaro - Bulgarian
	Birmanês - Burmese
	Catalão - Catalan
	Chamorro
	Chinês - Chinese
	Crioulo - Crioulo/ Krioulo/Creole
	Croata - Croatian
	Tcheco - Czech
	Dagomba
	Dinamarquês - Danish
	Dhivehi
	Holandês - Dutch
	O Dzongkha
	Inglês - English
	Estoniano - Estonian
	Ewe
	De Fiji - Fijian
	C) Filipino
	Finlandês - Finnish

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	Francês - French
	Galego - Galician
	Georgiano - Georgian
	Alemão - German
	Grego - Greek
	Guarani
	Hebraico - Hebrew
	Hindi
	Hiri Matu
	Húngaro - Hungarian
	Islandês - Icelandic
	l-Kiribati
	Irlandês - Irish
	ishiXhosa
	isiNdebele
	isiZulu
	Italiano - Italian
	Japonês - Japanese
	Kabye
	Casaque - Kazakh
	Khmer
	Kinyarwanda
	Kirundi
	Kiswahili
	Coreano - Korean
	Curdo - Kurdish
	Quirguiz - Kyrgyz
	Lao
	Latim - Latin
0	Letão - Latvian
	Lituano - Lithuanian
9	Luxemburguês - Luxembourgish
_	Macedônio - Macedonian
9	Malgaxe - Malagasy
9	Malaio - Malay
9	Maltês - Maltese
9	Mandarim - Mandarin
	Maori
$\sim$	Marshalês - Marshallese
	Mina
	Moldavo - Moldovan
$\subseteq$	Mongol - Mongolian
	Montenegrino - Montenegrin

10/4/22, 7:51 PM	M Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International Graduate Students of UFMG
	Nauruano - Nauruan
	Ndebele
	Nepalês - Nepali
	Norueguês - Norwegian
	Nynorsk Norueguês - Nynorsk Norwegian
	☐ Oromo
	Palauano - Palauan
	Pashto
	Papiamento
	Persa - Persian
	Persa Farsi - Persian Farsi
	Polonês - Polish
	Polinésio - Polynesian
	Português - Portuguese
	Punjabi
	Quechua
	Romeno - Romanian
	Russo - Russian
	Sepedi
	Sérvio - Serbian
	Sesotho
	Setswana
	Shikomoro
	Shona
	Sinhala
	siSwati
	Eslovaco - Slovak
	Esloveno - Slovene
	Somali
	Espanhol - Spanish
	Sueco - Swedish
	Tagalog Tajik
	Taiwanês - Taiwanese
	Tâmil - Tamil
	Turco tailandês - Thai Turkish
	Tigrinya
	Tok Pisin
	Tonganês - Tongan
	Tshivenda
	Turco - Turkish
	Turcomano - Turkmen
	Tibetano tuvaluano - Tuvaluan Tibetan
	Ulghur

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	Ucraniano -	Ukranian
	Uzbeque - U	zbek
	◯ Vietnamita -	Vietnamese
	Xitsonga	
	Yue	
	Zhuang	
9.	Você fala outro id	dioma? / Do you speak another language? *
	Mark only one ov	al.
	Sim/Yes	Skip to question 10
	Não/No	Skip to question 11
	Outras línguas	/ Other languages

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4/22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UPMG / Survey - International Graduate Students of UPMG
10.	Qual/Quais outro(s) idioma(s) você fala? / Which one(s)? *
	Check all that apply.
	Albanês - Albanian
	Afar
	Persa afegão ou Dari - Afghan Persian or Dari
	Afrikaans
	Amárico - Amharic
	Árabe - Arabic
	Aramaico - Aramaic
	Aranês - Aranese
	Amênio - Armenian
	Azerbaijani - Azerbaijani
	Almará - Aymara
	Bangla Basco - Basque
	Bahasa - Behasa
	Bahasa Malaysia
	Bielo-russo - Belarusian
	Bengali
	Berbere ou tamazight - Berber or Tamazight
	Bislama
	Bokmal norueguês - Bokmal Norwegian
	Bósnio - Bosnian
	Búlgaro - Bulgarian
	Birmanês - Burmese
	Catalão - Catalan
	Chamorro
	Crioulo - Crioulo/ Krioulo/Creole
	Croata - Croatian
	Tcheco - Czech
	Dagomba
	Dinamarquês - Danish
	Dhivehi
	Holandês - Dutch
	Dzongkha
	Inglês - English
	Estoniano - Estonian
	Ewe
	De Fiji - Fijian Fijipino
	Finlandês - Finnish
	Francès - French
	Galego - Galician
	Georgiano - Georgian
	Alemão - German
	Grego - Greek
	Guarani
	Hebraico - Hebrew
	Hindi
	Hiri Matu
	Húngaro - Hungarian

10/4/22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International Graduate Students of UFMG
[	Islandês - Icelandic
[	I-Kiribati
[	Irlandês - Irish
[	ishiXhosa
[	isiNdebele
[	isiZulu
[	Italiano - Italian
[	Japonês - Japanese
[	Kabye
[	Casaque - Kazakh
[	Khmer
[	Kinyarwanda
[	Kirundi
[	Kiswahili
[	Coreano - Korean
[	Curdo - Kurdish
[	Quirguiz - Kyrgyz
[	Lao
[	Latim - Latin
[	Letão - Latvian
[	Lituano - Lithuanian
[	Luxemburguês - Luxembourgish
[	Macedônio - Macedonian
[	Malgaxe - Malagasy
[	Malaio - Malay
[	Maltês - Maltese
	Mandarim - Mandarin
[	Maori
[	Marshalês - Marshallese
[	Mina
	Moldavo - Moldovan
	Mongol - Mongolian
[	Montenegrino - Montenegrin
	Nauruano - Nauruan
[	Ndebele
	Nepalês - Nepali
	Norueguês - Norwegian
[	Nynorsk Norueguês - Nynorsk Norwegian
[	Oromo
	Palauano - Palauan
	Pashto
[	Paplamento
	Persa - Persian
[	Persa Farsi - Persian Farsi
	Polonês - Polish
[	Polinésio - Polynesian
	Português - Portuguese
[	Punjabi
[	Quechua
	Romeno - Romanian
[	Russo - Russian
	Sepedi
[	Sérvio - Serbian

10/4/22, 7:51 PM	Quest	ionário - Estudantes Inter	macionais da Pós-gr	aduação da UFMG / Survey - Interna	tional Graduate Students of UFN	иG
	Sesotho			,,		
	Setswana					
	Shikomoro					
	Shona					
	Sinhala					
	siSwati					
	Eslovaco - Slov					
	Esloveno - Slov	ene				
	Somali					
	Espanhol - Spa					
	Sueco - Swedis	h				
	Tagalog Tajik					
	Taiwanês - Taiv	vanese				
	Tâmil - Tamil Turco tailandês	. Thai Turkish				
		s - Thai Turkish				
	Tigrinya Tok Pisin					
	Tonganês - Tor	vaan.				
	Tshivenda	igan				
	Turco - Turkish					
	Turcomano - Ti					
	Tibetano tuvalu	ano - Tuvaluan Tibet	tan			
	Uighur					
	Ucraniano - Ukr	ranian				
	Uzbeque - Uzbe	ek				
	Vietnamita - Vi	etnamese				
	Xitsonga					
	Yue					
	Zhuang					
	Língua Portugues	a / Portuguese lan	guage			
11.	Qual o seu nível n each criteria?	o Português, para o	cada critério? /	Which is your Portuguese le	evel for *	
	Mark only one oval	per row.				
		Inexistente/None	Básico/Basic	Intermediário/Intermediate	Avançado/	
	Fluência					
	verbal/Speaking				_	
	Escuta/Listening			0		
	Leitura/Reading					
	C	/ 1	F 7	F - 3	T .	

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12.	O teste Celpe-Bras foi/é um requisito? / Has the Celpe-Bras test been required * for you?
	Mark only one oval.
	◯ Sim/Yes
	○ Não/No
	Formação / Education
13.	Você é aluno de Pós-graduação da UFMG atualmente ou ex-aluno? / Are you a * Graduate student at UFMG at the moment or an Alumni student?
	Mark only one oval.
	Eu sou aluno da Pós-graduação da UFMG no momento/l am a Graduate student at UFMG at the moment
	Eu sou ex-aluno da Pós-graduação da UFMG/l'm an Alumni Graduate student of UFMG
	Qual nível você está estudando NA UFMG ou já cursou? / Which course are you * taking AT UFMG or have already taken?
	Mark only one oval.
	Mestrado/Masters
	Doutorado/Ph.D.

10/4/22, 7:51 PM Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International Graduate Students of UFMG 15. Em qual Programa de Pós-graduação você está estudando ou já finalizou? / Which Graduate Program are you in or have already finished? Mark only one oval. Ambiente Construído e Patrimônio Sustentável Análise e Modelagem de Sistemas Ambientais Arquitetura e Urbanismo Administração Artes Antropologia Análises Clínicas e Toxicológicas Mestrado Profissional - Artes Alimentos e Saúde Biologia Vegetal Bioquímica e Imunologia Biologia Celular Bioinformática Construção Civil Ciência da Computação Ciência Animal Ciências Biológicas: Farmacologia Bioquímica e Molecular Ciência de Alimentos Ciências da Reabilitação Clências e Técnicas Nucleares Ciências Farmacêuticas Ciência Política Ciências Aplicadas à Saúde do Adulto Comunicação Social Ciências do Esporte Ciências da Saúde - Infectologia e Medicina Tropical Ciência Farmacêuticas Ciência da Informação Ciências Biológicas - Fisiologia e Farmacologia Ciências da Saúde - Saúde da Criança e do Adolescente Controladoria e Contabilidade Ciências Aplicadas à Cirurgia e à Oftalmologia Mestrado Profissional - Ciência Animal Ciência Fonoaudiológicas Ciências Florestais Direito Demografia Ecologia, Conservação e Manejo da Vida Silvestre

Economia

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	Educação - Conhecimento e Inclusão Social
	Enfermagem
	Engenharia de Estruturas
	Engenharia de Produção
	Engenharia Elétrica
	Engenharia Metalúrgica, Materiais e de Minas
	Engenharia Mecânica
	Engenharia Química
	Estatística
	Estudos do Lazer
	Estudos Linguísticos
	Mestrado Profissional - Educação e Docência
	Mestrado Profissional - Educação Física
	Mestrado Profissional – Engenharia Metalúrgica, Materiais e de Minas
	Mestrado Profissional – Ensino de Biología
	Estudos da Ocupação
	Filosofia
	Física
	Genética
	Geografia
	Geologia
	Geotecnia e Transportes
	Gestão e Organização do Conhecimento
	Mestrado Profissional – Gestão de Serviços de Saúde
	História
	Mestrado Profissional – Inovação Tecnológica e Propriedade Intelectual
	novação Tecnológica e Biofarmacêutica
	Letras: Estudos Literários
	Mestrado Profissional – Letras
	Música
	Matemática
	Microbiologia  Madisus and a definite formatical and a second allowed to the second and a second
	Medicamentos e Assistência Farmacêutica
	Medicina Molecular  Medicina Molecular
	Mestrado Profissional – Microbiologia Aplicada
	Neurociências  Nutrios o Socialo
	Odontologia
	Mestrado Profissional - Odontologia em Saúde Pública
	Parasitologia  Odontologia em Saude Publica
	Patologia
	Psicologia
	Produção Vegetal

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	Mestrado Profissional – Promoção de Saúde e Prevenção da Violência
	Produção Animal
	Psicologia: Cognição e Comportamento
	Química
	Saneamento, Meio Ambiente e Recursos Hídricos
	Saúde da Mulher
	Saúde Pública
	Sociología
	Sociedade Ambiente e Território
	Zootecnia
	Zoologia
16.	Em que ano e semestre você iniciou seus estudos na UFMG? / Which year and *
	semester you started/have started your studies at UFMG?
	Mark only one oval.
	Antes de 2011/Before 2011
	2011 - 1° semestre/ 2011 - 1° semester
	2011 - 2° semestre/ 2011 - 2° semester
	2012 - 1° semestre/ 2012 - 1° semester
	2012 - 2° semestre/ 2012 - 2° semester
	2013 - 1° semestre/ 2013 - 1° semester
	2013 - 2° semestre/ 2013 - 2° semester
	2014 - 1° semestre/ 2014 - 1° semester
	2014 - 2° semestre/ 2014 - 2° semester
	2015 - 1° semestre/ 2015 - 1° semester
	2015 - 2° semestre/ 2015 - 2° semester
	2016 - 1° semestre/ 2016 - 1° semester
	2016 - 2° semestre/ 2016 - 2° semester
	2017 - 1° semestre/ 2017 - 1° semester
	2017 - 2° semestre/ 2017 - 2° semester
	2018 - 1° semestre/ 2018 - 1° semester
	2018 - 2° semestre/ 2018 - 2° semester
	2019 - 1° semestre/ 2019 - 1° semester
	2019 - 2° semestre/ 2019 - 2° semester
	2020 - 1° semestre/ 2020 - 1° semester
	() 2020 - 2° semestre/ 2020 - 2° semester

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Em que ano e semestre você finalizou ou irá finalizar seus estudos na UFMG? / \*
 Which year and semester you finished or will finish your studies at UFMG?

Mark only one oval. Antes de 2011/Before 2011 2011 - 1° semestre/ 2011 - 1° semester 2011 - 2° semestre/ 2011 - 2° semester 2012 - 1° semestre/ 2012 - 1° semester 2012 - 2º semestre/ 2012 - 2º semester 2013 - 1° semestre/ 2013 - 1° semester 2013 - 2º semestre/ 2013 - 2º semester 2014 - 1° semestre/ 2014 - 1° semester 2014 - 2º semestre/ 2014 - 2º semester 2015 - 1° semestre/ 2015 - 1° semester 2015 - 2° semestre/ 2015 - 2° semester 2016 - 1º semestre/ 2016 - 1º semester 2016 - 2º semestre/ 2016 - 2º semester 2017 - 1º semestre/ 2017 - 1º semester 2017 - 2° semestre/ 2017 - 2° semester 2018 - 1° semestre/ 2018 - 1° semester 2018 - 2º semestre/ 2018 - 2º semester 2019 - 1° semestre/ 2019 - 1° semester 2019 - 2º semestre/ 2019 - 2º semester 2020 - 1° semestre/ 2020 - 1° semester 2020 - 2º semestre/ 2020 - 2º semester 2021 - 1° semestre/ 2021 - 1° semester 2021 - 2º semestre/ 2021 - 2º semester 2022 - 1º semestre/ 2022 - 1º semester 2022 - 2º semestre/ 2022 - 2º semester 2023 - 1º semestre/ 2023 - 1º semester 2023 - 2º semestre/ 2023 - 2º semester 2024 - 1° semestre/ 2024 - 1° semester 2024 - 2º semestre/ 2024 - 2º semester 2025 - 1° semestre/ 2025 - 1° semester 2025 - 2º semestre/ 2025 - 2º semester

Depois de 2025/After 2025

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18.	Qual a modalidade de intercâmbio que você está fazendo ou fez?/ Which
	exchange program modality you are doing at the moment or have already done?
	Mark only one oval.
	Mestrado ou Doutorado completo/Full course of Masters or Ph.D.
	Parte do Mestrado ou Doutorado(Sanduíche)/Part of the Masters or Ph.D.
	Other:
	Jornada do Estudante / Student Journey
19.	Porque você decidiu estudar no Brasil? / Why did you decide to study in Brazil? *
	Check all that apply.
	Ascenção profissional/Professional growth
	Acesso a financiamento de pesquisa e/ou bolsa/Access to research grant and/or
	scholarship Pela imagem do país no exterior/Because of Brazil image abroad
	Viver uma experiência internacional/Live an international experience
	Amigos, família ou parceiro/Friends, family or partner
	Contato prévio com o país/Previous contact with the country
	Contatos ou oportunidades profissionais/Contacts or professional opportunities
	Interesse de pesquisa/Research interest
	Other:
20.	Como você ouviu falar da UFMG? / How did you hear about UFMG? *
	Check all that apply.
	Amigos, família ou parceiro/Friends, família or partner
	Contatos ou oportunidades profissionais/Contacts or professional opportunities
	Parceria com instituição que sou conectado/Partnership with the institution that I am connected
	Redes socials (Facebook, Linked in, Instagram, etc)/Social Networks (Facebook,
	Linked in, Instagram, etc)
	Sites de busca/Search websites
	Site da UFMG/UFMG Website  Eventos acadêmicos ou profissionais/Professional or academic Events
	Other:

22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International Graduate Students of UFMG
21.	Porque você decidiu estudar na UFMG? / Why did you decide to study at
ı	UFMG?
(	Check all that apply.
	Contato prévio com o Programa de Pós-graduação/Previous contact with the
(	Graduate Program
	Contato prévio com o Orientador(a)/Previous contact with the Advisor
	Possibilidade de receber bolsa/Possibility to have a scholarship
	Amigos, família ou parceiro/Friends, family or partner
	Reputação acadêmica positiva/Positive academic reputation
	Other:
22.	Antes de se tornar aluno na UFMG, com quem você entrou em contato, com o *
	objetivo de obter maiores informações, sobre o processo de seleção da Pós-
9	graduação? / Before becoming a graduate Student at UFMG, who had you
	contacted aiming to have more information about the Graduate Program
	Application process?
(	Check all that apply.
	Meu possível orientador(a) naquele momento/My possible Advisor at that moment
	A Pós-graduação da qual faço parte atualmente/The Graduate Program that I am in,
-	nowadays
1	Departamento responsável pela Pós-graduação que eu tinha interesse/Department that holds the Graduate Program that I had interest at that moment
	Diretoria de Relações Internacionais - DR/International Relations Office
	Pró-Reitoria de Pós-graduação - PRPG/Graduate Program Pro-rectory
	Reitoria/Rectory
	Amigos, família ou parceiro/Friends, family or partner
	Other:
23. (	Qual(is) canal(is) de comunicação você usou para obter essas informações? / *
	Which way(s) did you use to communicate?
(	Check all that apply.
	Telefone/Phone
	E-mail/Email
	Site da UFMG/UFMG Website
	Site da Pós-graduação/Graduate Program Website
	Site do Departamento/Department Website
	Redes sociais (Facebook, Linked in, Instagram, etc)/Social Networks (Facebook, Linked in, Instagram, etc)
	Contato presencial/in person
	Other:

Passo 1- Processo de Seleção da Pós-graduação - ANTES DA SUA CHEGADA / Step 1 - Graduate Program Application - BEFORE YOUR ARRIVAL

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Como você avalia a importância desses canais de comunicação - ANTES DA SUA
 CHEGADA: / How do you evaluate the importance of each communication channel BEFORE YOU HAVE ARRIVED:

Mark only one oval per row.

	0 Nada importante/Not at all important	1	2	3	4	5	6
Telefone/Phone				0			
E-mail/Email				$\bigcirc$			$\bigcirc$
Facebook		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$		$\bigcirc$
Instagram		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
Linked in	0	$\circ$	$\circ$		$\circ$	$\circ$	$\bigcirc$
Redes socials acadêmicas (ex: Research Gate, etc)/Academic Social Networks (e.g.: Research Gate, etc)	0	0	0	0	0	0	0
Twitter				$\bigcirc$			
Youtube				$\bigcirc$			
Tumbir		$\bigcirc$		$\bigcirc$		$\bigcirc$	
Medium	0			$\bigcirc$			
Flickr				$\bigcirc$			

25. Como você avalia a qualidade das informações disponibilizadas nos CANAIS \* OFICIAIS da UFMG, sobre o PROCESSO DE SELEÇÃO DA PÓS-GRADUAÇÃO? / How do you evaluate the quality of the information available on the OFFICIAL CHANNELS of UFMG, about the GRADUATE APPLICATION PROCESS?

Mark only one oval.

	0	1	2	3	4	5	6	7	8	9	10	
Péssimo/Awful	$\bigcirc$				$\bigcirc$	$\bigcirc$				$\bigcirc$		Excelente/Excelent

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26.	Porque você de	u essa r	nota? /	Why I	have yo	u grad	ed this	way?					
27.	Como você avai OFICIAIS da UFI ESTUDANTE? / the OFFICIAL CI	MG, sob How do	re o P	ROCES valuate	SSO DE e the q	OBTEN uality o	NÇÃO [ f the in	00 VIS	TO DE tion ava	ilable (			
	Mark only one ove	al.											
		0	1	2	3	4	5	6	7	8	9	10	
	Péssimo/Awful		0	0	0		0	0	0	$\bigcirc$	0		Excelente/Excellent
28.	Porque você de	u essa r	nota? /	Why I	have yo	u grad	ed this	way?					

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29. Como você avalia a qualidade das informações disponibilizadas pelos canais oficias da \* UFMG - ANTES DA SUA CHEGADA, sobre: / How do you evaluate the quality of the information available on the official channels of UFMG - BEFORE YOU HAVE ARRIVED about:

Mark only one oval per row.

	0 Péssimo/Awful	1	2	3	4	5	
Aluguel- estadia/Housing- places for living	0	0	0	0	0	0	ı
Custo de vida/Living expenses	0	0	0	0	0	0	ı
Transporte (ônibus, metrô e aplicativos)/Transpor tation (Buses, subway and apps)	0	0	0	0	0	0	
Grupos de acolhimento/Support groups	0	0	0	0	0	0	
Contato com pessoas do mesmo país/Contact with co- nationals	0	0	0	0	0	0	ı
Contato com grupos de estudantes internacionais/Conta ct with groups of international students	0	0	0	0	0	0	ı
Serviços de Saúde (Sistema Público de Saúde e Planos de Saúde Particulares) /Health Insurance (Public Health System and Private Health Insurance)	0	0	0	0	0	0	
Matrícula na UFMG e outros assuntos acadêmicos/Enrollme nt process at UFMG and related academic matters	0	0	0	0	0	0	
Visto de estudante e assuntos afins (visto, registro nacional de estrangeiro, CPF, Federal Police, etc )/Student visa and related matters (visa, national foreign	0	0	0	0	0	0	

Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International Graduate Students of UFMG 10/4/22, 7:51 PM registration, CPF, Federal Police, etc ...) 30. Na sua opinião, o que poderia melhorar em relação às informações disponibilizadas pelos canais oficiais da UFMG - SOBRE A PREPARAÇÃO DA SUA CHEGADA? / In your opinion, what could be improved regarding the available information on the official channels of UFMG - ABOUT THE PREPARATION TO YOUR ARRIVAL? Passo 2 - CHEGADA À UFMG / Step 2 - UFMG ARRIVAL 31. Houve algum evento para recepcioná-lo(a) na UFMG? / Was there any event to \* host you at UFMG? Mark only one oval. Skip to question 32 Sim/Yes Não/No Skip to question 35 Yes. There was an event to host me. / Sim. Houve um evento de recepção. 32. Você participou desse evento? / Did you attend to this event? \* Mark only one oval. Yes/Sim Skip to question 33 No/Não Skip to question 36 Sim. Fui ao evento de recepção. / Yes. I went to the host event. 33. Como você avalia as INFORMAÇÕES DISPONIBILIZADAS NESSE EVENTO? / \* How do you evaluate the INFORMATION AVAILABLE AT THIS EVENT? Mark only one oval. 10 Excelente/Excellent

10/4/22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International	Graduate Students of UFMG
34.	Porque você deu essa nota? / Why have you graded this way?	
	Não houve nenhum evento de recepção. / There wasn't any host event.	
35.	Após a sua chegada na UFMG, quem você procurou para recepcioná-lo(a)? / * After your arrival at UFMG, who did you look for to host you?	
	Ajuda com trâmites burocráticos, transporte, hospedagem e outros/Help with bureaucratic procedures, transportation, housing and others.	
	Check all that apply.	
	Amigos, família ou parceiro(a)/Friends, family or partner	
	Diretoria de Relações Internacionais - DRI/International Relations Office	
	Pró-reitoria de Pós-graduação - PRPG/Pro-Rectory Office	
	Reitoria/Rectory	
	Secretaria da Pós-graduação/Graduate Program Reception  Secretaria do Departamento/Department Reception	
	Departamento de Registro e Controle Acadêmico - DRCA/Academic Registration	
	and Control Department	
	Other:	

Necessidades informacionais / Information needs

10/4/22, 7:51 PM

Questionário - Estudantes Internacionais da Pós-graduação da UPMG / Survey - International Graduate Students of UPMG

36. Como você avalia a importância desses canais de comunicação - durante seu PERÍODO \* DE ADAPTAÇÃO em BH-MG-BR? / How do you evaluate the importance of each communication channel - during your ADJUSTMENT PERIOD in BH-MG-BR?

Mark only one oval per row.

	0 Nada importante/Not at all important	1	2	3	4	5	6
Telefone/Phone				0		$\bigcirc$	
E-mail/Email			$\bigcirc$	$\bigcirc$			
Facebook		$\bigcirc$	$\bigcirc$		$\bigcirc$		$\bigcirc$
Instagram		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
Linked in	0	$\circ$	0		$\circ$	0	$\bigcirc$
Redes sociais acadêmicas (ex: Research Gate, etc)/Academic Social Networks (e.g.: Research Gate, etc)	0	0	0	0	0	0	0
Twitter	0			0			
Youtube				0			
Tumblr	0			0			
Medium	0			0			
Flickr				0			

37. Quão importante é/foi cada tipo de informação listada, durante seu PERÍODO DE ADAPTAÇÃO em BH-MG-BR? / How important was each kind of information listed during your ADJUSTMENT PERIOD in BH-MG-BR?

Mark only one oval per row.

	0 Nada importante/Not at all important	1	2	3	4	5
Aluguel- estadia/Housing- places for living	0	0	0	0	0	0
Supermercados/Supe rmarkets	0	0	0	0	0	0
Bares, Restaurantes e Cafés/Bars, Restaurants and Coffee Shops	0	0	0	0	0	0
Serviços de Saúde (Postos de Saúde e Hospitais/Health Services (Free Health Care branches and Hospitals)	0	0	0	0	0	0
Universidade e locais relacionados (DRI, Biblioteca, Reitoria, etc/University and academic matters (DRI, Library, Reitoria, etc)	0	0	0	0	0	0
Bancos, Caixas eletrônicos e Agências de Câmbio/Banks, ATMs and Exchange Agencies	0	0	0	0	0	0
Transporte (ônibus, metrô e aplicativos)/Transpor tation (Buses, subway and apps)	0	0	0	0	0	0
Esporte, Lazer e espaços de recreação/Sports- Leisure-Recreational places	0	0	0	0	0	0
Cinemas e Casas shows /Cinema- Theater	0	0	0	0	0	0
Eventos, Feiras e Festivais/Events, Fairs and Festivais	0	0	0	0	0	0

10/4/22, 7:51 PM	Questionário -	Estudantes Internac	ionais da Pós-	graduação di	UFMG / St	irvey - Intern	ational Gradua	te Students of UFMG
	Rotas-nomes de ruas/Routes-names of streets		<u> </u>		$\bigcirc$			_
	Procedimentos burocráticos e documentação (visto, registro nacional do estrangeiro, CPF, Polícia Federal, etc)/Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc)	0	0	0	0	0	0	

Questionário - Estudantes Internacionais da Pós-graduação da UPMG / Survey - International Graduate Students of UPMG

Amigos-

38. Qual(is) fonte(s) de informação você usou/está usando DURANTE SEU PREÍODO DE ADAPTAÇÃO em BH-MG-BR, para encontrar cada informação listada abaixo? / Which type(s) of information source(s) did you use/have you been using DURING YOUR ADJUSTMENT PERIOD in BH-MG-BR, to find each kind of information listed below?

Check all that apply.

	Amigos- outros estudantes do mesmo paísFriends- other students from the same country	Amigos-outros estudantes de outros países/Friends- other students from other countries	Amigos-outros estudantes brasileiros/Friends- other Brazilian students	outros estrangeiros que residam ou já residiram em BH/Friends- other foreigners that live or have already lived in BH	
Housing-places for living/Aluguel-estadia					-
Supermercados/Supe rmarkets					
Bares, Restaurantes e Cafés/Bars, Restaurants and Coffee Shops					
Serviços de Saúde (Postos de Saúde e Hospitais)/Health Services (Free Health Care branches and Hospitals)					_
Universidade e locais relacionados (DRI, Biblioteca, Reitoria, etc)/University and academic matters (DRI, Library, Reitoria, etc)					_
Bancos, Caixas eletrônicos e Agências de Câmbio/Banks, ATMs and Exchange Agencies					-
Transporte (ônibus,					-

10/4/22, 7:51 PM	Questionúrio - I aplicativos)/Transpor tation (Buses, subway and apps)	Estudantes Intern	nacionais da Pós-gradua	ção da UPMG / Survey -	International Graduate	Students of UPMG
	Esporte, Lazer e espaços de recreação/Sports- Leisure-Recreational places					
	Cinemas e Casas shows/Cinema- Theater					
	Eventos, Feiras e Festivais/Events, Fairs and Festivals					
	Rotas-nomes de ruas/Routes-names of streets					
	Procedimentos burocráticos e documentação (visto, registros nacional do estudante, CPF, Polícia Federal, etc)/Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc)					
	Bolsa de pesquisa / Scho	olarship rese	earch			
	Você recebe bolsa atualn Pós-graduação? / Are you receive it?					
		question 40 question 42				
	Agência de Fomento / Fi	nancing Age	ency			

10/4/22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UPMG / Survey - International Graduate Students of UPMG
40.	Qual programa educacional viabilizou/viabiliza sua bolsa? / Which educational * program mediates/mediated your scholarship?
	Mark only one oval.
	PAEC
	□ PEC-PG
	Other:
41.	Sua bolsa é/era fornecida por qual agência de fomento? / Which agency supports/supported your scholarship?
	Mark only one oval.
	Capes
	CNPQ
	Other:
	Passo 3 - Período de Adaptação - DEPOIS DA SUA CHEGADA / Step 3 - Adjustment Period - AFTER YOUR ARRIVAL
42.	Quando você precisa/precisava de alguma informação sobre a UFMG ou sua *
	Pós-graduação, a quem você recorre/recorria primeiro? / When you need/needed an information about UFMG or your Graduate Program, who do/did you look for at first?
	Mark only one oval.
	Meu orientador(a)/My advisor
	Colega brasileiro do mestrado ou doutorado/A Brazilian friend from the Masters or the Ph.D.
	Facebook (grupos, página ou messenger)/Facebook (groups, page or messenger)
	Grupo do Whatsapp or Telegram/Whatsapp or Telegram group
	Secretaria do Programa - telefone ou e-mail/Reception of my Graduate Program - telephone or email
	Web site of my Gradaute Program/Web site da minha Pós-graduação
	Colega estrangeiro do mestrado ou doutorado/Foreigner friend from the Master's or Ph.D.
	Other:

Questões de Saúde / Health Matters

0/4/22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - International Graduate Students of UPMG
43.	Depois da sua chegada você teve algum problema de saúde? / Since your * arrival have you had any health problem?
	Mark only one oval.
	Sim/Yes Skip to question 44
	Não/No Skip to question 46
	Suporte de Saúde / Health Support
44.	O que ocorreu? / What happened? *
45.	A quem você recorreu? / Who did you look for or Where did you go at first? *
	Mark only one oval.
	Posto de Saúde/Free Health Care Center
	Clínica Particular/Private Clinic
	Hospital Público/Public Hospital
	Amigos, família ou parceiro(a)/Friends, family or partner
	Departamentos ou pessoas ligadas à UFMG/Departments or people connected to UFMG
	Other:
	Período de Adaptação in BH - MG - BR / Adjustment Period in BH - MG - BR
46.	Você está passando pelo PERÍODO DE ADAPTAÇÃO in BH - MG - BR? / Are you * going through the ADJUSTMENT PERIOD in BH - MG - BR?
	Mark only one oval.
	Sim. Estou passando por ele./Yes. I am going through it. Skip to question 48
	Não. Eu já passel por ele./No. I have already gone through it. Skip to question 47
	Não. Eu já passei pelo período de adaptação. / No. I have already gone
	through the adjustment period.

22, 7:51 PM					emational Graduate Students of U							
47.	damine temperature			-	/ *							
	How long do you consider to be the ADJUSTMENT PERIOD in BH-MG?											
	Mark only one oval.											
	Até 30 dias/Up to 30 days											
	Entre 1 e 2 meses	/Between 1 and	2 months									
	Entre 3 e 6 meses	/Between 3 and	6 months									
	Mais de 7 meses/More than 7 months											
	O maior desafio / The	Biggest challer	nge									
48.	Qual é/foi SEU MAIOR DESAFIO durante o período de adaptação? / What											
	is/was your BIGGEST CHALLENGE during the adjustment period?											
	Socialização / Socialization											
49.	Com que frequência você mantém/mantinha contato com: / How frequently do you   keep in touch with: OR How frequently did you use to keep in touch with:											
			,,	,								
	Mark only one oval per row.											
		1-	2-	3- Às	4- Multas vezes/Many							
		Nunca/Never	Raramente/Rarely	vezes/Sometimes	times							
	Pessoas do seu país											
	de origem/People from your home											
	country											
	Pessoas de outros											
	países/People from	$\circ$		$\circ$	$\circ$							
	another country											
	Brasileiros(as)/Brazili	_	_	~	~							

10/4/22, 7:51 PM	Questi	onário - Estudantes Interna	acionais da Pós-g	raduação da UFM	G / Survey - Inter	mational Gradua	te Students of UFMG
50.	. Quais os meios de comunicação você usa/usava para manter contato com: / Which communication channels do/did you use to keep in touch with:						k
	Check all that apply.						
		Telefone/Phon	e E- mail/Ema	Facebook- il Messenger	Instagram	Linked in	۸
	Pessoas do seu pa de origem/People from your home country	ís					-
	Pessoas de outros países/People fron another country						
	Brasileiros(as)/Bra ans						_
	Recomendação / R	Recommendation					
51.		lade de você recom f you to recommend				nat *	
	Mark only one oval.						
		0 1 2	3 4	5 6	7 8	9 10	
	Nenhuma/None (		00	00	00	0 0	Muito alta/Very high
52.	-	azer algum coment nent about your eva		a avaliação? /	/ Would you I	like	

10/4/22, 7:51 PM	Questionário - Estudantes Internacionais da Pós-graduação da UFMG / Survey - Internatio	nal Graduate Students of UFMG
53.	Você gostaria de fazer algum comentário, avaliação ou sugestão? / Would you like to make any other comment, evaluation or suggestion?	

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# APPENDIX G – TABLE 16 – CATEGORIES AND SUBCATEGORIES

**Table 16 – Categories and Subcategories** 

Categories and Subcategories	Files	References
A- PEC-PG	5	46
A.1 - Escolha pelo PEC-PG / PEC-PG Choice	5	9
A.2 - Primeiro contato Edital PEC-PG / First contact with Public Tender PEC-PG	5	14
A.3 - Compreensão do Edital PEC-PG / PEC-PG Public Tender comprehension	5	16
A.4 - Contato-Dúvidas Edital PEC-PG / PEC-PG Public Tender Contact-questions	2	4
A.5 - Bolsa como pré-requisito para estudar PEC-PG / Scholarship as a prerequisite for studying PEC-PG	2	3
B- Seleção PEC-PG / PEC-PG Application process	5	10
B.6 - Preenchimento do Currículo Lattes PEC-PG / Completion of the Curriculum Lattes PEC-PG	1	2
B.7 - Seleção via Capes ou CNPQ PEC-PG / PEC-PG Application process via Capes or CNPQ	2	3
B.8- Descrição processo de seleção PEC-PG / PEC-PG Description of Application Process	3	5
C- Aprovação PEC-PG / PEC-PG Approval	4	11
C.9 - Contato com Setor da UFMG após aprovação PEC-PG / Contact with UFMG Sector after PEC-PG approval	1	1
C.10 - Processo do visto de estudante para o Brasil / Student visa process for Brazil	1	4
C.11 - Descrição da experiência de aprovação PEC-PG / Description of PEC-PG approval experience	3	6
D- PEC-PG e Outros Programas - Pós-graduação / PEC-PG and Other Programs - Graduate Programs	9	75
D.12 - Escolha da Pós-Grad / Graduate Program choice	8	22
D.13 - Primeiro contato Edital Pós-Grad / First Contact with Graduate Program Public Tender	4	10
D.14 - Compreensão Edital Pós-Grad / Graduate Program Public Tender comprehension	1	1
D.15 - Contato-Dúvidas Ed Pós-Grad / Graduate Program Public Tender Contact- questions	1	1
D.16 - Preenchimento Currículo Lattes - Pós-Grad / Completion of Lattes Curriculum	5	7
D.17 - Compreensão do Português / Portuguese Comprehension	4	9
D.18 - Contato com Departamento ou possível Orientador / Contact with Department or possible Advisor	7	20

Categories and Subcategories	Files	References
D.19 - Bolsa como pré-requisito para estudar / Scholarship as a prerequisite for studying	3	5
E- PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs – Graduate Program Approval	9	47
E.20 - Processo do visto de estudante para o Brasil / Student visa process for Brazil	7	23
E.21 - Tipo de Bolsa Pós-Grad / Kind of Graduate Program Scholarship	3	4
E.22 - Contato com Setor da UFMG após aprovação Pós-Grad / Contact with the UFMG Sector after Graduate approval	6	6
E.23 - Descrição da experiência da aprovação Pós-Grad / Description of the Graduate Approval Experience / Graduate Approval Experience Description	6	14
F- Matrícula UFMG / UFMG Enrollment	9	113
F.24 - Recepção na UFMG / Reception at UFMG	5	8
F.25 - Procedimentos para se tornar aluno(a) da UFMG / Procedures for becoming a UFMG student	7	17
F.26 - Contato com a Diretoria de Relações Internacionais – DRI / Contact with the International Relations Office - DRI	9	49
F.27 - Celpe-Bras- teste de proficiência em Português / Celpe-Bras- Portuguese proficiency test	6	16
F.28 - Burocracia e documentação na chegada / Bureaucracy and documentation upon arrival	7	18
F.29 - Renovação de visto periodicamente / Visa Periodical Renewal	4	5
G- Belo Horizonte – interação / Belo Horizonte – interaction	9	248
G.30 - Busca por moradia em BH / Belo Horizonte housing search	9	33
G.31 - Atendimento Médico em BH / Medical Care in Belo Horizonte	8	13
G.32 - Interação desde a chegada em BH / Interaction since arrival in Belo Horizonte	9	39
G.33 - Lugares favoritos em BH / Favorite places in BH	8	14
G.34 - Atividades favoritas em BH / Favorite Activities in Belo Horizonte	7	9
G.35 - Similaridades entre Brasil ou BH e cultura de origem / Similarities between Brazil or BH and culture of origin	7	16
G.36 - Comida típica de Minas Gerais / Minas Gerais typical food	8	17
G.37 - Interação com brasileiros em geral / Interaction with Brazilians in general	6	13
G.38 - Adaptação à cultura brasileira / Adaptation to Brazilian culture	9	20
G.39 - Adaptação ao português brasileiro / Adaptation to Brazilian Portuguese	8	28
G.40 - Contato com outros estrangeiros ou compatriotas / Contact with other foreigners or compatriots	8	34

Categories and Subcategories	Files	References
G.41 - Locomoção dentro e fora do Campus / Getting around on and off-campus	6	12
H- UFMG – interação / UFMG -interaction	9	80
H.42 - Interação com estudantes brasileiros da UFMG / Interaction with Brazilian students at UFMG	6	15
H.43 - Interação com os Professores brasileiros / Interaction with Brazilian Professors	6	9
H.44 - Contato com colegas de sala / Contact with classmates	5	12
H.45 - Contato com funcionários da UFMG / Contact with UFMG employees	5	6
H.46 - Contato com os funcionários do departamento / Contact with department employees	4	5
H.47 - Contato com outros estudantes do PEC / Contact with other PEC students	5	8
H.48 - Explorando o Campus da UFMG / Exploring UFMG Campus	6	10
H.49 - Interação com colegas do Lab ou grupo de pesquisa / Interaction with Lab colleagues or research group	3	5
H.50 - Assistindo aulas / Attending classes	4	10
I- Bolsas Capes-CNPQ / Capes-CNPQ Scholarships	7	38
I.51 - Evento acadêmico / Academic event	1	1
I.52 - Relatório do evento acadêmico / Academic event report	0	0
I.53 - Relatório semestral da Capes or CNPQ / Capes or CNPQ semi-annual report	6	9
I.54 - Informação adicional para a Capes ou CNPQ / Additional information for Capes or CNPQ	1	2
I.55 - Comunicação com a Capes ou CNPQ / Communication with Capes or CNPQ	4	10
I.56 - Processo de concessão de bolsa - após aprovação da Pós-Grad / Scholarship granting process - after Graduate Program approval	6	13
I.57 - Perda de bolsa / Scholarship loss	3	3
J- Fontes de informação / Information sources	9	184
J.58 – Telefone / Telephone	3	7
J.59 - E-mail / Email	7	19
J.60 - Redes Sociais populares / Popular social networks	5	17
J.61 - Redes sociais acadêmicas / Academic social networks	1	1
J.62 - Messenger ou Whatsapp / Messenger or Whatsapp	5	12
J.63 – Pessoalmente / In-person	7	13
J.64 - Site da UFMG / UFMG website	1	2

Categories and Subcategories	Files	References
J.65 - Site do departamento ou Pós-Graduação / Department website or Graduate Program	4	7
J.66 - Pessoa como referência de informação / Person as information reference	9	85
J.67 - Secretaria do Programa de Pós-Graduação / Graduate Program Help Desk	8	20
J.68 - Plataforma de localização geográfica / Geographic location platform	1	1
K- Opinião / Opinion	9	104
k.69 - Comentário adicional / Additional comment	8	14
k.70 - Maior desafio / The biggest challenge	8	22
k.71 - Experiências pessoais / Personal experiences	7	64
K.72 - Sugestão de solução / Solution suggestion	3	4

# APPENDIX H – TABLE 17 – GENDER

Table 17 – Gender

Gender	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Feminino/ Female	16	31,4	31,4	31,4
Masculino/ Male	35	68,6	68,6	100,0
Total	51	100,0	100,0	

## APPENDIX I – TABLE 18 – NATIONALITY

Table 18 – Nationality

Nationality	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Argentina / Argentino - Argentinian	2	3,9	3,9	3,9
Benim - Benin / Beninense - Beninese	1	2,0	2,0	5,9
Cabo Verde - Cape Verde / Cabo- verdiano - Cape Verdean	1	2,0	2,0	7,8
Colômbia/ Colombiano - Colombian	18	35,3	35,3	43,1
Costa Rica/ Costa-riquenho - Costa Rican	1	2,0	2,0	45,1
Cuba / Cubano - Cuban	2	3,9	3,9	49,0
Equador - Ecuador / Equatoriano - Ecuadorian	2	3,9	3,9	52,9
Espanha - Spain / Espanhol - Spanish	1	2,0	2,0	54,9
Estados Unidos da América - United States of America / Americano - American	1	2,0	2,0	56,9
Índia/ Indiano - Indian	1	2,0	2,0	58,8
Inglaterra - England / Inglês - English	1	2,0	2,0	60,8
Irã / Iraniano - Iranian	1	2,0	2,0	62,7
Itália - Italy / Italiano - Italian	2	3,9	3,9	66,7
Moçambique - Mozambique / Moçambicano - Mozambican	4	7,8	7,8	74,5
Paquistão - Pakistan / Paquistanês - Pakistanese	1	2,0	2,0	76,5
Peru / Peruano - Peruvian	6	11,8	11,8	88,2
Romênia - Romania / Romeno - Romanian	1	2,0	2,0	90,2
Uruguai - Uruguay / Uruguaio - Uruguayan	2	3,9	3,9	94,1
Venezuela / Venezuelano - Venezuelan	3	5,9	5,9	100,0
Total	51	100,0	100,0	

# APPENDIX J – TABLE 19 – NATION INCOME

**Table 19 – Nation Income** 

Nation Income	Frequência/ Frequency	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem acumulativa/ Cumulative percentage
Low - Lower Middle	8	15,7	15,7	15,7
Upper Middle	35	68,6	68,6	84,3
High	8	15,7	15,7	100,0
Total	51	100,0	100,0	

## APPENDIX K - TABLE 20 - OTHER CITIZENSHIP

Table 20 – Other Citizenship

Other Citizenship	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Não/No	44	86,3	86,3	86,3
Sim/Yes	7	13,7	13,7	100,0
Total	51	100,0	100,0	

# APPENDIX L – TABLE 21 – OTHER COUNTRIES THE INTERNATIONAL STUDENTS HAVE LIVED BEFORE

Table 21 – Other Countries the International Students Have Lived Before

If has lived in other countries before	Frequência/ Frequency	Porcentagem/ Percentage Valida/ Valid percent		Porcentagem acumulativa/ Cumulative percentage
Não/No	23	45,1	45,1	45,1
Sim/Yes	28	54,9	54,9	100,0
Total	51	100,0	100,0	

#### APPENDIX M – TABLE 22 – NATIVE LANGUAGE

**Table 22 – Native Language** 

Native language	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Crioulo - Crioulo/ Krioulo/Creole	1	2,0	2,0	2,0
Espanhol - Spanish	35	68,6	68,6	70,6
Francês - French	1	2,0	2,0	72,5
Hindi	1	2,0	2,0	74,5
Inglês - English	2	3,9	3,9	78,4
Italiano - Italian	2	3,9	3,9	82,4
Pashto	1	2,0	2,0	84,3
Persa - Persian	1	2,0	2,0	86,3
Português - Portuguese	3	5,9	5,9	92,2
Romeno - Romanian	1	2,0	2,0	94,1
Russo - Russian	1	2,0	2,0	96,1
Shona	1	2,0	2,0	98,0
Xitsonga	1	2,0	2,0	100,0
Total	51	100,0	100,0	

#### **APPENDIX N – TABLE 23 – OTHER LANGUAGES**

Table 23 – Other Languages

Other Languages	Frequência/ Frequency			Porcentagem acumulativa/ Cumulative percentage
Não/No	2	3,9	3,9	3,9
Sim/Yes	49	96,1	96,1	100,0
Total	51	100,0	100,0	

#### APPENDIX O – TABLE 24 – PORTUGUESE LEVEL – SPEAKING

**Table 24 – Portuguese Level - Speaking** 

Portuguese level - Speaking	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Avançado/ Advanced	18	35,3	35,3	35,3
Básico/ Basic	5	9,8	9,8	45,1
Fluente/ Fluent	20	39,2	39,2	84,3
Intermediário/ Intermediate	8	15,7	15,7	100,0
Total	51	100,0	100,0	

### APPENDIX P – TABLE 25 – PORTUGUESE LEVEL – LISTENING

Table 25 – Portuguese Level – Listening

Portuguese level - Listening	Frequência/ Frequency	Porcentagem/ Percentage	- Valida/	
Avançado/ Advanced	21	41,2	41,2	41,2
Básico/ Basic	3	5,9	5,9	47,1
Fluente/ Fluent	21	41,2	41,2	88,2
Intermediário/ Intermediate	6	11,8	11,8	100,0
Total	51	100,0	100,0	

### APPENDIX Q - TABLE 26 - PORTUGUESE LEVEL - READING

 $Table\ 26-Portuguese\ Level-Reading$ 

Portuguese level - Reading	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Avançado/ Advanced	21	41,2	41,2	41,2
Básico/ Basic	2	3,9	3,9	45,1
Fluente/ Fluent	21	41,2	41,2	86,3
Intermediário/ Intermediate	7	13,7	13,7	100,0
Total	51	100,0	100,0	

### APPENDIX R - TABLE 27 – PORTUGUESE LEVEL – WRITING

**Table 27 – Portuguese Level - Writing** 

Portuguese level - Writing	Frequency Percentagem/		Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Avançado/ Advanced	21	41,2	41,2	41,2
Básico/ Basic	6	11,8	11,8	52,9
Fluente/ Fluent	13	25,5	25,5	78,4
Intermediário/ Intermediate	11	21,6	21,6	100,0
Total	51	100,0	100,0	

### APPENDIX S – TABLE 28 – CELPE-BRAS AS A REQUIREMENT

Table 28 – Celpe-Bras as a Requirement

Celpe-Bras	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Não/No	29	56,9	56,9	56,9
Sim/Yes	22	43,1	43,1	100,0
Total	51	100,0	100,0	

#### APPENDIX T – TABLE 29 – CURRENT STUDENT OR ALUMNI

Table 29 – Current Student or Alumni

Current Student or Alumni	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Eu sou aluno da Pós-graduação da UFMG no momento/ I am a Graduate student at UFMG at the moment	31	60,8	60,8	60,8
Eu sou ex-aluno da Pós- graduação da UFMG/ I'm an Alumni Graduate student of UFMG	20	39,2	39,2	100,0
Total	51	100,0	100,0	

#### APPENDIX U – TABLE 30 – UFMG COURSE

**Table 30 – UFMG Course** 

UFMG course	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Doutorado/ Ph.D.	40	78,4	78,4	78,4
Mestrado/ Master's	11	21,6	21,6	100,0
Total	51	100,0	100,0	

### APPENDIX V - TABLE 31 – UFMG GRADUATE PROGRAM

 $Table \ \ 31-UFMG \ Graduate \ Program$ 

UFMG Graduate Program	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Análise e Modelagem de Sistemas Ambientais/ Analysis and Modeling of Environmental Systems	2	3,9	3,9	3,9
Bioinformática/ Bioinformatics	4	7,8	7,8	11,8
Ciência Animal/ Animal Science	2	3,9	3,9	15,7
Ciência da Computação/ Computer Science	1	2,0	2,0	17,6
Ciência da Informação/ Information Science	4	7,8	7,8	25,5
Ciência Política/ Political Science	2	3,9	3,9	29,4
Ciências Biológicas – Fisiologia e Farmacologia/ Biological Sciences - Physiology and Pharmacology	2	3,9	3,9	33,3
Ciências e Técnicas Nucleares/ Nuclear Sciences and Techniques	1	2,0	2,0	35,3
Comunicação Social/ Social Communication	2	3,9	3,9	39,2
Demografia/ Demography	3	5,9	5,9	45,1
Ecologia, Conservação e Manejo da Vida Silvestre/ Ecology, Conservation, and Wildlife Management	1	2,0	2,0	47,1
Economia/ Economy	1	2,0	2,0	49,0
Educação – Conhecimento e Inclusão Social/ Education - Knowledge and Social Inclusion	1	2,0	2,0	51,0
Enfermagem/ Nursing	2	3,9	3,9	54,9
Engenharia de Estruturas/ Structural Engineering	1	2,0	2,0	56,9
Estatística/ Statistic	1	2,0	2,0	58,8

UFMG Graduate Program	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Estudos do Lazer/ Leisure Studies	1	2,0	2,0	60,8
Genética/ Genetics	1	2,0	2,0	62,7
Gestão e Organização do Conhecimento/ Knowledge Management and Organization	2	3,9	3,9	66,7
História/ History	1	2,0	2,0	68,6
Inovação Tecnológica e Biofarmacêutica/ Technological and Biopharmaceutical Innovation	2	3,9	3,9	72,5
Letras: Estudos Literários/ Lyrics: Literary Studies	2	3,9	3,9	76,5
Música/ Music	1	2,0	2,0	78,4
Neurociências/ Neurosciences	1	2,0	2,0	80,4
Odontologia/ Dentistry	1	2,0	2,0	82,4
Patologia/ Pathology	1	2,0	2,0	84,3
Química/ Chemistry	3	5,9	5,9	90,2
Saneamento, Meio Ambiente e Recursos Hídricos/ Sanitation, Environment, and Water Resources	3	5,9	5,9	96,1
Saúde Pública/ Public health	1	2,0	2,0	98,0
Zootecnia/ Zootechnics	1	2,0	2,0	100,0
Total	51	100,0	100,0	

### **APPENDIX W – TABLE 32 – BEGINNING OF STUDIES**

Table 32 – Beginning of Studies

Year/ Semester	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
2011 - 1° semestre/ 2011 - 1° semester	1	2,0	2,0	2,0
2012 - 1° semestre/ 2012 - 1° semester	5	9,8	9,8	11,8
2014 - 1º semestre/ 2014 - 1º semester	2	3,9	3,9	15,7
2014 - 2º semestre/ 2014 - 2º semester	3	5,9	5,9	21,6
2015 - 1° semestre/ 2015 - 1° semester	4	7,8	7,8	29,4
2015 - 2º semestre/ 2015 - 2º semester	1	2,0	2,0	31,4
2016 - 1° semestre/ 2016 - 1° semester	3	5,9	5,9	37,3
2016 - 2º semestre/ 2016 - 2º semester	1	2,0	2,0	39,2
2017 - 1° semestre/ 2017 - 1° semester	5	9,8	9,8	49,0
2018 - 1° semestre/ 2018 - 1° semester	11	21,6	21,6	70,6
2018 - 2º semestre/ 2018 - 2º semester	2	3,9	3,9	74,5
2019 - 1º semestre/ 2019 - 1º semester	4	7,8	7,8	82,4
2019 - 2º semestre/ 2019 - 2º semester	1	2,0	2,0	84,3
2020 - 1º semestre/ 2020 - 1º semester	4	7,8	7,8	92,2
2020 - 2º semestre/ 2020 - 2º semester	2	3,9	3,9	96,1
Antes de 2011/Before 2011	2	3,9	3,9	100,0
Total	51	100,0	100,0	

### APPENDIX X – TABLE 33 – END OF STUDIES

**Table 33 – End of Studies** 

Year/ Semester	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
2011 - 1º semestre/ 2011 - 1º semester	1	2,0	2,0	2,0
2013 - 1º semestre/ 2013 - 1º semester	2	3,9	3,9	5,9
2013 - 2º semestre/ 2013 - 2º semester	1	2,0	2,0	7,8
2015 - 1º semestre/ 2015 - 1º semester	1	2,0	2,0	9,8
2015 - 2° semestre/ 2015 - 2° semester	1	2,0	2,0	11,8
2016 - 1º semestre/ 2016 - 1º semester	3	5,9	5,9	17,6
2017 - 2° semestre/ 2017 - 2° semester	1	2,0	2,0	19,6
2018 - 1º semestre/ 2018 - 1º semester	3	5,9	5,9	25,5
2018 - 2º semestre/ 2018 - 2º semester	1	2,0	2,0	27,5
2019 - 1° semestre/ 2019 - 1° semester	2	3,9	3,9	31,4
2019 - 2º semestre/ 2019 - 2º semester	1	2,0	2,0	33,3
2020 - 1º semestre/ 2020 - 1º semester	2	3,9	3,9	37,3
2020 - 2° semestre/ 2020 - 2° semester	2	3,9	3,9	41,2
2021 - 1º semestre/ 2021 - 1º semester	8	15,7	15,7	56,9
2021 - 2º semestre/ 2021 - 2º semester	2	3,9	3,9	60,8
2022 - 1º semestre/ 2022 - 1º semester	7	13,7	13,7	74,5
2022 - 2º semestre/ 2022 - 2º semester	4	7,8	7,8	82,4
2023 - 1º semestre/ 2023 - 1º semester	2	3,9	3,9	86,3
2023 - 2º semestre/ 2023 - 2º semester	2	3,9	3,9	90,2
2024 - 1º semestre/ 2024 - 1º semester	3	5,9	5,9	96,1
2025 - 1º semestre/ 2025 - 1º semester	1	2,0	2,0	98,0
Antes de 2011/Before 2011	1	2,0	2,0	100,0
Total	51	100,0	100,0	

#### APPENDIX Y – TABLE 34 – UFMG EXCHANGE PROGRAM MODALITY

Table 34 – UFMG Exchange Program Modality

UFMG Exchange Program Modality	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Other	2	3,9	3,9	3,9
Co-tutela UFMG/ L' Orientale de Nápoles	1	2,0	2,0	5,9
Erasmus+	1	2,0	2,0	7,8
Mestrado ou Doutorado completo/ Full course of Master's or Ph.D.	42	82,4	82,4	90,2
No 2017 inicie o mestrado que finalizou no 2019, mas entrei no doutorado por concurso que finalizara em fevereiro do 2023/ln 2017 I started my Master's and finished in 2019, but I got in the Ph.D. Program right after, which I will finish in February of 2023.	1	2,0	2,0	92,2
Parte do Mestrado ou Doutorado(Sanduíche)/ Part of the Master's or Ph.D.	3	5,9	5,9	98,0
TWAS-CNPq PhD Fellowship	1	2,0	2,0	100,0
Total	51	100,0	100,0	

### APPENDIX Z - TABLE 35 - BRAZIL AS A FINAL CHOICE

Table 35 – Brazil as a Final Choice

Reasons to choose Brasil	Contagem/ Score	N % da coluna/ N % of column
Ascenção profissional/ Professional growth	16	31,4%
Acesso a financiamento de pesquisa e ou bolsa/ Access to research grant and or scholarship	33	64,7%
Pela imagem do país no exterior/ Because of Brazil image abroad	16	31,4%
Viver uma experiência internacional/ Live an international experience	20	39,2%
Amigos família ou parceiro/ Friends family or partner	12	23,5%
Contato prévio com o país/ Previous contact with the country	13	25,5%
Contatos ou oportunidades profissionais/ Contacts or professional opportunity	8	15,7%
Interesse de pesquisa/ Research interest	23	45,1%
Outro / Other	2	3,9%

# APPENDIX AA – TABLE 36 – HOW HAD THE INTERNATIONAL STUDENT EVER HEARD ABOUT UFMG?

Table 36 – How Had the International Student Ever Heard about UFMG?

How had the international student ever heard about UFMG?	Contagem/ Score	N % da coluna/ N % of column
Amigos, família ou parceiro/ Friends, family or partner	22	43,1%
Contatos ou oportunidades profissionais/ Contacts or professional opportunities	20	39,2%
Parceria com instituição que sou conectado/ Partnership with the institution that I am connected	12	23,5%
Redes sociais (Facebook, Linked In, Instagram, etc.)/ Social Networks (Facebook, Linked in, Instagram, etc.)	2	3,9%
Sites de busca/ Search websites	8	15,7%
Site da UFMG/ UFMG Website	7	13,7%
Eventos acadêmicos ou profissionais/ Professional or academic Events	9	17,6%
Outro / Other	3	5,9%

### APPENDIX BB – TABLE 37 – UFMG AS A FINAL CHOICE

Table 37 – UFMG as a Final Choice

Reasons to choose UFMG	Contagem/ Score	N % da coluna/ N % of column
Contato prévio com o Programa de Pós-graduação/ Previous contact with the Graduate Program	10	19,6%
Contato prévio com o Orientador(a)/ Previous contact with the Advisor	20	39,2%
Possibilidade de receber bolsa/ Possibility to have a scholarship	23	45,1%
Amigos, família ou parceiro/ Friends, family or partner	9	17,6%
Reputação acadêmica positiva/ Positive academic reputation	35	68,6%
Outro / Other	1	2,0%

### APPENDIX CC - TABLE 38 - CONTACTING UFMG - PRE-ARRIVAL STAGE

 $Table \ \ 38-Contacting \ UFMG-Pre-arrival \ Stage$ 

First contact with UFMG	Contagem/ Score	N % da coluna/ N % of column
Meu possível orientador(a) naquele momento/ My possible Advisor at that moment	32	62,7%
A Pós-graduação da qual faço parte atualmente/ The Graduate Program that I am in, nowadays	17	33,3%
Depart. responsável pela Pós-grad que eu tinha interesse/ Depart that holds the Grad Prog	13	25,5%
Diretoria de Relações Internacionais - DRI/ International Relations Office - DRI	6	11,8%
Pró-Reitoria de Pós-graduação – PRPG /Graduate Program Pro-Rectory	2	3,9%
Reitoria/ Rectory	0	0,0%
Amigos, família ou parceiro/ Friends, family or partner	13	25,5%
Outro / Other	3	5,9%

#### APPENDIX DD – TABLE 39 – UFMG COMMUNICATION CHANNELS - PRE-ARRIVAL STAGE

Table 39 – UFMG Communication Channels – Pre-arrival Stage

Communication Channels	Contagem/ Score	N % da coluna/ N % of column
Telefone/ Phone	11	21,6%
E-mail/ Email	47	92,2%
Site da UFMG/ UFMG Website	14	27,5%
Site da Pós-graduação/ Graduate Program Website	18	35,3%
Site do Departamento/ Department Website	10	19,6%
Redes sociais (Facebook, Linked in, Instagram, etc.)/ Social Networks (Facebook, Linked in, Instagram, etc.)	6	11,8%
Contato presencial/ In person	9	17,6%
Outro / Other	0	0,0%

# APPENDIX EE – TABLE 40 – UFMG COMMUNICATION CHANNEL POSITION – PRE-ARRIVAL STAGE

Table 40 – UFMG Communication Channel Position – Pre-arrival Stage

UFMG Communication Channel – Pre-arrival stage	Média/ Average
Telefone/Phone	5,1
E-mail/Email	9,2
Facebook	3,4
Instagram	2,8
Linked in	2,9
Redes sociais acadêmicas (ex: Research Gate, etc.)/ Academic Social Networks (e.g.: Research Gate, etc.)	4,4
Twitter	2,7
Youtube	2,8
Tumbir	2,1
Medium	2,1
Flickr	2,0

# APPENDIX FF – TABLE 41 – UFMG COMMUNICATION CHANNELS – INFORMATION CONTENT QUALITY – PRE-ARRIVAL STAGE

Table 41 – UFMG Communication Channels – Information Content Quality – Pre-arrival Stage

UFMG Communication Channels – Information Content Quality – Pre-arrival stage	Média/ Average
Aluguel-estadia/ Housing-places for living	4,1
Custo de vida/ Living expenses	4,0
Transporte (ônibus, metrô e aplicativos)/ Transportation (Buses, subway and apps)	4,5
Grupos de acolhimento/ Support groups	5,0
Contato com pessoas do mesmo país/ Contact with co-nationals	4,3
Contato com grupos de estudantes internacionais/ Contact with groups of international students	4,8
Serviços de Saúde (Sistema Público de Saúde e Planos de Saúde Particulares) / Health Insurance (Public Health System and Private Health Insurance)	4,0
Matrícula na UFMG e outros assuntos acadêmicos/ Enrollment process at UFMG and related academic matters	6,2
Visto de estudante e assuntos afins (visto, registro nacional de estrangeiro, CPF, Federal Police, etc.)/ Student visa and related matters (visa, national foreign registration, CPF, Federal Police, etc.)	5,1

### APPENDIX GG – TABLE 42 – UFMG HOST EVENT

**Table 42 – UFMG Host Event** 

Yes/No	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Não/No	29	56,9	56,9	56,9
Sim/Yes	22	43,1	43,1	100,0
Total	51	100,0	100,0	

#### APPENDIX HH – TABLE 43 – UFMG HOST EVENT PARTICIPATION

Table 43 – UFMG Host Event Participation

UFMG Host Event Participation	Frequência/ Score	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
No/Não	4	7,8	18,2	18,2
Yes/Sim	18	35,3	81,8	100,0
Total	22	43,1	100,0	
Missing Value	29	56,9		
Total	51	100,0		

### APPENDIX II – TABLE 44 – UFMG HOST – SETTLEMENT STAGE

Table 44 – UFMG Host – Settlement Stage

UFMG Hostes	Contagem/ Score	N % da coluna
Amigos, família ou parceiro(a)/ Friends, family or partner	24	47,1%
Diretoria de Relações Internacionais - DRI/ International Relations Office - DRI	10	19,6%
Pró-reitoria de Pós-graduação - PRPG/ Pro-Rectory Office	4	7,8%
Reitoria/ Rectory	0	0,0%
Secretaria da Pós-graduação/ Graduate Program Reception	24	47,1%
Secretaria do Departamento/ Department Reception	5	9,8%
Departamento de Registro e Controle Acadêmico - DRCA/ Academic Registration and Control Department	1	2,0%
Orientador / Advisor	8	15,7%
Outro / Other	1	2,0%

# APPENDIX JJ – TABLE 45 – UFMG COMMUNICATION CHANNELS – SETTLEMENT STAGE

Table 45 – UFMG Communication Channels – Settlement Stage

UFMG Communication Channels – Settlement Stage	Média/ Average
Telefone/ Phone	5,9
E-mail/Email	8,8
Facebook	5,1
Instagram	3,9
Linked In	3,2
Redes sociais acadêmicas (ex: Research Gate, etc.)/ Academic Social Networks (e.g.: Research Gate, etc.)	4,1
Twitter	3,1
YouTube	3,5
Tumblr	2,4
Medium	2,4
Flickr	2,3

# APPENDIX KK – TABLE 46 – UFMG INFORMATION CONTENT QUALITY – SETTLEMENT STAGE

Table 46 – UFMG Information Content Quality – Settlement Stage

UFMG Information Content Quality – Settlement Stage	Média/ Average
Aluguel-estadia/ Housing-places for living	7,4
Supermercados/ Supermarkets	6,9
Bares, Restaurantes e Cafés/ Bars, Restaurants and Coffee Shops	5,9
Serviços de Saúde (Postos de Saúde e Hospitais/ Health Services (Free Health Care branches and Hospitals)	7,7
Universidade e locais relacionados (DRI, Biblioteca, Reitoria, etc./ University and academic matters (DRI, Library, Reitoria, etc.)	7,8
Bancos, Caixas eletrônicos e Agências de Câmbio/ Banks, ATMs and Exchange Agencies	8,1
Transporte (ônibus, metrô e aplicativos)/ Transportation (Buses, subway and apps)	7,7
Esporte, Lazer e espaços de recreação/ Sports-Leisure-Recreational places	6,3
Cinemas e Casas shows / Cinema-Theater	5,7
Eventos, Feiras e Festivais/ Events, Fairs and Festivals	6,3
Rotas-nomes de ruas/ Routes-names of streets	6,8
Procedimentos burocráticos e documentação (visto, registro nacional do estrangeiro, CPF, Polícia Federal, etc.)/ Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.)	8,4

# APPENDIX LL – TABLE 47 – INFORMATION SOURCES – HOUSING-PLACES FOR LIVING - SETTLEMENT STAGE

Table 47 – Information Sources – Housing-places for Living – Settlement Stage

Information Sources – Housing-places for living - Settlement Stage	Contagem/ Score	N % da coluna/ N % of column
Amigos-outros estudantes do mesmo país/ Friends-other students from the same country	19	37,3%
Amigos-outros estudantes de outros países/ Friends-other students from other countries	14	27,5%
Amigos-outros estudantes brasileiros/ Friends-other Brazilian students	26	51,0%
Amigos estrangeiros que residam ou já residiram em BH/ Friends- foreigners that live or have already lived in BH	12	23,5%
Família-parceiro(a)/ Family-partner	3	5,9%
Vizinhos/ Neighbours	2	3,9%
Funcionário da UFMG/ Worker from UFMG	5	9,8%

# APPENDIX MM – TABLE 48 – INFORMATION SOURCES – UNIVERSITY AND ACADEMIC MATTERS (DRI, LIBRARY, RECTORY, ETC.) - SETTLEMENT STAGE

 $Table \ 48-Information\ Sources-University\ and\ Academic\ Matters\ (DRI,\ Library,\ Rectory,\ etc.)-Settlement\ Stage$ 

Information Sources – University and academic matters (DRI, Library, Reitoria, etc.)	Contagem/ Score	N % da coluna/ N % of column
Amigos-outros estudantes do mesmo país/ Friends-other students from the same country	13	25,5%
Amigos-outros estudantes de outros países/ Friends-other students from other countries	13	25,5%
Amigos-outros estudantes brasileiros/ Friends-other Brazilian students	26	51,0%
Amigos-outros estrang que residam ou já residiram em BH/ Friends-other foreigners that live or have already lived in BH	8	15,7%
Família-parceiro(a)/ Family-partner	2	3,9%
Vizinhos/ Neighbours	0	0,0%
Funcionário da UFMG/ Worker from UFMG	6	11,8%

### APPENDIX NN – TABLE 49 – INFORMATION SOURCES – BANKS, ATMS AND EXCHANGE AGENCIES - SETTLEMENT STAGE

Table 49 – Information Sources – Banks, ATMs and Exchange Agencies – Settlement Stage

Information Sources – Banks, ATMs and Exchange Agencies - Settlement Stage	Contagem/ Score	N % da coluna/ N % of column
Amigos-outros estudantes do mesmo país/ Friends-other students from the same country	9	17,6%
Amigos-outros estudantes de outros países/ Friends-other students from other countries	8	15,7%
Amigos-outros estudantes brasileiros/ Friends-other Brazilian students	21	41,2%
Amigos-outros estrang que residam ou já residiram em BH/ Friends-other foreigners that live or have already lived in BH	9	17,6%
Família-parceiro(a)/ Family-partner	1	2,0%
Vizinhos/ Neighbours	1	2,0%
Funcionário da UFMG/ Worker from UFMG	4	7,8%

# APPENDIX OO – TABLE 50 – INFORMATION SOURCES – TRANSPORTATION (BUSES, SUBWAY AND APPS) - SETTLEMENT STAGE

Table 50 – Information Sources – Transportation (Buses, Subway and APPs – Settlement Stage

Information Sources – Transportation (Buses, subway and apps)] - Settlement Stage	Contagem/ Score	N % da coluna/ N % of column
Amigos-outros estudantes do mesmo país/ Friends-other students from the same country	13	25,5%
Amigos-outros estudantes de outros países/ Friends-other students from other countries	12	23,5%
Amigos-outros estudantes brasileiros/ Friends-other Brazilian students	24	47,1%
Amigos-outros estrang que residam ou já residiram em BH/ Friends-other foreigners that live or have already lived in BH	10	19,6%
Família-parceiro(a)/ Family-partner	1	2,0%
Vizinhos/ Neighbours	2	3,9%
Funcionário da UFMG/ Worker from UFMG	4	7,8%

# APPENDIX PP – TABLE 51 – INFORMATION SOURCES – BUREAUCRATIC PROCEDURES AND DOCUMENTATION (VISA, NATIONAL FOREIGN REGISTRATION, CPF, FEDERAL POLICE, ETC.) - SETTLEMENT STAGE

Table 51 – Information Sources – Bureaucratic Procedures and Documentation (Visa, National Foreign Registration, CPF, Federal Police etc. – Settlement Stage

Information Sources – Bureaucratic procedures and documentation (visa, national foreign registration, CPF, Federal Police, etc.)] - Settlement Stage	Contagem/ Score	N % da coluna/ N % of column
Amigos-outros estudantes do mesmo país/ Friends-other students from the same country	13	25,5%
Amigos-outros estudantes de outros países/ Friends-other students from other countries	12	23,5%
Amigos-outros estudantes brasileiros/ Friends-other Brazilian students	24	47,1%
Amigos-outros estrang que residam ou já residiram em BH/ Friends-other foreigners that live or have already lived in BH	10	19,6%
Família-parceiro(a)/ Family-partner	1	2,0%
Vizinhos/ Neighbours	2	3,9%
Funcionário da UFMG/ Worker from UFMG	4	7,8%

### APPENDIX QQ – TABLE 52 – SCHOLARSHIP BENEFIT

Table 52 – Scholarship Benefit

Scholarship Benefit	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Não/No	4	7,8	7,8	7,8
Sim/Yes	47	92,2	92,2	100,0
Total	51	100,0	100,0	

#### APPENDIX RR - TABLE 53 - SCHOLARSHIP TYPE

Table 53 – Scholarship Type

Scholarship type	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Other	4	7,8	7,8	7,8
Banco Santander	1	2,0	2,0	9,8
Capes	26	51,0	51,0	60,8
Capes e depois CNPQ/ Capes and after CNPQ	1	2,0	2,0	62,7
CNPQ	17	33,3	33,3	96,1
FAPEMIG	2	3,9	3,9	100,0
Total	51	100,0	100,0	

# APPENDIX SS – TABLE 54 – FIRST INFORMATION SOURCE CHOICE - AFTER ARRIVAL - SETTLEMENT STAGE

Table 54 – First Information Source Choice – After Arrival – Settlement Stage

First Information Source choice - After arrival - Settlement Stage	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Colega brasileiro do mestrado ou doutorado/ A Brazilian friend from the Master's or the Ph.D.	13	25,5	25,5	25,5
Colega estrangeiro do mestrado ou doutorado/ Foreigner friend from the Master's or Ph.D.	5	9,8	9,8	35,3
Meu orientador(a)/ My advisor	14	27,5	27,5	62,7
Secretaria do Programa - telefone ou e-mail/ Reception of my Graduate Program - telephone or email	17	33,3	33,3	96,1
Web site da minha Pós-graduação/ Web site of my Graduate Program	2	3,9	3,9	100,0
Total	51	100,0	100,0	

### APPENDIX TT – TABLE 55 – HEALTH MATTERS - SETTLEMENT STAGE

Table 55 – Health Matters – Settlement Stage

Health Matters - After arrival - Settlement Stage	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Não/No	30	58,8	58,8	58,8
Sim/Yes	21	41,2	41,2	100,0
Total	51	100,0	100,0	

### APPENDIX UU – TABLE 56 – HEALTH MATTERS – BACKUP

Table 56 – Health Matters - Backup

Health Matters – Backup	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Clínica Particular/ Private Clinic	3	5,9	14,3	14,3
Fui atendido no Hospital que o seguro médico me indicou./ I was attended at the hospital that the health insurance recommended me	1	2,0	4,8	19,0
Hospital Público/ Public Hospital	4	7,8	19,0	38,1
Posto de Saúde/ Free Health Care Center	11	21,6	52,4	90,5
resolvi sozinho com ajuda de um farmaceuta na drogaria/ I figured it out with the help of a pharmacist at the drugstore	1	2,0	4,8	95,2
Seguro médico internacional/ International health insurance	1	2,0	4,8	100,0
Total	21	41,2	100,0	
Missing value	30	58,8		
Total	51	100,0		

### APPENDIX VV - TABLE 57 – SETTLEMENT STAGE IN BH - MG – BR

Table 57 – Settlement Stage in BH – MG – BR

Settlement Stage in BH - MG – BR	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Não. Eu já passei por ele./ No. I have already gone through it.	49	96,1	96,1	96,1
Sim. Estou passando por ele./ Yes. I am going through it.	2	3,9	3,9	100,0
Total	51	100,0	100,0	

### APPENDIX WW - TABLE 58 - SETTLEMENT STAGE IN BH - MG - BR - DURATION

Table 58 – Settlement Stage in BH – MG – BR – Duration

Settlement Stage in BH - MG – BR - Duration	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Até 30 dias/ Up to 30 days	10	19,6	20,4	20,4
Entre 1 e 2 meses/ Between 1 and 2 months	15	29,4	30,6	51,0
Entre 3 e 6 meses/ Between 3 and 6 months	19	37,3	38,8	89,8
Mais de 7 meses/ More than 7 months	5	9,8	10,2	100,0
Total	49	96,1	100,0	
Missing value	2	3,9		
	51	100,0		

### APPENDIX XX – TABLE 59 – CONTACT FREQUENCY WITH OTHER PEOPLE

**Table 59 – Contact Frequency with Other People** 

Contact frequency with	Média/ Average
Pessoas do seu país de origem/ People from your home country	4,2
Pessoas de outros países/ People from another country	3,5
Brasileiros(as)/ Brazilians	4,4

# APPENDIX YY – TABLE 60 – COMMUNICATION CHANNELS – CONTACT WITH PEOPLE FROM THE HOME COUNTRY

Table 60 – Communication Channels – Contact with People from the Home Country

Communication Channels - People from your home country	Contagem/ Score	N % da coluna/ N % of column
Telefone/ Phone	34	66,7%
E-mail/ Email	16	31,4%
Facebook-Messenger	25	49,0%
Instagram	15	29,4%
Linked in	3	5,9%
Whatsapp/Telegram	40	78,4%
Redes sociais acadêmicas (Ex: Research Gate, etc.)/ Academic Social Networks (Ex: Research Gate, etc.)	5	9,8%
Twitter	1	2,0%

# APPENDIX ZZ – TABLE 61 – COMMUNICATION CHANNELS – CONTACT WITH PEOPLE FROM ANOTHER COUNTRY

Table 61 - Communication Channels - Contact with People from Another Country

Communication Channels - Contact with People from another Country	Contagem/ Score	N % da coluna/ N % of column
Telefone/ Phone	17	33,3%
E-mail/ Email	16	31,4%
Facebook-Messenger	21	41,2%
Instagram	15	29,4%
Linked in	2	3,9%
Whatsapp/Telegram	34	66,7%
Redes sociais acadêmicas (Ex: Research Gate, etc.)/ Academic Social Networks (Ex: Research Gate, etc.)	8	15,7%
Twitter	1	2,0%

# APPENDIX AAA – TABLE 62 – COMMUNICATION CHANNELS – CONTACT WITH BRAZILIANS

Table 62 - Communication Channels - Contact with Brazilians

Communication Channels - Contact with Brazilians	Contagem/ Score	N % da coluna/ N % of column
Telefone/ Phone	24	47,1%
E-mail/ Email	26	51,0%
Facebook-Messenger	25	49,0%
Instagram	17	33,3%
Linked in	3	5,9%
Whatsapp/Telegram	39	76,5%
Redes sociais acadêmicas (Ex: Research Gate, etc.)/ Academic Social Networks (Ex: Research Gate, etc.)	7	13,7%
Twitter	2	3,9%

### APPENDIX BBB - TABLE 63 - NPS

Table 63 – NPS

Profile	Frequência/ Frequency	Porcentagem/ Percentage	Porcentagem válida/ Valid percent	Porcentagem acumulativa/ Cumulative percentage
Detrator / Detractor	3	5,9	5,9	5,9
Passivo / Passive	4	7,8	7,8	13,7
Promotor / Promoter	44	86,3	86,3	100,0
Total	51	100,0	100,0	

#### APPENDIX CCC - INTERVIEWS EXCERPTS

#### Category A - PEC-PG

#### A.1 - Escolha pelo PEC-PG / PEC-PG Choice – interviews excerpts

"Cape Verde is a country that is constantly developing. It did not have a public or private university. So, all students had to leave. The United States, Cuba, Germany, France, and Brazil, other countries had cooperation. So, these programs were essential for Cape Verde's youth. Then, we have always known the PEC-G and the PEC-PG, the Ministry of Education of Cape Verde broadcasts on the radio, social networks" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"In fact, I was on a PEC-G (Undergraduate Student Agreement) scholarship. I have lived in Brazil before, from 2009 to 2013, in São Paulo. Moreover, I had always had this perspective to pursue an academic career and come back to do my doctorate one day. So, after I finished my degree, I took a master's degree, I went to Portugal to do my master's. Then I returned to Cape Verde. I worked to have professional experience and to be able to compare the two areas I have taught and worked. With that, I ended up getting into the clinical routine, but I was not satisfied with that. So, I decided to try the PEC-PG, Ph.D. scholarship. However, as a PEC-G scholarship holder, I had to wait a few years, 2 or 3 years, to apply again" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

# A.2 - Primeiro contato Edital PEC-PG / First contact with Public Tender PEC-PG – interviews excerpts

"So, a Brazilian friend I met in Guimarães posted on Facebook. That is when I had my first contact with the PEC Public Tender. I read the Public Tender and saw that I had the requirements. One of the countries that maintained cooperation was the countries of Africa, the Caribbean, and the Pacific - which includes these countries - and I had already done a master's degree in Portugal. So, I could go to another level for the doctorate. It was easy because my language is the same, it is Portuguese. I had no doubts about the Public tender. So, I submitted my proposal, after being accepted, I applied for the scholarship. The first thing was to get in touch with the Federal University of Minas Gerais, get an advisor, and only after that I submitted the proposal for the scholarship" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I think it was by other students from Cuba in the computer area because they had already participated in the previous year, 2013. Furthermore, they were accepted in 2013 to enter 2014. So, they were neighbors in my city, and they shared this information because I did not find it. I did not know that Brazil had these opportunities for foreigners. And at the time I wasn't looking for anything

about Brazil, just them who had already been accepted, as they were the ones who informed me. So, then I looked it upright on the internet, on the official website for the call, looked at the dates, and planned the process" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

# $\textbf{A.3-Compreens\~ao}\ do\ Edital\ PEC-PG\ /\ PEC-PG\ Public\ Tender\ comprehension-interview\ excerpts$

"It was easy because my language is the same, it's Portuguese. I had no doubts about the Public Tender. So, I submitted my proposal, after being accepted I applied for the scholarship. The first thing was to get in touch with the Federal University of Minas Gerais, get an advisor, only after that I submitted the proposal for the scholarship" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"At first, it was not very complicated because the two languages are very close, and the words I could not understand I put in the translator, and it worked. At the time, I do not remember very well, but at that time, the things I could not understand specifically about the processes, the procedures, then I called, I sent an email to the embassy, and then the person explained to me about what each thing consisted (...)" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

# A.4 - Contato-Dúvidas Edital PEC-PG / PEC-PG Public Tender Contact-questions – interviews excerpts

"The same program. I tried, but I was not really into the question of how to do the project and how to adapt the project to be accepted. So, I think this contributed to my not passing. So, in 2017, a colleague of mine from Benin, whom I saw, had passed. He passed, and I did not. So, I thought, if he passed and I did not, there must be something, he must have put something else in his project that made it possible for him to pass, and I did not. So, I got in touch with him, texted him, "I saw you passed. I also applied, but I could not. I would like you to help me because I want to try again. Then, we talked, and he helped me. I did the projects and sent them to him. He looked and corrected. So, he helped me a lot" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"Directly with the person from the embassy, because she had experience, many years serving students in Cuba, it was much easier. It was also much more immediate to talk to them" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

## A.5 - Bolsa como pré-requisito para estudar PEC-PG / Scholarship as a prerequisite for studying PEC-PG – interviews excerpts

"This is from Brazil, but it has other programs with Portuguese participation, European Union, Cuba, Russian federation. All encourage free international education, but student fees are guaranteed. This cooperation already guarantees and is as if it were free. Networks can be private, but students do not pay. Who pays is the state, the state of Cape Verde, and the state that gives the scholarship" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization)".

#### Category B - Seleção PEC-PG / PEC-PG Application process

### B.7 - Seleção via Capes ou CNPQ PEC-PG / PEC-PG Application process via Capes or CNPQ – interview excerpts

"I decided to look in other countries for options to do a master's or a doctorate, as some countries accept a doctorate without a master's degree. However, I found this call from Brazil this year, specifically 2014. PPG's partnership was with CNPQ, and it was with Capes in previous years. It was the call for a master's degree. Furthermore, I decided to give it a try. It was a well-explained selection process, steps, and sequences of actions to get the scholarship. It was a good option only for foreigners, it was a selection of 100 foreigners from all over the world to be accepted here, but then I tried and got it [...] Until 2013 the master's was always with Capes and the doctorate with CNPQ, but in 2014 they reversed the order" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science)".

## **B.8-** Descrição processo de seleção PEC-PG / PEC-PG Description of Application Process – interview excerpts

"In 2017. It opened CAPES and CNPQ. Then I applied for both. I already had an acceptance letter from the university because I sent the message again to the professor-coordinator of the course telling my trajectory and, asking for the acceptance letter again. So, they sent it to me. Then, I applied in September. In November 2017, the result came out. On February 13, 2018, I arrived in Brazil" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

#### Category C - Aprovação PEC-PG / PEC-PG Approval

# C.9 - Contato com Setor da UFMG após aprovação PEC-PG / Contact with UFMG Sector after PEC-PG approval – interview excerpts

"I didn't contact any sector. I got in touch with the program coordinator and the advisor. Actually, it was a time in Cuba when connectivity was very complicated, firstly. Secondly, I had no idea of the structure of UFMG, which had the International Relations Office, and that was the time of the World Cup. I remember that I sent an email to the advisor, and she just told me, "Well, you will arrive at a time when we have already started classes," because the school schedule had been brought forward due to the World Cup, and classes started in late February. I arrived here on March 3rd, and the course had already begun. It was like that. I didn't have that initial contact with the staff of the International Relations Department. It was direct with the advisor and the program coordinator, even because it was supposed to be published before Christmas and arrived on January 31st. And then everything was in a hurry to travel to Brazil" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"I had to go to the federal police website because the PEC-PG student has less support than the PEC-G student. They assume you already have more autonomy, so DRI gives less support. I participated in some DRI things because I was curious, and I went after them. It was not the other way around. They did not come to me to participate and get to know the city, and I took advantage of this program, especially for the PEC-G" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

# C.10 - Processo do visto de estudante para o Brasil / Student visa process for Brazil - interview excerpts

"Getting a visa for the first time is easy. Just go to the website of the embassy of Brazil, and you have all the information. There is nothing like that on the university's website. The student has to look for it [...] As everything is online, I just followed the checklist, the documents I had to do. I had more difficulty because I am from one island, and I had to travel to another island to apply for a visa. The most significant difficulty was this, leaving an island, catching a plane, 50 minutes, going to another island in the capital to apply, where the Brazilian embassy is located, after I had been approved" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

# C.11 - Descrição da experiência de aprovação PEC-PG / Description of PEC-PG approval experience – interviews excerpts

"In 2017. It opened CAPES and CNPQ, so I applied for both. I already had an acceptance letter from the university, because I sent the message again to the professor-coordinator of the course telling her about my trajectory. I asked for the acceptance letter again. They sent it to me. So, I applied in September. In November 2017, the result came out. On February 13, 2018, I arrived in Brazil" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

## Category D - PEC-PG e Outros Programas - Pós-Graduação / PEC-PG and Other Programs - Graduate Programs

#### D.12 - Escolha da Pós-Grad / Graduate Program choice – interviews excerpts

"The motivation was personal. In short, I met my wife there in Italy, she had lived there for a while, and she had to return to Brazil. After a time, I decided that I already intended to do a doctorate abroad as I was finishing my master's degree. Then, I associated things and learned about the interesting doctoral program. So, I made contact to participate in the selection process [...] I had heard about UFMG in general because of my wife, who also studied here, but I had never heard about the university during my undergraduate and master's degrees. In general, none of the research I studied was related to Brazil, to Brazilian institutions" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"I never applied for Federal. Because when I looked inside the area, the federal [...] is in the top 2 in the area of Computer Science in Brazil. [...] It is one of the best Computer Science universities in Latin America. [...] When I was in Cuba, I always worked in the industrial area. My Cv [...] was not a very high curriculum. I decided not to apply for it and started to apply for others. Capes 5. Because it is Capes 7, DCC (...), I applied for others and was accepted, I was accepted, no. I was accepted as a candidate there at USP [...] So, [...] only if a professor chooses you to enter a Doctorate [...] It happened that the professors who were from data mining were too full. Then [...] I remember that the secretary recommended that I write to one of their professors. Their data mining professor recommended that I write to the Professor here at federal that he was data mining. His name is Wagner Meira, a well-recognized guy in the field. Then I wrote to the Professor, the Professor said yes, that he could be my advisor, but he had many students [...] Then we started the conversation between the Professor and me. Perhaps you know Professor Mario Campos, currently the Dean of UFMG. So[...] we started the conversation, the selection process. Then he said, come on, I do not have a scholarship now. You can come. The DCC is one of the richest faculties in the federal government. Even though they do not have scholarships from Capes or CNPq, they have scholarships from the college. In other words, project grants, that is why he has with LG with Google, with technology companies, so they can give temporary scholarships to students" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"When I chose to go to Brazil, so I chose the country. And then, I saw the University. I started to check and to get more information about it. Yeah! And what I remember is that it is one of the best universities in Brazil and in South America. So, that was very, very amazing for me [...] And also, it's a University that's on top of 400. I think or 500 [...] So, the partnership. It was from my University with this University, you know? They had this agreement. So, yeah! I had to enroll in the Knowledge Management Program on the 1st. This is how Erasmus' agreement works. The program from one country can make [...] it is an agreement with the program in another country. Even though they're not exactly on the same specialization, they can approve it" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"First, because of excellence, right? UFMG has always been an excellent reference for me as a student in my area of expertise, biology. Furthermore, I think I could grow a lot. [...] I applied for UFMG, also followed by proximity. [...] I was in Ouro Preto. So, for me, it was interesting to have this approach. I was close to a large university [...] recognized worldwide. And then, I applied for the test afterward. Because if I had gone to my country and then tried the PEC-PG and then returned, I would have wasted time. And there are also the expenses involved with the ticket, with the visa, all the bureaucracy that I would have. Moreover, going straight through, [...] I would not waste time. I would not even run after all the bureaucratic processes, which require re-application, right?" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# D.13 - Primeiro contato Edital Pós-Grad / First Contact with Graduate Program Public Tender – interviews excerpts

"I tried the first contact through my wife, who contacted DRI from UFMG, but this contact did not go forward. Then I decided to directly contact the person who was then coordinator of the Graduate Program here in the Engineering and Structures department, and there was an exchange of emails, an exchange of ideas, several research possibilities, and he guided me through the various phases of the selection process [...] I applied as an Italian, as a foreigner, but I had no distinction in the selection process. It was the same for foreigners or Brazilians. I was not part of specific programs" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Well, I saw the Public Tender, and the first thing I ask, and that I see almost always [...] if there are restrictions for foreigners, right? or if foreigners go through some filter. Nevertheless, I saw that this Public Tender was open. They favored the type of project. My project was interesting. Because [...] during my undergraduate and graduate studies at the Federal University of Ouro Preto, I became interested in an area that I saw had some gaps" (E9, OP, male, 37, Cape -Green - Ecology, Conservation, and Wildlife Management).

#### D.15 - Contato-Dúvidas Edital Pós-Grad / Graduate Program Public Tender Contactquestions – interviews excerpts

"I had no follow-up. I managed it myself. I printed and read everything to see how to apply—some things I did not understand. I called Brazil to clarify. For example, the UFRJ that I did directly had some doubts. Whether or not you want to come to Brazil to take the test, for example, the interview must be via Skype. You have to make arrangements, know what time, and understand the tests. Sometimes I called the program secretaries, who gave me information. For example, how to pay for the registration; if I were not in Brazil, I would have to find someone to pay for the registration, international transfer, and all this. I spoke directly with the coordinator" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"The DCC Program to me, seems to be [...] one of the most transparent Programs of UFMG. Just by entering their website, you can find all the information you need, without contacting them by phone, everything is there: doubts, prerequisites, documentation, forms. It is all online (...) the information is very clean [...] that we need to join the Program. It is all there. The resolutions [...] and everything else [...] It is on the Program's website. Everything is obvious there and the Help Desk's system too, the system is excellent, it works perfectly. So, sending documents and the process went very smoothly" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

# D.16 - Preenchimento Currículo Lattes - Pós-Grad / Completion of Lattes Curriculum - interviews excerpts

"For me, it was peaceful. As I had already studied here, I was an undergraduate scholarship holder. I already had Lattes. However, I did not update Lattes for five years because there (in Cape Verde), we do not use Lattes very much. So, I had a little trouble filling the Lattes. The rest was fine" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

#### D.17 - Compreensão do Português / Portuguese Comprehension – interviews excerpts

"So, it (Graduate Program website) was a bit difficult because it was in Portuguese. That was a problem, but I use Google Translate, and I have to look through more faculties. Eventually, I found out that there is a communication and Sociology, and I looked over the disciplines, and I saw that there are some subjects I can take, you know? Yeah! I remember that the Portuguese was a problem, but days after days I found out all the information I needed" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

## **D.18 - Contato com Departamento ou possível Orientador / Contact with Department or possible Advisor – interviews excerpts**

"It was because of research affinity because I researched in the master's degree related to the semantic web, in the information science school they research this area. So I identified a Professor through the lattes curriculum. I saw that she was researching this area and got in touch with her. Furthermore, another thing too, I did the crossover of Facebook profiles, I saw that she was a friend of my former advisor in Portugal, so I could also see that it could be a contact area. Then I got in touch, she accepted. I wrote a project in this line of the semantic web, bringing together an instrument and representation of knowledge in the area of information science and bringing more to the area of technology, applying it in the context of information science" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I was already looking at several Graduate Programs, and I think there were three that I liked: Santa Catarina and USP or UNESP and this one. So I got in touch with the Help Desk that their email is available on the website. First I tried it here, then got an answer from secretary Nely. She said that she would forward my project to several professors in my line of research, which is information and knowledge management, so she started the process through her secretary. Moreover, I wrote the emails in Spanish back then, and she gave me positive feedback. I was surprised at how they made this receipt for me because they did not know me. When it was the PPGCI, everything was together with the two programs. I am currently linked to the PPGCI" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I was in France, so I wrote everything, the project in Portuguese. I sent an acceptance letter, which I asked the teachers. So, I kept in touch, sent e-mails, called the professors to talk to them directly [...] I passed UNICAMP, Pelotas and UFRJ. Because I made the PEC-PG directly. At PEC-PG, I was selected here at UFMG, USP, and UNICAMP. I did directly in Pelotas, at UFRJ, and UNICAMP. So, I was selected by four universities. However, I decided to come here because I already knew Belo Horizonte. And I decided to return to UFMG" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"With my advisor, just by email. Later, when I came here for vacation, I found the other professor because my advisor was on vacation, it was January, and I had only met one professor, who was also the only one here in the department. It was at the beginning of January, [...] Coincidentally, he was the one who was the

coordinator at the time I made the first contact. So, it was luck that he was in the same line of research, so the first contact was with him because he was a coordinator" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"I think that I entered the doctorate and then chose who could guide me. However, I know that the people who could guide me and everyone would have a vacancy. Then, I would have to choose, and then I chose a supervisor, that Paula Cabral Eterovick" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

### D.19 - Bolsa como pré-requisito para estudar / Scholarship as a prerequisite for studying – interviews excerpts

"First, I was interested in asking what the areas covered here in the department were, to see if there was something related to what I liked to do and also the various more bureaucratic issues, the availability of scholarships, scholarship value, functioning of the selection process, something like that [...] When I was doing the selection process, the staff had told me that I had good chances of having a scholarship and, after I passed, the staff had already told me the date they would start receiving it. It was, I think, two or three months after the beginning of the semester, but I already knew I was going to get paid during that period" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"It's a continuous flow. So, you can enter at any time of the year. But the scholarships are released, I think, on these dates, and then they got me, for now, a scholarship [...] those I told you are those internal scholarships from the department. And that's why I had this problem when applying for a visa, these things" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

## Category E - PEC-PG e Outros Programas - Aprovação Pós-Grad / PEC-PG and Other Programs - Graduate Program Approval

## E.20 - Processo do visto de estudante para o Brasil / Student visa process for Brazil - interviews excerpts

"As soon as I was approved, the CNPQ staff sent me all the documents because I had to get a student visa. Then I got in touch with the Brazilian Embassy in Cape Verde. When I got the visa, upon arriving in Brazil, I went first to the Federal Police, and then I went to the DRCA to enroll [...] As I said earlier, the CNPQ sends you some documents that prove that you will be a scholarship holder. So, you don't have to prove how you're going to stay in Brazil. In addition to documents stating which university, you came from, also documents stating that the university will help you during these four years of your doctorate. So, all these documents make it easy. Furthermore, they are sent directly to the embassy. Because when the visa is for students, it's more relaxed. Well, you are already in the right direction, especially when you are a scholarship holder. So, the visa issue is more relaxed" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"The visa process was rapid once I received the acceptance letter for the selection process. In Italy, there are two consulates, I went there to the consulate in Rome, and it was pretty fast. There is no appointment for the day, time. It's a bit disorganized, but I just had to hand in all the documentation, and they answered me. I think it was time to grant the visa without problems. And then I received it, I left the passport there, and I received the passport with the visa at home, along with, I think it was the approval of my title made in Italy, there at the consulate, recognition of the signature (...) I don't remember what it was" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Yes, yes, I remember there was a problem because, especially the Brazilian Embassy in Cuba or the Brazilian Embassy in any country, only grants visas for development programs, that is, programs that have public notices, that you can enter there and see the accepted list, got it? [...] They called the Graduate Program Help Desk. They called my advisor [...] They wanted to check documents that they did not have access to. That Capes and CNPQ documents are public documents. They can see the notice and see the list of acceptances. Then you don't have to [...] prove anything. Nevertheless, I wasn't on any of those notices in my case. Then, it was more local, and they wanted to check with the faculty, the department [...] It's a continuous flow. So, you can enter any part of the year. But the scholarships are released, I think, on these dates, and then they got me, for now, a scholarship [...] those I told you are those internal scholarships from the department. And that's why I had this problem when applying for a visa, these things" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"So, there was still the visa that took longer than expected to get [...] So, with the consulate it was bad conversation. Because... so, I started to talk with the consulate in in December, when I was accepted from my university, because I had to see what documents I need to give them for the visa and they guided me in the communication with the University, you know? And eventually, they had like a Christmas break. I think in December usually it's free. But in January they responded very late, like after 20 January and in February, at the end I should just leave the country. Then, when they responded, I was I was in hurry to get all the documents, then (...) I was talking with the consulate for the visa, and they needed this learning agreement and a letter of acceptance and my passport. Also, I had to make an insurance in my country and also one document, that was proving that I have enough money to live in Brazil, for my saying. That was also from Erasmus (...) In the Bucharest that's a single consulate we have in my country. And then, I was on 22 February there and I let the documents and they told me that in one week the visa will be ready (..) But it's it was not like a proper interview, I would say, they just checked my documents and they asked me if I have some information about Brazilian stuff like this it was it was very easy, actually (...) So, on the 29 it was done. Exactly in the day I was leaving" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

# E.22 - Contato com Setor da UFMG após aprovação Pós-Grad / Contact with the UFMG Sector after Graduate approval – interviews excerpts

"So, as I told you, I had studied here before. I studied nutrition at the nursing school, inside the medical school. So, I already knew the entire campus. When I

arrived, I went to graduate school in the Help Desk. First, I contacted the advisor, sent the result to her and the co-advisor. When I arrived, I texted her to tell her when I was coming to Brazil. I got my visa in Paris, came to Belo Horizonte, and a few days later, I went to university. I got in touch with her, solved the "paperwork", Federal Police, everything" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"Well, I am curious, so I went to the UFMG website. I went to see if there was any support service for international students, and I saw the DRI. I got in touch with the DRI. The information they gave me was each saying one thing. One said that I was guaranteed a place in the house. Another said that I had no right because I was a graduate student. The information didn't quite match, so I had to look at other ways and contact other people who had a house to rent. Until that moment, I was still in Cape Verde. I did the entire process in Cape Verde. From the 'oment I was approved, when the list came out, I started to contact students and colleagues who were already studying at UFMG to obtain information. My brother, who studied at UFOP, Ouro Preto, also gave me much information. He studied at PEC-G, he graduated in Civil Engineering, so he already knew BH'' (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"Then, I think it was the part where there were significant complications, and maybe it wasn't very organized because after I received this, this one was accepted in December 2014, when the PEC-PG had approved me, they sent me a letter too, and with this letter, I had to go to the Consulate of Brazil, where my name was already at the Consulate of Brazil in Havana. My name was there. Although I took the letter proving my acceptance, I had to apply for a visa to Brazil. Then, I didn't receive guidance from any department at UFMG. I went to apply for a visa with this letter from PEG-PG. Furthermore, my name was there at the Consulate, so I bought the ticket, arrived here, and I never received more information about whom I had to contact, how the process was after arriving here, what I had to do, and which department to do contact. Then yes, in this sense, there is this lack of information at UFMG, that maybe there was no communication between PEC-PG and UFMG because no one received me, no one knew me, no one knew I was coming, only the program secretary knew I was coming" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"So. Firstly, I was looking for Mrs. Beatriz. And she was responding very fast, like on WhatsApp or email, sometimes. And She was explaining me all the process I have to go through, all the documents I was needing, all the information, where I can find it. I was also asking her about the visa. She had not so many informations about the visa because this depends by country. But I was asking everything. You know? [...] Then there were the communications with the DVI (DRI) with the... I don't exactly know now. It's the International Office" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

### E.23 - Descrição da experiência da aprovação Pós-Grad / Description of the Graduate Approval Experience / Graduate Approval Experience Description – interviews excerpts

"Look, as a PEC-G student, the fact of being a pioneer, who goes through everything to open doors for others, everyone goes through that, so we went through that. Then, when the paths we followed already existed, we opened several doors. So, whoever came had no problem anymore. Nevertheless, come to think of it, there will always be problems in the world, so, come to think of it, people will manage to go through it. As I left and returned, it was as if I had left my house and gone back home [...] That's why I preferred to go back to Belo Horizonte. If not, I would prefer to stay in Pelotas or at UFRJ because I selected these two. This weighed on my decision to return to Belo Horizonte [...] I already knew where to stay, which house to live in. Because, if I went to Rio, where I don't dominate anything, I only know UFRJ. So, I would have to look for a house, do it all over again, or in Pelotas too, which I've never been to" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

#### Category F - Matrícula UFMG / UFMG Enrollment

#### F.24 - Recepção na UFMG / Reception at UFMG – interviews excerpts

"There was a general strike when I arrived, so it was pretty difficult. If I didn't have the support of some people from here, people who are friends from Belo Horizonte. I had an important person who was my Godmother (DRI Buddy) that DRI gave a godmother who helped me move here in the city. I arrived in the second half of 2015. On July 17th, there was a general strike. The services were almost all closed. It was tough to implement the scholarship, and I almost left because they did not answer, and I had to ask the advisor for support, so she contacted the secretariat, and the secretariat contacted Capes and the problem. But if it were just me, I would not have solved it" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"In fact, I think my arrival in Brazil was more peaceful for me because my husband was already here studying, and he knew all the processes I had to do. He picked me up at the airport. I didn't know anything. He took me to the Federal Police to do the CPF in Downtown, many documents that without him, if I had arrived without knowing anyone in the city, maybe it would have been too much work to do. I wouldn't know if maybe in I month I could have done everything I did because he was here, but nobody knew I had arrived. And I think it was a lack of communication, of information. I don't know if it happened like that for everyone at the university" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"It was smooth! I went there one day, with all my documents, and on the same day, I managed to enroll. However, I called there beforehand (DRCA) to find out the documents. Furthermore, as I have friends who have had the same experience, they told me what documents I would have to bring in advance. So, it was smooth! [...] I arrived, then I went to the house of some Cape Verdeans" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I already knew Belo Horizonte because I was here in 2012 on that cultural exchange. I already had an idea of mobility within the city. Of course, it has always impacted you because it's different for you to be here for a month and then stay to live. Then I went to UFMG, took a bus, asked which bus I take, where I needed to get off, and got there [...] I arrived at FAFICH, asked the guard where

the Communication department was, he said on the fourth floor, and then I went there. When I arrived on the fourth floor, there I was, in addition to the secretary, my advisor was there, which made it more accessible, that was the moment, the first personal contact with my advisor. Then they guided me correctly, I showed them the documents, and after handing over the documents, they instructed me to go to the International Relations Department to finish the process of handing over documents, the scholarship business, and all that. This was the first contact" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"In fact, it makes a welcome event. Yes, at the beginning of each semester [...] in the department's theater, the department welcomes new graduate students. Then, you have to say, [...] they entered [...] this year, these students, these are foreigners, these are local, something like that. You have one minute to introduce yourself. I'm the guy. I'm from that country [...] So, it's really cool! So, people already know that you are a foreigner. They know that you are Latino, from which country you are. And they too, usually make an invitation, the whole crowd [...] give a hug, to the people who are arriving. So, [...] it's really cool [...] this welcome activity to the program" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

# F.25 - Procedimentos para se tornar aluno(a) da UFMG / Procedures for becoming a UFMG student – interviews excerpts

"There is also my girlfriend who came with me, she knew a girl here from Belo Horizonte, and this girl knew a guy from the DRCA. So, he pulled strings inside, and I could do the registration and everything. But it was also an atypical situation, UFMG was on strike, so it was more complicated to get to talk to people" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"Everything was very complicated, including registration. I managed to do everything because my husband had already done it. And he took me to the indicated places. But without him, I would have had to look for someone else to help me. In fact, I think I was the first foreigner to arrive here (at ECI) for this PEC-PG program at that time. The Secretary and the Course Board did not know the processes they should have carried out for my case. They didn't know anything. She (Secretary) would write any questions to CNPQ or send me to the scholarship department. I think it was the first experience here at the Secretary because other students arrived a year or two later" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"It was super smooth! I went there one day, with all my documents, and on the same day, I managed to enroll. However, I called there beforehand (DRCA) to find out the documents. And, as I have friends who had already had the same experience, they told me in advance what documents I would have to bring. So, it was smooth!" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"The registration process was a little more complex, as there is usually a requirement to have the foreigner's identity card (RNE) at the time of the registration process. But, at least at the time, there was a very long waiting list to book. At the same time, the deadline for enrolling in the course was about to pass.

I remember going to the Federal Police quite often, waiting in line because there was no way to make an appointment. This part, I think, could improve a little. Now I don't know what it's like. And there aren't many foreigners here in the department either [...] One of the main problems, when I arrived, was getting an identity card because to enroll there was a deadline for the graduate program of one week, I don't know, and I needed to have the RNE (Foreigner National Registration) ready, but the Federal Police's appointment deadline was three days, then I had to go there, wait in line, five, six hours, hoping to have an empty space to be seen. This was a bit of a lack of knowledge in the department due to the rarity of having foreign students" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"There were a lot of documents. Actually, what I remember is that Brazil has a big bureaucracy, like a lot of documents that you need, and they're kind of difficult to get. Like, if you are new in that country, take some time to think, to discover the documents you need. To know how to complete them [...] So, first, there were these documents I had to make at the University (...) So (...) I needed the ID card first time or a temporary one. And to get one of them, I needed to go to the Post office to buy Something. I don't remember exactly. To pay a tax, and with that, I had to go to the police. They (...) gave me an ID (...). I think it took like three weeks until I got that ID. With that ID and some other documents, I had to complete a form online and print it. Then I still needed (...) Something from the house. Like (...) electricity Bill or Something like that (...) So, I had to get that, and eventually, I got all these documents, and I went to get the resident permit. That was a bit weird because there I have to pay a tax (...) I want to pay it now, and I got the money to pay it there (...), but we don't accept money (...) you must go to the bank, to the Brazilian bank to pay. And I was OK. I'm going to the bank, and at the bank, I discovered that I cannot pay with cash. I had to pay with the card, and I was not owning a card because I was not Brazilian, and I was like. What? How can I pay? How can I get the residence permit if I'm not Brazilian? If I cannot pay on the Banco, do Brasil, (...)? That was very weird. Eventually, I talked with someone on the street, and I gave him money, and he paid with his card my tax. That was weird" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"So, all this was helped by African colleagues who had been here longer. From the CPF, creating a bank account, renting a house, documents for the university. Finally, documents for visa renewal, bus logistics, how you get to another city, times, dates that you have to put, of the important phones. Anyway, all this, given mainly by colleagues who arrived before" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

### F.26 - Contato com a Diretoria de Relações Internacionais - DRI / Contact with the International Relations Office - DRI - interviews excerpts

"I don't remember the name of the person who received me there, but she said: "ah, I didn't know you were arriving, you missed all the activities we do here for foreigners." Because before the semester starts, they do various activities, take a tour of the city. I never knew any of this. I didn't get an email with any information, and she was sad because she didn't know I was coming either. And I missed all

this experience of foreign students, getting to see the city. She just gave me a shirt from that activity they did, but that was it. She didn't know and couldn't do anything else" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I had to go to the federal police website because the PEC-PG student has less support than the PEC-G student. It assumes you already have more autonomy, so DRI gives less support. I participated in some DRI things because I'm curious, and I went after them. It wasn't the other way around. They didn't come to me to participate and get to know the city, and I took advantage of this program, especially the PEC-G. To get a visa for the first time, it's easy. Just go to the website of the embassy of Brazil, and you have all the information. There's nothing like that on the university's website, the student who has to look for it" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I had no contact with the DRI because I already knew how to do it because of the PEC-G. For example, the CPF doesn't change. It's the same CPF; I already had my CPF here. The bank, I had an account at Banco do Brasil, I did not close it, but as I left (Brazil) for almost three years, I had to go to the bank to update my data and ask for another card, which was expired [...] At this moment, as I already had a lot of information, I solved some things myself. It was the only time that I needed a document at the DRCA that I sent an e-mail or went to get it. But DRI, no" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"When I arrived on the fourth floor, there (FAFICH) was there, in addition to the secretary, there was my advisor, that made it easy, it was the moment, the first personal contact with my advisor. Then they guided me correctly, I showed them the documents, and after handing over the documents, they instructed me to go to the International Relations Department to finish the process of handing over the papers, the scholarship business, and all that. This was the first contact" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"It was only after I got here that they gave me a document, which is very nice... but it was the Graduate Program Help Desk that gave me this document. That it was a document made by the DRI, where it was the reception of the foreigner where they said where to do the CN business... the card! How to get to Anchieta, then to the federal police. It's kind of more oriented after I was here, but not before" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"This is something I have to mention. I got the Godfather (Buddy) from UFMG from this International (...), And he was a student [...] at UFMG, at Letras University. Letras (...) And he helped me. Also with information, mostly about Brazil and how is life there. And what are the eating places I have to see, how expensive it is, different stuff. So, it was more about the... like living in Brazil (...), And this guy contacted me. And we talked a lot" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

## F.27 - Celpe-Bras- teste de proficiência em Português / Celpe-Bras- Portuguese proficiency test — interviews excerpts

"I am from a Portuguese-speaking country, and with the aggravation of having completed my undergraduate and master's degrees in Portugal, I could have waived this test, but I took this test. I went to do it under protest. It was a simple test, the certificate of proficiency in Portuguese for foreigners. This test had to be done within 2 years after entering Brazilian territory. So, I had to do it. I did it within this period, and I was approved" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"At that time, 2014, there was a change. The PEC-PG was not requesting CELPE-Bras to apply for the visa. They changed it because, I don't know if it was like that in other countries, but in the case of Cuba, it happened because there was no infrastructure in the Brazilian Consulate or Embassy to carry out the test there. So, the CNPQ that year in the Public Notice clarified that before finishing the Master's, within the 2 years, I had to take the CELPE-Bras and send the grade. The proof of being approved to them, which was sent by email. So, I did it, I think in the second year of the Master's, 2016. It was within the deadline before the defense" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"As I graduated here (in Brazil), I was PEC-G, and to be PEC-G, you must study the language. So, I arrived here in 2008 and learned the language (Portuguese) at the Faculty of Letters for a semester. I did my Celpe-Bras here before starting the course in 2009. So, I already had Celpe-Bras. And, when I was preparing for the PEC-PG, I didn't need to take the Celpe-Bras, because I already had my certificate. So, I just applied [...] You have to pass Celpe-Bras before starting classes. This is a prerequisite, right? If you don't pass, you don't start the undergraduate course" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"No, actually, it wasn't required. I only had to take the English test, which is asked for here at the UFMG Graduate Program course. I took Celpe-Bras later. I think it was last year, actually, 2018, because I saw that some Public Contests asked for proof of proficiency, and I did it. But so far, I have never needed to use this document" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

## F.28 - Burocracia e documentação na chegada / Bureaucracy and documentation upon arrival – interviews excerpts

"Then I had to open a bank account, so I had to have a declaration of residence. Then, I asked for Helper I, and she gave it to me. For the CPF, I had the help of my Godmother (DRI - Buddy), Helper 1.2, who took me to the Federal Police, and then we went to the Federal Revenue to do the CPF. It was also easy. As I arrived at the DRI and was told there was a sponsorship program, I applied. But I was still in Cape Verde, and when I arrived, I had 2 sponsors. I never saw the Godfather, and this Godmother was who helped me" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"There were a lot of documents. Actually, what I remember is that Brazil has a big bureaucracy, like a lot of documents that you need, and they're kind of difficult to get. Like, if you are new in that country, take some time to think, to discover the documents you need. To know how to complete them" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"We don't know how the bureaucracy works in each space, each place we arrive. And so, it's for people who sometimes don't have the university service, who are, who are readily dedicated to resolving these issues related to visas. So, we need support, and that is natural. And this support is given by colleagues who have been there for some time now [...] from all the documents we have to take out as soon as we get here, as well as what we have to do to open the bank account, both for the CPF, we didn't even know what the CPF was, we had to do it. Then someone has to guide you" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### F.29 - Renovação de visto periodicamente / Visa Periodical Renewal - interviews excerpts

"It was before entering the country. I applied in April 2015 and came in July. I have already filed for a study visa. No paid activity, only the scholarship. And it lasts for 1 year, renewable every year, subject to approval" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"It works like this, every year, we must renew the visa, and the Federal Police was having problems with the "foreigner national registration card" (RNE). Then they gave me a protocol valid until July. After they sent an email to my advisor asking for the documents again. I had to go to the Federal Police again. They always keep in touch with the advisor to find out how I'm evolving in the course" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"So, I always went to the Graduate Program Help Desk directly. So, I've always had a good relationship with the Help Desk. Because we, foreign students, always have to go to the Department, look for documents to go to the Federal Police, to renew the visa. So, we have to constantly ask for documents, proving our enrollment, proving that we were doing discipline, proving that we will be enrolled during time X and that we need to renew the visa. And so, it ends up that we end up creating ties with the people at the Help Desk. They already know the documents we are going to ask for. And then, we get closer. So, they always have... it turns out that we sometimes know the secretaries so well, because they already know about us, they know that we sometimes ask for more documents than Brazilian students themselves. So, it ends up being more, more natural" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### Category G - Belo Horizonte – interação / Belo Horizonte – interaction

#### G.30 - Busca por moradia em BH / Belo Horizonte housing search – interviews excerpts

"I got in touch with the DRI [...] I always sent emails to the same address, but sometimes different people responded [...] One gave information, the other didn't do so well. They had assured me that I had a vacancy, that I was on the waiting list. When I arrived in Belo Horizonte and got in touch with them, they told me that I had no right because I was from the PEC-PG, and they only gave housing to the PEC-G. Although later I learned that it depends, I had colleagues from the PEC-PG who were accommodated, so I didn't understand the criteria very well [...] But I managed it through a guide from the DRI. They have an international student guide. That's where I got the contact. It was a scheme that had some rooms

set up for students. I also arrived and stayed for 2 days in a hotel close to UFMG" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"[...] It was also complicated but compared to other foreign students. I was a little lucky, too, as my husband was here looking at various options in the Ouro Preto neighborhood, close to Av. Fleming and Pampulha Lake is a neighborhood that foreign students try to live in because it has good buildings and apartments and is close to the university. So, in this region, we were looking for several options, and we found them, but it was on our own as well. We didn't have options or help from someone else, and I think most students in other programs don't either. I think it's the foreigner's job to find a place to live. Because now there are more options, there are several apps, Airbnb, they give us more opportunities to arrive, rent, maybe 15 days, and then find a better option. I think it was more complicated before" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I arrived, then I went to the house of some Cape Verdeans. However, before coming here (to Brazil), I asked E4 to help me find a home to live in. Then, E4 had a friend who lived in Pampulha, in the Liberdade neighborhood, and he was going to the countryside to do an internship. So, the apartment was going to be free. Then, as soon as I arrived, I went to that apartment. However, later I had to move to the center, because the (medical) faculty is in the center, to avoid the transportation exhaustion, distance, and traffic" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"[...] I already knew where to stay, which house to live in [...] I did everything by myself" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"When I arrived, my wife had already looked for me in the "República<sup>12</sup>" near hers, she also lived in the republic, and I asked her to find me something nearby. So, I stayed for 3 months in the first "República." The environment didn't last long, so I looked for another one near UFMG. But it was easy, through social networks, Facebook" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"The laboratory [...] VerRLab, which I remember where I entered, is a well-organized laboratory in that sense. Very cool, the guys are really cool. Professors are very welcoming with foreigners [...] And I remember that when I arrived, I already had everything. I already had a place to live, they had already managed it, and they went there to meet me [...] at the airport. So, I wouldn't get lost [...] It was a 'república' [...] with one of the laboratory members" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"I would have expected to get some help from the university, like a dorm maybe [...] or I don't know, some indications about it. They forgot to mention about, about this stuff. Yeah, somehow it's weird because it should be their duty, also. Because I have to go to Brazil. I have to live there. But in my case, they [...] omitted it. It didn't talk. About housing, and that's a big concern for a student that has to go abroad. Because the place that defines your experience it's the place

\_\_\_

Group of university students who share the same housing (PRIBERAM, [2-00]).

you stay, actually. More than the place to study [...] So. I talked with this guy (Godfather 8 DRI – Buddy), and he looked around on Facebook groups and talked with friends and found a friend of his that could let me stay there. For a period of time (...) And Godfather 8 got me to the place I was staying. It was his friends' place" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"So, I got a house, [...] contacting [...] a friend [...] who had already lived with me in Ouro Preto, once. We shared a place during her master's degree, and she went to work in Belo Horizonte. When I told her that I had passed the Ph.D., she said that she wanted to move from the residence where she was staying and [...] if I didn't mind, we would look for a house together. And we would live again sharing the same place, and she took care of all the bureaucratic matter, because I couldn't have guarantors, it was her parents who served as guarantors, it was her parents who helped in this part (...) Brazilian (...) She is from Juiz de Fora and was working in Belo Horizonte as an environmental consultant [...] I shared a house with her and then she had to move [...] because of her work. Then I went to live with 2 other colleagues of mine, [...] Brazilians I also met in Ouro Preto, and they all studied at UFOP" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### G.31 - Atendimento Médico em BH / Medical Care in Belo Horizonte – interviews excerpts

"[...] Nothing urgent, just routine issues [...] No, I didn't use the SUS. I went to private doctors" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"So far, I've never been sick or at least had an illness. I haven't had it. However, the first time I tried to contact the SUS, [...] for an allergy to a detergent, I went to the health center, but the thing was very bureaucratic. I needed to make an appointment with the doctor afterward. I don't know a month, two months later, and then I gave up because I knew it was an allergy. I knew what I needed to take, and then I solved it myself. The receptionist [...] of the place told us, "For this business, you have to make an appointment." I said, "But for an allergy, do I need to schedule a month from now?", she said, 'You have to schedule it, or you're going to a UPA.' But imagine me being 'stuck' in a UPA because of an allergy since there are other people with more severe illnesses, problems. Then I came home not very happy because of this bureaucracy. This absurd thing of avoiding things from being made possible, the simplest things. Then I went back home, continued the treatment I had set up for myself. I already had experience with other allergies, and it worked. After that and before that, I never needed to go to a hospital, a health post" (E5, PEC-PG, male, 33, Cuba - Master's in Communication).

"In fact, here, I have the right to go to SUS. I was also entitled when I arrived. But when I went to get the visa, they asked for health insurance for one year, and I continued to take out this insurance. It was international insurance. I did it for three years, and then I left. I was treated for a year by SUS, and then I joined as a dependent of my wife's plan. But there was nothing associated with foreign status here at UFMG" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"I don't remember, but I think not. No [...] I would have recalled that (...) usually when we make the Erasmus mobilities, the country we go in is European and we have one insurance across Europe, you know? But in Brazil, this insurance was not covered because it's a different system. And I had to get one that is internationally covered" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"We don't have health insurance, it's very expensive for us. Because [...] to keep depending [...] on the money we have, the expenses we make are [...] well [...] I have to pay health insurance for these expenses with medication; we couldn't handle it. But then, the one who helped me was a girlfriend I had when her family came to pick me up at home and took me to the SUS [...] Through the SUS and they serve us well. I arrived, I was very well attended and received, and they treated me well, and I had been sick at home for almost a week, right? I got there in a matter of hours, I was already feeling better" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# G.32 - Interação desde a chegada em BH / Interaction since arrival in Belo Horizonte – interviews excerpts

"It was quiet. I liked the city a lot, the people are very kind. They gave information, sometimes they gave the wrong information, instead of helping, they complicated it more. In downtown, for example, I would ask someone where a street was, and they would explain it to me in one way, and I would go to the other side, but that's ok [...] I consider all my friends I made at the beginning [...] There is also a Cape Verdean community (Facebook). One member is already a professor at Dom Helder, a law professor. He has done a post-doctorate in this area of international relations and law. And when there is any activity in Cape Verde here in Belo Horizonte, he lets us know, and we go or eat liver with "jiló." Lately, we haven't gone because of the Ph.D. thesis. There's no time. There is also a girl who invited me to her graduation in medicine. She was already in her master's degree and came as PEC-G" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"It was a little tricky because the city is quite big. Back in Italy, I was used to smaller cities with cars and motorcycles; here, it was a little more complex. We lived here near UFMG, which is very far from the center. In the transport situation, I was a little bothered by security, taking the bus at night. So, in the beginning, the adaptation was a bit complicated" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"So, while I studied in Ouro Preto, we connected with students from my country and other African countries in Belo Horizonte. That's because so many people were received. Then I was also received by them in Ouro Preto, and they indicated why we had to constantly go to the Federal Police to renew the visa [...] And we didn't know Belo Horizonte that well. So, we were received by them, and we sometimes taught them which document had to go, so we created a great connection, and some were already studying at UFMG. But then, [...] those who studied at UFMG and each one studied in a different area [...] But there were 2 types of approximation: approximation from the academic side because there was close contact with the researchers, who dealt with material from my area, and

communication also from other African colleagues, who received us precisely to deal with bureaucracies related to visa renewals, Federal Police, in short (...) (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### G.33 - Lugares favoritos em BH / Favorite places in BH – interviews excerpts

"I really like Pampulha Lake, the interaction of people with nature, and the Mirante Mangabeiras. I went there several times" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"I like Hippie Market Place a lot; also, Pampulha lake. The bars, I like to sit at the bar with friends. I think BH is a big city, but at the same time, it's welcoming, you know? It doesn't feel like being in an immensity, surrounded by individualistic people who are only concerned with their own lives. Here it is pretty different in this sense" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I need to go to the faculty, so I always go downtown. And some tourist places that I sometimes visit, when I want a change of scenery, sometimes I go to Pampulha Lake or Pope Square [...] I really like the (natural) parks, sitting outdoors, thinking. Sometimes, when I leave class, and the traffic is weighty, I stay there in the Municipal Park, taking a little air. Then I pick up my motorcycle and leave [...] The Municipal Park or Pope Square, Pampulha Lake, UFMG also sometimes, because there are many green areas, near the Rectory. Sometimes I sit there" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"I'm a person who doesn't have idols or many favorite things, but I like Santa Tereza. I like that part of Liberdade Square because of the museums. I like downtown Belo Horizonte. We live close by. So, I walk a lot [...] I like Pampulha to walk around, but I think it's too far away. I like to stay close to downtown because it makes it much easier for me if I need to buy something. When I need to go to the bus station, museums are close, everything happens here downtown, Station Square is near, the subway [...] So my favorite places would be Santa Tereza, the Santa Tereza neighborhood itself, that Liberdade Square circuit, among others" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"Now I'm living closer to downtown. So, I really enjoy Liberdade Square, Maleta, that exciting region, the beautiful places in Lourdes, Pope Square too, to go for some walks. My favorite, I think, is Liberdade Square itself, one of the most beautiful spots in Belo Horizonte" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"[...] Any Latino, anyone outside Brazil, will look for places that resemble their country, got it? Remember their culture. So, in this sense, it's the entire Latin community, especially the guys, [...] Colombians, Peruvians, Chileans, it's usually [...] you know places [...] that are directed here in Belo Horizonte, for this kind of class, right? Even here in BH, there are several "pubs." In other words, bars, bars, you can put it that way, right? Some bars are aimed at Latinos, right? Now it's closed, of course, right? Because of this pandemic. But at that time, I remember there was the Mexican Pub, which is a place oriented to Mexican culture and to put Latin music there, everything, like, Brazilians had little there.

So, it was pretty common to find the entire Latin community there, you would visit the place, and there was another one called Paco Pigalle" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science)

"So, I have some. [...] I liked the Santa Teresa region a lot [...] Because I like music a lot. It's a place that has always had a lot of samba and I also really like musical instruments, I like that. It's a region where I've always seen the culture boiling. So, it was a place I really enjoyed going to. There was the ecological part, too, there at UFMG [...] Which is the ecological station. I really enjoyed going. It's a beautiful place. Pampulha, also the Pampulha region, liked to go for walks on the lakeside. But, I liked it better, the surroundings of Belo Horizonte. Since I'm a biologist and I've always done several fields, I'd much like to go to the regions of Cipó, Serra de Cipó, and Serra itself, and I'm a photographer, too. So, I loved going to and from nearby parks, [...] Itacolomi Park, Serra de Ouro Branco State Park, too. Serra do Cipó National Park and I also went a lot in Serra da Moeda, too. So, I went through these places a lot. They were my favorite places when I was in Belo Horizonte" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# G.34 - Atividades favoritas em BH / Favorite Activities in Belo Horizonte – interviews excerpts

"I like to walk a lot. I walk a lot here in Belo Horizonte. Sometimes I take the bike for a ride, movies, theater, these things that the center offers, we try to enjoy it a lot. Cinema, theater, carnival, when it's time for carnival and other cultural activities here. We often go" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"There is an excellent offer here in Belo Horizonte of free cultural activities. I really enjoy going to the theater there (Liberdade Square) at CCBB; at SESC, there are many free movie sessions, Cine Belas Artes, which always has an outstanding activity... That region has many options" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

# G.35 - Similaridades entre Brasil ou BH e cultura de origem / Similarities between Brazil or BH and culture of origin – interviews excerpts

"There's a lot of stuff, manioc, corn, 'feijoada.' I feel practically at home. Even talking about Portugal and Cape Verde is very similar in the food context. Portuguese food is very similar to Minas Gerais food, indigenous elements. 'Dobradinha,' many similar things' (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"Well, we have some things in common. I think our people in Latin America have some things in common: this desire to help people. I received a lot of help from people who don't even know me, and I'm grateful that they had given me this opportunity. This kind of help at the right time, and I don't know if there is a word in Portuguese, maybe solidarity. Because having this help in our peoples is very good, this mutual solidarity doesn't matter if we know each other or not. We don't know the turns that life takes, and it is always a value that we must always

maintain, and not lose humanity, even if they are not friends or Family" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"It is very similar in terms of ingredients to Cuban food. Rice, beans, meat, but the mixture of ingredients is different and very tasty here [...] I still haven't been able to eat the "tropeiro" bean, but I have the others, and I like self-services that have a variety of food from Minas Gerais. I don't remember the names of the dishes. I always try them and find them very tasty. The classic thing here is the way they make the grilled steaks with onions, the "picanha"...in my country, they don't have it" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"I think this manner of welcoming is in an informal way of being and being. Getting to know people and already inviting them for coffee or cake" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"Benin has a lot to do with Brazil, especially the Bahia region. I see some things here in cooking; sometimes, it won't be a hundred percent. But, as slavery was in Africa, some things have to do with it. Sometimes it changes a little bit. There are some foods [...] Okra, "angu" with okra. We do, just the same. But, a little different, sometimes we cut the okra and blend it to make a broth [...] In the Brazilian way, we do it too. But when a person wants to change the way [...] I'm remembering now, yes. But I know there are several, for example, the "tropeiro" bean. We even joke that it's the bricklayers' food to eat and get really strong (laughs)" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"Remembering the culture itself. I think, for example, food has certain proximity. Although we don't eat rice and beans every day, the daily food in Cuba is rice and beans, meat, salad, those things, then the culinary part. I also think the people, the culture, the people are very close, more supportive and I think it reminds me a lot of people from Cuba [...] There are several. Of course, that chicken with okra [...] Because okra comes from Africa. For example, okra and yam, these vegetables come from Africa, and the slaves took them to Cuba, brought them to Brazil, so there is a lot in common in cooking. And there, for example, chicken with okra, that banana chips also have a different name in Cuba. When you fry yams, you also find these foods in Cuba. So, the cuisine has very similar aspects, especially African contributions. It's very similar to Cuba. And rice is every day, the same as here. So, for example, vegetables, most are the same ones we consume there in Cuba, so most are very close" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"There are many similarities between what Italy is and what Brazil is. Here in Minas, there is primarily a family tradition, a family meeting, a Sunday lunch. This feeling is quite strong. The thing about food too, I think people from Minas are very attentive to the preparation, to the food ritual, there is also that in Italy. At least there was until a few years ago. These things change a lot" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"But, related to food, these things, it's very, very similar [...] But the cultural sense is very [...] different. Totally different" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

#### G.36 - Comida típica de Minas Gerais / Minas Gerais typical food – interviews excerpts

"Gosh! Of the places I've lived, I think the food from Minas is the most delicious. For example, the 'tropeiro'. I love the 'tropeiro'! I think that's fantastic! Cheeses [...]" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I like Minas Gerais food [...] Feijoada, I really like 'feijoada' I can't eat it very often because it's very strong, rich, but I like most of it. I don't know them all, but I like "feijoada," chicken with okra, 'dobradinha'" (E5, PEC-PG, male, 33, Cuba – Master's in Communication).

"I'm not really into it because I'm vegan, so most of the food isn't on my menu. I tried a lot of things, I found it a little heavy, 'tropeiro' bean, liver with 'jiló' very rich food'" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"The food was totally different, totally! Like Brazil has many, many dishes. And I tried all of them. I've never seen something like that. We have just some fruits like apples, maybe we have bananas because they are imported, oranges, also imported, but we don't have like in the shop, like ten fruits. And then, I discovered in Brazil that you have, wow! Tons of fruits. And the people were different" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

# G.37 - Interação com brasileiros em geral / Interaction with Brazilians in general – interviews excerpts

"I only met some Brazilians who were friends with university students, who were from outside the university, but they didn't become my friends. We just shared some time, some activity, a barbecue, but that's about it. So far, I have not developed relationships with people outside the academic environment" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"I'm dating a Brazilian guy. And he's not from UFMG. He's from Pará. But the relationships end up being that way, by the academic world. Mainly because when you do a Ph.D., you end up living in your bubble [...] But I know other people, too. I met through Facebook and also through an app called 'Happn' So, I have a lot of friends I met there" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I think it was good. People here are very receptive. People say that Minas Gerais is a little difficult to make friends with, I felt that too, but in general, people are very available daily. In Italy, you don't see this: an employee who helps you when you're doing the CPF, who is very friendly. I really liked this aspect" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"It was difficult. Because as I told you, I was not speaking Portuguese, or I was not speaking in a way that I could get all the information I was needing in Portuguese. And the other people were not talking in English. So, I was not able to make myself understood. It was... When I got into situations with someone [...] that was not speaking English, it was anxious because they wanted to help me, but they couldn't. It was very difficult to understand what I want [...] They were kind.

They were very kind. All the people" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

#### G.38 - Adaptação à cultura brasileira / Adaptation to Brazilian culture – interviews excerpts

"I had already come in 2016/2017 try to join the program. And initially, I didn't like the city. Because I was used to São Paulo because I lived there. And, Belo Horizonte seemed like a small city to me. I don't know [...] Maybe I "disliked" the city because I wasn't approved on PEC\_PG the first time. But now, currently, I really like living in BH [...] I started to get to know the people. I'm very spontaneous. I like meeting people, so it ended up happening naturally" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"Look, as I'm an outgoing person, I like to talk to people, to make new friends. So, it was easy during the undergraduate course; when classes started, I was the only man in the nutrition room (Graduate PEC-G – 2009), so the girls and I got along well, talked, and did little parties. We did work together. So, I met some people, their families. And when I came back from France, it was the same thing; some people in the research laboratory became my friends. So, it's like this [...] If they're not friends, at least we talk a lot" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"Yes, there it is more complex, [...] because Brazilian culture is very isolated. It's like an island. A cultural island. An island. In the same way that you are an island for the local, neighboring countries [...] So, the cultures [...] of South America, of the countries of South America, are very similar to the cultures of the countries of Latin America, Island America, America, the Caribbean. So, in that sense, we are very similar because we were colonized by Spain. So, there's a lot, mainly cultural, mainly music, the way of facing certain things, [...] Brazilians are very different from Latinos from Spanish-speaking people. So, for us, this was more complex. It was more complicated [...] because, as much as we tried to integrate, as much as we tried [...] to be part of the culture, [...] sometimes we couldn't. Because [...] everyone misses their roots, get it? No matter the country. You are Brazilian. You go to the United States. His culture is entirely different. You're Brazilian, you go to Europe, and you'll see that it's a distinct contrast. And this also happens in home countries, the people from abroad and come to Brazil. [...] it's a very rich culture, huh? But it is very typical of Brazil, of the Brazilian. In other words, you don't find it outside of Brazil. It is different from other Spanish speaking countries" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"It was [...] it was kind of a cultural shock for me to come to Brazil. Because it's [...] a very different culture, like the first thing that was different, it's the temperature. So, I don't know if this is related to culture, but it was a shock for me because I came from, I think like minus 20 degrees Celsius to 30. 30 degrees. That was a very hard shock for me [...] Summer in my country is winter at the same time. [...] And this is like half a year it's winter, and half a year it's summer, something like that. And then it was this time zone difference that affected me. Because in Brazil, I was six hours behind my country, and it took me some time to adapt to this. The food was totally different. Totally! Like Brazil has many, many dishes. And I tried all of them. I've never seen something like that [...], And the people were different. Also, I discovered that Brazilians are very touchy. They like

to touch you. We don't really do that. In my country, it's like it's our personal space, and when someone touches us [...] is like an aggressive way of talking, you know? [...] Even though I'm not very shy, let's say. But I still feel that like a threat, let's say. And, they're very kind. You know, I think they're the kindest persons I've met. Usually, what I see in my country is that everyone is going fast to arrive at some meetings or be on time somewhere, and when I go through the city, I'm in a crowded a big crowd, and the people push me through the city. This is how I called in Romania, and in Brazil, they actually go down slowly. [...] I was adapted to [...] this idea of going fast of being in time and in Brazil, I could just relax and take my time" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

## G.39 - Adaptação ao português brasileiro / Adaptation to Brazilian Portuguese — interviews excerpts

"Since I arrived, I started in the first subject I took here for my Ph.D., it is in Portuguese, so I had to learn by doing it. And also, the interaction, the day-to-day, was tricky because here in Minas, people speak a little more complicated. Even now, sometimes I have a little difficulty, but it was a continuous learning process. When I arrived, I already had a good foundation, I had started studying a little earlier, I came and was already able to communicate a lot" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"It was a little challenging to understand everything in Portuguese in the first subjects, what the Professors said, but then the ear adapted. It's wonderful how human beings adapt. In fact, I didn't speak anything in Portuguese. After 2, 3 months of class, I was able to understand what the teachers were saying. These days I have trouble understanding the Portuguese of people on the street, for example, people who work in bakeries, supermarkets, stores, because they don't speak the same way as Professors. So, I think I learned more formal and classic Portuguese with them" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"I had difficulty (communicating). And also difficulty in the subjects, because I used to write (before the spelling agreement), and the Professors corrected my Portuguese, which negatively influenced my grades. Because I write in Portuguese from Portugal. So, this marked me. In addition, at the beginning (PEC-G undergraduate course at eighteen), I found it strange that people did not understand what I said, despite speaking Portuguese (from Portugal), Brazilians did not understand" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"[...] I was able to understand most things from the beginning. Now, writing, in the beginning, was a bit difficult because I didn't master all the grammar rules, the conjugations, that sort of thing. But then I had the advisor's help because I would send the work to her, take a look, and help me correct my Portuguese. Then, over time, I learned and improved a lot [...] Today it's much easier. I think I can write today. I always send someone to take a look at the texts, but today it's much easier" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"[...] I remember that [...] at the time, I didn't understand anything. It started there, right? [...] I arrived here knowing nothing. So, without the basics. But I remember that [...] I was interacting with the boys like that, that Brazil has several different kinds of Portuguese. Depending on the region, Portuguese changes, slang changes, words change. So, in the context I was in, there in the laboratory, the guvs from Fortaleza spoke very differently from Minas. For example, the "Mineiro" spoke very differently from the guy from Piauí, for example. He spoke very differently from Paulista, very different from the guy from the Rio Grande do Sul [...] So, the learning was very rich. I learned Portuguese from three regions and three regions' slang, but not [...] I went to study, it was really in the experience, [...] direct contact, in the conversation I asked, I made a [...] agreement with them, every time I said something wrong, they corrected me. So, it was a test. It was not a course I took in Portuguese. None of that. Of course, later, I studied Portuguese to learn writing and grammar, very similar to Spanish. But [...] initially, I didn't take a course, no Portuguese course. It was nothing. It was like, how do you say this in Portuguese? It was intuition, really. It was selflearning" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"I was not speaking Portuguese, or I was not saying in a way to get all the information I needed in Portuguese. And the other people were not talking in English. So, I was not able to make myself understood [...] When I got into situations with someone, who was not speaking English, it was anxious, because they wanted to help me, but they couldn't. It was very difficult to understand what I wanted" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

## G.40 - Contato com outros estrangeiros ou compatriotas / Contact with other foreigners or compatriots – interviews excerpts

"The people from other countries that I met were here at the university. It was mainly in places that had music - salsa, Latin. Then we met, and they were all university students. Many Colombians who come to study here" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"Since it is according to each country, when the person wants to do PEC-G, it is either someone here or learned about it through a public notice there. But, when that person enters the embassy and wants to do the program, there are lists of people who participated in the PEC-G, with names, social networks, WhatsApp, etc. So, the person can join some groups, because there are groups separated for each country and contact the people already here. These people help to find a place to live, sometimes there are vacancies in the 'repúblicas' where they live, in short, they send all the information. As I'm from Benin, I'll talk about it there. For example, this year, when I was doing field research there, I went to the Embassy of Brazil, selected some new boys, and held a meeting with them. The Vice-Ambassador called me and said: 'Since you have been here for a long time, come talk to them, give some tips' So, there is this type of initiative in Benin, but I cannot talk about other countries. But, in Benin, someone living in Brazil goes on vacation to Benin; when there is a team, the embassy staff calls them to talk. So, they already have contacts throughout Brazil. For example, 'look, I know someone in Juiz de Fora, you're going there. I'll send you his number, his

Facebook, so you can get in touch' So, it's more diverse, easier for people who are arriving today" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"I think my girlfriend already knew some of these people (other foreigners) [...] At first, it was through her because there is a Cuban in Belo Horizonte; she was working there, doing a Ph.D. at UFMG. Then, she called me to have a party, to celebrate someone's birthday. So, I went there, and I met part of the group of people from Cuba studying at UFMG. But I was not aware of the existence of these people before I came" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"Here [...] there is an organized Cuban and Latin community, especially the Cuban one. It is more organized. Usually, at that time, they were welcome, [...] someone from the Cuban network would arrive, they found out he was Cuban, they located the new one and tried to bring a welcome party into the community. But it was more initiative from the Cuban community, right? [...] In fact, I had contact with these guys three months later [...] They didn't even know I was here in Brazil, and when they found out that there was someone, I was the first Cuban who joined, for example, the Science Department of Computing. I was the first Cuban who entered. When they found out that there was a Cuban in the Computer Science department, [...] they ran after him. They looked for who the guy was. They looked for me. They found me, and they brought me into the Cuban Community" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"It is a network, [...] a connection of information that comes naturally. But when the university enters, in this case, as was the case with Mr. Adilson (UFOP-Graduation-PEC-G), this increases its potential. Because it makes something more official, more responsible [...] These networks, I think many people are looking for them. So, I guess what happened the most was on the internet, you know? On the internet, they go looking; there's one who knows another person, there's one who knows someone else, so they keep asking. Those who had already studied there, for example, in Cape Verde, before I went to Brazil, I met a person who referred me to the person who would receive me in Viçosa; I said that I was going to study in Brazil. So, the person told me, 'look, I know someone in Viçosa' And coincidentally, I knew the person too, so that was easier, right? But in my case, it was like this: contacts there in Cape Verde referred me to people they knew here, from former students who came [...] They said: 'look, I know this person and that person and that place' Then, they recommended them to me. We got in touch, and they were willing to receive me. So, every place we go to, there is someone who knows someone else and recommends someone else" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

### G.41 - Locomoção dentro e fora do Campus / Getting around on and off-campus – interviews excerpts

"The first time was minimal contact because it was a very short time, a month, the movement was fundamentally by car. People looked for me, looked for me, and took me to places by car. I didn't have much sense of the city's spatiality. Then when I arrived, at the very beginning, I had difficulty memorizing the buses that took me to UFMG [...] Another thing, Belo Horizonte is not a very big city like São Paulo, like Rio. Then, I managed to adapt quickly because it is smaller. The

area of Belo Horizonte is even smaller than Havana, for example. So it wasn't very complicated to go, little by little, getting to know the neighborhoods, the buses I needed to take" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"It was a little tricky because the city is quite extensive. I was used to smaller towns in Italy, with cars and motorcycles; it was a little more complex here. We lived here near UFMG, which is very far from the center. In the transport situation, I was a little bothered by the fact of safety, taking the bus at night, so in the beginning, it was a bit complicated to adapt" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"A lot of people, circulating, I've already talked a little about transport, transport logistics, that I had to keep taking a bus here, taking another one there, discovering each one, the rush hours, that I had to concentrate and know the best times to take the bus and class schedules, too [...] It's too tense, losing 40', 50' minutes by bus, round trip. Sometimes, you make the average if you lose almost 2 hours a day just making the journey, right? There are times when you have to stay at the university for longer, because of some experiment or one's own... or because of the speed itself, that Graduate Studies require, depending on your project, you must dedicate, sometimes you have to stay late and sometimes you're afraid to take the bus, right? Because there is a schedule that some buses leave... they stop passing by" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### Category H - UFMG - interação / UFMG - interaction - interviews excerpts

## H.42 - Interação com estudantes brasileiros da UFMG / Interaction with Brazilian students at UFMG – interviews excerpts

"Look, my best friend here is Brazilian. We are always together! She is from my Ph.D. class, we are from the same research group, we have practically the same advisors. For me, it was peaceful. I like to live with Brazilians. I like to be in this environment, and, with the African community's people, we are always meeting. And, when we meet, I always take my Brazilian friends" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I had a lot of support, as soon as I arrived, they saw that I was a foreigner, so they came and asked if I had any difficulties. But after that, each one goes to their own lives. With some, I lost contact after I finished the subjects. It's comprehensive, but you're more alone even after completing the disciplines. So, you have to find ways to interact with the people at your house or call a friend you made at the beginning to have a beer and meet" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I think it was really good. I only took two subjects here for the doctorate, but it was good, the staff helped me a lot [...] I took advantage of it and took only two, actually three subjects. But they put up with me [speaking of giving support] a lot, I found a good reception here in the department's environment" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Yeah... but an interesting thing, like that. So, but they are not 'Mineiros'. I have 7 friends. True friends. Brazilian friends, [...] but not from Minas. So, you get the idea. I don't know because, by the context, you know? [...] We have had this debate before. Even locally among us, it's because [...] they are people I met in the Graduate Program, who were with me in the program. But unlike others, other students from Minas Gerais, who were local, are like that. They are receptive, they are cool, the guys are cool. But the 'Mineiro' has a problem, that he/she is very "doesn't trust people easily." Understood? It's a guy who [...] welcomes you, but he's not a guy who opens up. So, with the 'Mineiro' it was difficult [...] of course, I didn't have a fight, I didn't have any kind of discomfort, I didn't have any problems. But it was a more professional thing. It never went from professional to friendship, got it? Not with the other guys. With the other guys, it was different. Maybe because of the context, because they were isolated here, they were practically foreigners in Belo Horizonte, and people from another part of Brazil [...] Yeah... but an interesting thing, like that. So, they are not 'Mineiros.' I have 7 friends. True friends. Brazilian friends [...] but not 'Mineiros'. So, you get the idea. I don't know because, by the context, you know?" (E7, OP, male, 35, Cuba - Ph.D. in Computer Science).

"And then with the students. Well, I was not talking and thinking how it's gonna be with my classmates. I never thought of that. But they were very awesome, actually. [...] They helped me a lot. Like you are one of the classmates that helped me a lot. Waiting for Infos, we had to make projects together and, there were some books I had to translate from Portuguese to English, to trade and they were helping me keep it up (...) They were very curious about my country" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"This contact with the people at UFMG was very mild. It was smooth [...] But in terms of personal connection, in terms of exchange, it was natural. Because there were even people who didn't even know I was a foreigner, they only found out later" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

### H.43 - Interação com os Professores brasileiros / Interaction with Brazilian Professors - interviews excerpts

"I've always had a good relationship with the teachers, always with respect. Even through this good relationship, I was suggested by my advisor. The people at the academy are very helpful and supportive. As a general rule, yes. Some do not respond, are rude. But in general, they are polite, someday respond, and are polite" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"My relationship with the teachers was very good. I never had a problem with any teacher. I took different subjects from professors with different approaches, and I really enjoyed this experience with professors. And these days, I have a good relationship with some, who I know that if I ask for a letter of recommendation, they will do it for me. But I like to maintain this formal communication, student-teacher, and have a good relationship, even though the years pass, with those people who contributed to your education as a student" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"It was good, it was a good, very friendly contact." (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"So, at the beginning, I remember that Beatriz took me to most of the teachers, talked with them, and get to know them because they had to keep classes in English, and we had to synchronize this. Also, there was this thing that I was leaving before ending the semester, and I had to agree with them that it's fine. Ok. So, I met them. They were very awesome. Like in my country, the teachers... we have this hierarchy of authority, you know? When we talk with a teacher, we have to use Mr. and Mrs. We are talking very officially. It's like you're talking with them, with the police or with an official, you know? You have to respect them a lot. And what I saw in Brazil was that the teachers were very kind, very friendly. They were making jokes. They were making us feel that we are equal, you know? that was very different idea that I discovered in Brazil [...] And they had this approach of solving everything. Ok, so there is this problem. Ok, let's find a solution. It's no problem. I will give you the materials. I help you with that. We can find a solution. That was the main idea of the communication..." (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

"My contact with UFMG came with some professors that I met in congresses, that I met in courses, that I met in field courses, that went to give lectures in Ouro Preto and in other places, and professors that I read the articles in my area. So, it turned out that we kept in touch with it like that [...] This contact with the people at UFMG was very mild. It was pleasant. I already knew some of these professors, talked to them at conferences, and already knew some method of work of each one. But it was more relaxed, but you... I don't know if it was because of the level, which is a doctorate, which is a doctorate, you sometimes feel a heavier demand, right? UFMG, for example, required tests, and other programs didn't need it. So, you had to devote more time to the disciplines" (E9, OP, male, 37, Cape Verde-Ecology, Conservation, and Wildlife Management).

#### H.44 - Contato com colegas de sala / Contact with classmates – interviews excerpts

"For me, it was a great experience. I received a good reception from the students in the classroom, and everyone was very patient with my Portuguese. I didn't know anything when I arrived. They were very supportive. We shared several moments, helped each other with the dissertations, the projects. For me, it was a wonderful experience" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"Mostly what I found in university is that the people talk in English. Most of the people, not 100%. But I would say 80% of the people speak in English. And that's awesome Because, when I was going to the University, I was always able to find someone that was talking in English and if I had a problem, I was... solving it very fast, you know? Because I was getting the information I needed. And it is the same with the classmates they were talking in English. And we had to be great communication" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

"Then, when sometimes during class we talked about an example, that I said I was from Cape Verde, some people didn't even know where that was, either, right? But that was it. It was natural, it was good, better than the first contacts (PEC-G

- undergraduate course), right? That I used to speak Portuguese from Portugal. So, any participation in the class was a matter of everyone keeping quiet to hear the accent, and it was cool" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# H.45 - Contato com funcionários da UFMG / Contact with UFMG employees – interviews excerpts

"I have always been treated very well, whether for the PPGCI, then I changed programs following my advisor. But I always had a good relationship with them. List an aspect in the cafeteria of saying good morning to the person 3 times and they did not respond, in the cafeteria of Letters" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"It was mellow, on the Pampulha campus mainly. Because at DRCA, they are already used to receiving foreign students, they already have experience with this. It's busier at the Medical School, I spend more time in classes or in the research group, but it's also mild. Everyone knows that I am a foreigner, and they are surprised that I speak Portuguese clearly and that everyone can understand me" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"Well, the contact was nice! Excellent! Since I have arrived here, the staff from the Course Board, from the Graduate Program Help Desk, had always assisted me well when I needed something. I go there, talk to them or call. It is the same scheme about the undergraduate course as well" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

### H.46 - Contato com os funcionários do departamento / Contact with department employees – interviews excerpts

"So far, I only have good experiences. So far, I haven't had any problems with any library employees or any department at the university. I've always had a good reception, and they helped as much as possible" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"It was good, especially with the Help Desk staff, who are the ones we talk to the most. With the employees, it was cordially, no problem at all. The secretaries are very helpful. They explained things, you send them an email, and they respond, or you call" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

### H.47 - Contato com outros estudantes do PEC / Contact with other PEC students – interviews excerpts

"Many students contacted me from Brazil, a Chinese, Peruvian, Colombian. I am part of the PEC-PG scholarship holders' Facebook group, so they passed on the information. Then I find out" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I didn't know any of the PEC-PG at UFMG, but another student at UFRJ arrived with me. She's also Cuban. We keep in touch, but she left her Master's for personal reasons (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"Once again, it was through E4. After we met and exchanged emails and messages via Facebook, we created a friendship connection [...] But, it goes on, because he already lives here, he knows the places, he tells me where you have things to buy. I think up to today, he has supported me. Now it's reciprocal too. When he needs me, I always help" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"So specifically, from the PEC-PG, I don't know anyone else. There are others who came through other programs [...] For example, some people worked at college and managed to travel to Brazil because of agreements between the colleges. I think I was one of the few people I can remember who managed, at least at UFMG, at least in Communication, to apply the PEC-PG directly. The rest of the people I know were already here, and they entered the selection process like the Brazilians and others. Because of their institutional link in Cuba, they exchanged more directly. In other words, the link with the Brazilian program made things easier" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

### H.48 - Explorando o Campus da UFMG / Exploring UFMG Campus – interviews excerpts

"I used to go to the Student's Restaurant a lot at that time when I had to be in the classroom all day. I had lunch there and had some snacks in the cafeteria. I also visited other places in the Service Square, I also visited the economics faculty cafeteria, and sometimes I went to self-services in the Ouro Preto neighborhood to taste the typical food of the region" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"It's pleasant. The Faculty (Medicine) is not very big, everything is close, very accessible" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"The campus (Pampulha) I found very interesting because we are not used to having a campus in Italy. We have the various schools spread across the city, each with its own building, and here I found the idea of the campus interesting, of having more collective activities, events in the service square, the summer and winter festivals. When I lived near here, I used to enjoy my experience on campus a little more" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

# H.49 - Interação com colegas do Lab ou grupo de pesquisa / Interaction with Lab colleagues or research group – interviews excerpts

"For some people, it was indifferent. But on the other hand, I was very well received by my research group. I was always very welcome. I feel part of everything. So, I would say it is satisfactory" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"It was good. We have a laboratory where we do our research. It was excellent because there were always a lot of people. From the beginning, we organized parties, meetings, it was good" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"The laboratory [...] VeRLab, which I remember where I entered, is a well-organized laboratory in that sense. Very cool, the guys are really cool. Professors, for foreigners, are very welcoming, [...] As VerRLab is a very complex area [...] Robotics [...] is not trivial, and the laboratory has excellent conditions [...] due to this it is a selective process [...] in Brazil [...] when I joined at the time, there were people from Manaus, [...] The Rio Grande do Sul, [...] Teresina, [...] Fortaleza, [...] São Paulo. "Mineiros", of course. In other words, it was very heterogeneous, and I remember that the first contacts with colleagues were with those who knew Spanish. Mainly, with the guys that used to be from the Rio Grande do Sul, [...] it seems that there's a listening connection there with Spanish, that sort of thing. And also, there were foreigners at the time in the laboratory that, due to the language, it was easier to talk to them" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

#### H.50 - Assistindo aulas / Attending classes – interviews excerpts

"So, I remember that [...] There were some classes at the Sociology. I think that was the first class I took. It was Urban Sociology [...], something like that, and I was not understanding a thing [...]. The other class was in Portuguese. The professor was talking a lot. I was not able to [...] get it. But after the [...] course I was going to the teacher, I was asking him stuff, and I was getting information also. And the Communication faculty, it was easier, because [...] I knew the [...] subject I was studying there. It was very related to the subject I had before. And somehow, I could make connections with the concept, you know? So, I was keeping it up and at the Knowledge and Management, at this faculty. Well, [...] I had classes that were full in English. I don't remember the name of the teacher" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

#### Category I - Bolsas Capes-CNPQ / Capes-CNPQ Scholarships

# I.53 - Relatório semestral da Capes or CNPQ / Capes or CNPQ semi-annual report – interviews excerpts

"I report on academic performance, how it interacts with the academy, and I also had to send proof of visa renewal. It's smooth. You send the documents via a specific online communication channel with Capes, direct line. And you just upload the documents, they give you a visa, and that's it, the scholarship is renewed. I just had a problem with the scholarship; as I changed the program, they migrated me, and I was PPGCI. I went to PPGOG, so I didn't receive the scholarship for 2 months, and I had communication problems. They canceled the scholarship but did not go to PPGOG, then there was a problem, but it was overcome" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I participated in ENANCIB, and it was financed with the budget given by the program (PPGCI). I had to report this to CNPQ. They needed me to do a report every year. In fact, after the first year of the Master's, with several points and questions, above all, from what I had developed during the year. And I also had to do one in the second year, and then I had to include that I participated in the congress, which was a requirement to defend the Master's degree" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

# I.55 - Comunicação com a Capes ou CNPQ / Communication with Capes or CNPQ – interviews excerpts

"Yes, an annual report. I do the report on academic performance, how it interacts with the academy, and I also had to send proof of visa renewal. It's smooth. You send the documents via a specific online communication channel with Capes, direct line. Moreover, you just upload the documents, they give you a visa, and that's it; the scholarship is renewed" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

### I.56 - Processo de concessão de bolsa - após aprovação da Pós-Grad / Scholarship granting process - after Graduate Program approval – interviews excerpts

"It was very brief; they simply took the information. I filled out some documents they needed to send to CNPq to implement the grant. However, the link to the funding agency wasn't with the program. It was the DRI because of the type of exchange I was going to do. Nevertheless, it was too brief, not much conversation. It was a procedure already established by them. It was just filling in the documents, delivering others, and that's it" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

#### Category J - Fontes de informação / Information sources

#### **J.58 - Telefone / Telephone – interviews excerpts**

"I was in France, so I wrote everything, the project in Portuguese. I sent an acceptance letter, which I asked the Professors. So, I kept in touch, sent e-mails, called the professors to talk to them directly [...] Sometimes I called the Graduate Program secretaries, who gave me information, how to pay the enrollment, for example. If I wasn't in Brazil if I would have to find someone to pay for the Graduate Program application fee, international transfer, all that. I spoke directly with the coordinator" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"It was good, especially with the Graduate Program Help Desk staff, who are the ones we talk to the most. With the employees, it was cordially, no problem at all. The secretaries are very helpful. They explained things, you send them an email, and they respond, or you call" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"At the time, I had the secretary here in the Graduate Course, Inês, who has retired, and she guided me through all the procedures. When I was still in Italy, I even called her to receive the documentation to apply for a student visa at the Brazilian consulate in Italy. It was an excellent follow-up, I think, from the department staff" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

#### J.59 - E-mail / Email – interviews excerpts

"It was good, especially with the Graduate Program Help Desk staff, who are the ones we talk to the most. With the employees, it was cordially, no problem at all. The secretaries are very helpful. They explained things, you send them an email, and they respond, or you call" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

#### J.60 - Redes Sociais populares / Popular social networks – interviews excerpts

"That's how a Brazilian friend I met in Guimarães posted on Facebook. That's when I had my first contact with the PEC Public Tender" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"A shock, for example [...] about people, was the intensive use of social networks. Students formed groups at the time. There was no WhatsApp yet, but they did groups on Facebook, and email was less used. Then I found out about class changes and room changes only when I arrived at the place and found the door closed, and then I looked for someone to explain it to me. And they said, "No, it's just that we commented on the Facebook group that the classroom had been changed." But sometimes, I noticed that within this group, I was lost. These things fundamentally. The rest was not too complicated to adapt to" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"I had also made a direct application process. I did the Skype interview. I took the tests online [...] UFRJ, UNICAMP, at the University of Pelotas, at PEC-PG, here at UFMG. So, I already got in touch with the coordinator and got the acceptance letter and recommended a professor to be my advisor" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"I don't use WhatsApp for security reasons. The ones I kept are primarily on Facebook, even for family reasons. Otherwise, I would also turn it off. So, the contact is through Facebook, the only source. I don't know if there is a group on WhatsApp because I haven't used it for over a year" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"For example, this year, when I was doing field research there, I went to the Embassy of Brazil, selected some new boys, and held a meeting with them. The Vice-Ambassador called me and said: "since you have been here for a long time, come talk to them, give some tips." So, there is this type of initiative in Benin, but I cannot talk about other countries. But, in Benin, every year, someone living in Brazil that goes on vacation to Benin; when there is a team, the embassy staff calls them to talk. Then, they already have contacts throughout Brazil. For example, "look, I know someone in Juiz de Fora, you're going there, I'll send you

his/her number, his Facebook, so you can get in touch." So, it's more diversified and easier for arriving people [...] What some boys told me, Brazil is federative, so some states have this group. So, people are already joining the groups to connect today" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"Facebook helps, but not that much. More personal contact. For example, you were invited to a party, then a new person from Cuba shows up, and we keep in touch, then there are other activities, and the circle gets more expansive, it gets wider. [...] For example [...] there was that Bar Latino. The Bar Latino was a good place because people gather there, and you not only meet people from Cuba, but people from other Latin American countries show up" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"So, I talked with this guy (Godfather 8-DRI Buddy), and he looked around on Facebook groups, and he talked with friends, and he found a friend of his that could let me stay there. For some time" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

#### J.62 - Messenger ou WhatsApp / Messenger or WhatsApp – interviews excerpts

"We (About Cape Verdeans who live in the region of BH) have a Facebook group called "People BH," formed by Cape Verdeans from PEC-PG and PEC-G, and we also have a group of "WhatsApp" [...] There are different types of groups. There is a group of people from Cape Verde, and other groups with people from Mozambique, Angola, from other (African) countries, which we also live with a lot. It has larger and smaller groups. We always meet! [...] But I know other people, too. I met through Facebook and also through an app called "Happn." So, I have a lot of friends and friends I met there. In Cape Verde, there is no such thing as an app... So, I downloaded it to meet people who have become great friends today" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public health).

"Through the applications, they send messages for specific things, and when we have a birthday or have some activity related to music linked to Cuban culture, these people show up [...] WhatsApp, Messenger, or the phone itself. Sometimes people need some information, or they need to know if someone is going to Cuba or coming to Brazil, and then people call me; I call people" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"So. Firstly, I was looking for Mrs. Beatriz. And she was responding very fast, like on WhatsApp or email, sometimes. And She was explaining to me all the process I have to go through. All the documents I was needing, all the information, where I can find it" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

### J.63 - Pessoalmente / In-person – interviews excerpts

"[...] All foreigners must go to the Federal Police when they arrive in Brazil, and in the case of students, we have to take a lot of documents. I had all these documents because I had to present them at the Brazilian Consulate in Havana. However, I had to go to the Federal Police when I arrived. I had to do the CPF

at the Federal Revenue. In all these places, I went alone, through the university, only with my husband, who had already carried out this process and who accompanied me" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

#### J.64 - Site da UFMG / UFMG website – interviews excerpts

"Well, I'm curious, so I went to the UFMG website. I went to see if there was any support service for international students, and I saw there was the DRI. I contacted the DRI" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

### J.65 - Site do departamento ou Pós-Graduação / Department website or Graduate Program – interviews excerpts

"The program's website didn't have much information. It wasn't that detailed. So, the contact was more direct with the coordinator [...] in English" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Fortunately, the DCC Program seems to me to be one of the most transparent programs at UFMG. By entering their website, you can find all the information you need; without contacting them by phone, everything is there: questions, prerequisites, documentation, forms. It's all online [...] the information [...] we need to join the Graduate Program. It's all [...] on the Graduate Program's website. [...] everything is evident there, and the Graduate Program Help Desk system too. The system is excellent. It works perfectly. So, sending documents and the process went very smoothly [...] Well, it all started via the website, via e-mail. That is after I was accepted [...] I began to communicate directly with the DCC Secretariat" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

# J.66 - Pessoa como referência de informação / Person as information reference — interviews excerpts

"Through my brother (how he met other Cape Verdeans in Belo Horizonte). He had already studied here, he gave me their contact, and I spoke with them. Furthermore, while passing through UFMG, I heard someone speaking our mother tongue Creole. Then I started talking to people by listening to my language. That's how I met some" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I saw his name on the PEC-PG approval list. So, I looked up his name on Facebook, then texted him (E3's first contact with E4) [...] After meeting and exchanging emails and messages via Facebook, we created a friendship connection. Arriving here, he received me, who took me to the DRCA to enroll. And, as we are from the same Ph.D. program, we ended up getting very close [...] I arrived, then I went to the house of some Cape Verdeans. However, before coming here (to Brazil), I asked E4 to help me find a place to live." (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"I had no follow-up. I managed it myself. I printed and read everything to see how to apply. I didn't understand some things that I called Brazil to clarify [...] I had already studied here before" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"I already knew Belo Horizonte because I was here in 2012 on that cultural exchange. I already had an idea of mobility within the city [...] I arrived here. I already had a relationship with Person 5, she was living in a house, and I went to live with her. There wasn't that process of starting to look for housing, rent. In fact, I've never lived in a 'república'" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"In fact, I had heard about UFMG in general because of my wife. Because she also studied here. Furthermore, during my undergraduate and master's degrees, I never heard of the university. In general, from the researches I studied, none were related here with Brazil, with Brazilian institutions" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"At the time, I had the secretary here in the Graduate Program, Inês, who has retired, and she guided me through all the procedures. [...] When I arrived, my wife had already looked for me (a place to live) in the house near hers, she also lived in the house, and I asked her to get me something nearby [...]" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Communication started in English because she (DCC Secretary) did not know Spanish. And he (Argentinian Professor from DCC with Cuban wife and children) knew what I was talking about. He knew, so he went as an interpreter on the Brazilian side for the process. But yes, for the visa process, all the documentation I needed was via email. The DCC gave me everything I needed: the letter of acceptance, the documents I had to present, there, at the Brazilian embassy in Cuba [...] the DCC is well organized in this regard (on arrival at UFMG). They knew I didn't know anything. I was lost. I couldn't even dominate the language. And they looked for a crowd, who guided me. They took a student; I remember he was a master's student from Colombia, who already knew how the process is, from the whole process abroad. And he was the one who [...] guided me. You will have to come here [...] you need this document. That is, they looked for people with experience. Usually like this, they look for people who are students of the program [...] they already know what the experience is like, who have been through it and put them as a 'manager' for the guy, when he or she arrives [...] They are things made like the department's initiative [...] It is not something organized from outside" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"She (Mrs. Beartiz) was very significant. She helped me anytime, with everything I needed. So, she was actually giving me advice and giving me information, that I maybe I was struggling, just searching around for it [...] I got the buddy (Godfather 8) from UFMG from this International (DRI) [...], And he was a student [...] at UFMG [...] Letras [...] he helped me also with information, mainly about Brazil and how is life there and what are the eating places I have to see, how expensive is, different stuff. So, it was more about [...] living in Brazil [...] Godfather 8 got me to where I was staying. It was his friends' place" (E8, OP, male, 24, Romania – Master's in Knowledge Management and Organization).

"[...] When you arrive in a different country, I think that, at least for me, in my experience, there is a great tendency for agglutination, right? [...] We do not know how the bureaucracy of each space works, each place we arrive at. And so it's for people who sometimes don't have the university service [...] who are readily dedicated to resolving these issues related to visas. So, we need support, and that is natural [...] Then someone has to guide you. So, all this was helped by African colleagues who had been here longer." (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

# J.67 - Secretaria do Programa de Pós-Graduação / Graduate Program Help Desk — interviews excerpts

"So, I got in touch with the Graduate Program Help Desk that their email is available on the website. First, I tried it here, then I got an answer from secretary Nely" (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"Since I arrived here, the staff from the Board Course, from the Graduate Program Help Desk, had consistently assisted me well when I needed something" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"They called (Brazilian Consulate in Cuba - visa process) to the Graduate Program Help Desk, they called my advisor [...] They wanted to check documents they did not have access to [...] But in my case, I was not in any public notice of these (Capes/CNPQ). Then, it was more local, and they wanted to check with the faculty, the department" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"So, I always went to the Graduate Program Help Desk directly. So, I've always had a good relationship with them. Because we are foreign students, we always have to go to the Department, look for documents to go to the Federal Police, to renew the visa" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

### J.68 - Plataforma de localização geográfica / Geographic location platform - interviews excerpts

"People first, I asked people. And then the internet, Google Maps to know the route I needed to take to get to places, and there was also that tourist guide from Belo Horizonte at the time. There was a little map, it helped a lot. I used that map a lot to find my location in the places" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

#### Category K - Opinião / Opinion

#### K.69 - Comentário adicional / Additional comment

"Just reiterate that the PEC-PG Public Tender is very accurate. And in addition to the Public Tender, there is a person at the embassy, Olga, who has a lot of experience with international exchanges. She is very didactic. She explains with great patience the step-by-step of all these processes [...] Through her, the

ambassador delivered a letter for you. So, you go to the company and the airline to buy a student ticket with a discount. So, they have there, or they had, a structure that helps a lot. I remember that Olga even recommended several Portuguese teachers in Havana. She had the contacts of several, she gave the telephone number, the email of these teachers to the candidates to look for them" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"I was privileged in the sense that I entered a Department, a Graduate Program in which it is well structured. It is already used to welcoming foreigners, and, consequently, they have many initiatives to try to integrate the foreigner into the department [...] When I compare myself with other boys from other departments, from other programs, friends of mine, whether from the Information Science area, Chemistry area, or Humanities area, I don't know, physics and there's several here, from other areas. And we talk about the processes, the documentation, the flow of information since you arrive until you are integrated into the department. So, DCC is way above [...] the Department of Computer Science [...] I don't know how they achieved so much development, in this sense, but they are well [...] organized. Everything is self-explanatory, the flow is very clear, welcome, and their initiatives with foreigners are excellent. So, in that sense, I have no complaints. In this sense, perhaps other students from another program have more difficulty. But in my case, it was [...] too cool too" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"I cannot wait to come back to Brazil [...] I don't know when that would happen [...]. I'm working right now. I have a job, and it's kind of difficult [...] To leave" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

"My country speaks Portuguese [...] from Portugal, and I already came up with a more or less [...] idea of space. But then, when I arrived, no, I didn't arrive directly (Graduation – UFOP – PEC-G). I think this was a great advantage [...] It was a bad thing [...] Because the university was on strike. It was a season that the university went on strike, almost 6 months. I was eager to start studying. But this time that I was waiting to start was already an interesting time, which gave me a lot of integration, getting to know other people from Brazil, and understanding how some things worked, and when it started, I was already a little integrated. Even if it was in 6 months, I could get a little more of the spatial perception of people and feel the impact, not being so direct, in the first days, right? So that was important to me" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### K.70 - Maior desafio / The biggest challenge

"I had no difficulty. I always managed to dribble and overcome any problem. I always try to anticipate, so I don't have any problems. I organize myself before [...] It was very smooth in Portugal and in Brazil. It was very positive. I never had a problem in Portugal or here in Brazil. I felt it in supermarkets when I go shopping; I'm always well dressed, so I don't catch more attention from my melanin and accent, so I go in, and someone stays behind. This happened several times in supermarkets. I think this is outdated [...] I never felt (about prejudice within the university) because I know how to get there and how to be, as I told

you. And if there was anything, I never noticed it directly to me. It's more in the environment here. People are more used to foreigners, so it's much more peaceful inside the university [...] The situations I mentioned about supermarkets are nothing to me. For me, they are outdated. I had no major problem. Like I told you, you must know how to be, each country has its rules, and you don't have a problem. Here they say that there are many problems with violence, but you just have to know how to walk in the city and ask people where it is more dangerous to walk there at night. And when I know it's not safe, I don't pass. And even in the United States, when you see that they throw shoes into the electrical current, you know that they deal with drugs there, this is a code I already know" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I heard from other foreigners who have also lived here for many years. In the specific case of BH, MG, it is a more closed region to receive foreigners. I knew that. They say that Rio de Janeiro and São Paulo are more used in their daily lives to have relationships and live with foreigners. However, here in the case of BH, as it is a city with recent tourism, they do not have this experience, and perhaps they are not so open here in town for foreigners. I knew about this characteristic because I even developed friendships with Brazilians who studied here at the university. But from other country regions such as Porto Alegre, Fortaleza, Espírito Santo, which was a little curious as they were a little more open than the 'Mineiros' themselves. Here, it can be one of the consequences because I have no [...] closer relationships with 'Mineiros' or people outside the university. But that's also it, this inclusion in society here in the city, I don't know if it happens with other towns in Minas, but maybe this social inclusion could be a challenge" (E2, PEC-PG, female, 35, Cuba – Master's in Information Science).

"With data analysis. Because I took a data analysis program that I didn't know about. I'm using data from the PNS (National Health Survey) here in Brazil. And the bank is very complex. Furthermore, regarding the configuration, as Brazil is a federative republic, with states, cities, etc. everything is very complex, which made my understanding difficult. It was hard to understand all this. This was the most stressful time. On the other hand, the issue of homesickness, of being away from home. And also, the issue of thinking, 'Oh, did I do the right thing, of having dropped everything and come to do my Ph.D.?'. [...] I think that is what catches me the most (the challenges regarding the thesis) [...] Not only in writing but also in speaking. There are some expressions that I don't understand, and some words that I say, and people don't understand either" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"One of the things we have to be very tolerant of is flexibility. I think the 'Mineiros' not to generalize because Brazil is a vast country, they have... For example, it's respect for the time. For some things, they are more flexible. And people in this sense are more closed. I think I needed, for example, to adapt to these things, to people who canceled a meeting, an appointment when you were already in place waiting for that person, you didn't do a lot of things to wait for that person. And some things like that related to a more informal character that people have here. I think it's been the big challenge, because at least [...] I think the culture in Cuba and the people I interacted with within Cuba when we say that we will meet at one time. It is at this time, right? It is infrequent for you to cancel an appointment. I think that's it with Brazilian culture, but it depends a lot on the

context. At university, I didn't have big problems [...]" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"In the interaction with people on the street, the bus driver, the cashier at the supermarket, the neighborhood, at first, it was a little more complicated because 'Mineiro' likes to talk a lot. And in this conversation, they ask a lot of personal questions, and we in Cuba talk, but we don't ask a lot of personal questions. "Oh, you got married? How many kids do you have?". We were educated not to ask for personal, more intimate things. Here it was hilarious because you would take the bus, sit next to someone, and the person would start asking you: 'Where do you live? How many years have you lived in Brazil? Do you have children? You married? Are you enjoying it?'. And there were many questions in a very short period that sometimes bothered me. It's because I didn't have this closeness with these people. I wasn't used to answering many questions for strangers" (E5, PEC-PG, male, 33, Cuba – Masters in Communication).

"I think it was the language itself, understanding what others were saying outside the school environment. Because at the School, knowing that there is a foreign person, people tend to speak more correctly, more slowly. In everyday life, it was a little more complicated, shopping, making a call" (E6, OP, male, 32, Italy – Ph.D. in Structure Engineering).

"Then, my biggest challenge is my area, the research area of my master's degree. So, for anyone who does a master's degree in the area and changes and enters another, it will be difficult [...] It was from an area within Computer Science, which had nothing to do with my doctorate, it was from the part of data mining and IT, and I entered the field of Robotics. There was no way I could bring anything from my previous area to this one. So, I had to start from scratch, practically. So, it was a significant difficulty. The first difficulty for me was enormous. And the other is the requirement of the DCC, right? DCC, for me, is one of the most challenging colleges in the federal government. To say that it is more complicated. For me, it's the most difficult [...] they already took it out because of complaints from the student community [...] that they disagreed with certain things there. But I remember that at the time [...] there were 2 qualifications [...] The first Qualification was 8 tests. Eight written tests are... of subjects [...] that defined their area [...] they call it the 1st Qualification. If you don't pass that, you are kicked out of the program. So, yeah... that was the first stress. Yes, you have I year to complete these 8 tests. [...] You selected the date you wanted to go to take each test. And I took the test at the time [...] If in I year you couldn't pass them all, you were expelled from the program. So that was the first stress [...] And after that, there is the second Qualification, which everyone has. Which is the defense of your doctoral proposal [...] You don't arrive with a project [...] generally at the DCC. You come to qualify after you have an article. Otherwise, you can't [...] The requirement is for article A1. The Computer Science Department's thinking is like if you were part of a program in the United States [...] So, getting an A1 article in the area is stressful [...] the most challenging part was getting the pre-requirements. Understood? To continue the doctorate for the first Qualification was difficult. Yeah... during this problem, I had some family problems, which meant that I had to go back to my country and stay there for a while. Yes... yes, and then, when I came back, I still had to be able to continue

with these tests, this first Qualification" (E7, OP, male, 35, Cuba – Ph.D. in Computer Science).

"I think that the most difficult was to get an AIESEC Brazil [...] I discovered that there is this organization that's international, and I knew from my city [...] I was thinking that it's going to be easy like I'm just going to apply and then they're going to accept me. Then I discovered that they don't respond to my emails to my messages. I had to find a contact of someone from the board of this organization, and eventually, they contacted me. I got to an interview. And it was in Portuguese, because they're not speaking in English, even though they are an international organization and that that was very weird for me. Like they're getting international students, they take care of them, but they don't speak English. And eventually, they accepted me" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

"Also, that was very difficult for me was to go through the city with the bus. Because I discovered that the buses don't stop. If you are in the station, you have to stop them [...] Yes, and they also don't stop if you're on the bus, you have to press the button to stop the bus like [...] also, I had problems with buying tickets because you have to pay the driver and he gives it a ticket. Then you have to use a ticket to go through the role through that thing [...] I was always having problems with that, even after two months. I was still struggling to go through that thing... so I remember that there were people on the bus [...] I learn how to say that I want a ticket like I don't recall now. I was saying I was keeping the ticket. I was putting you through and going to that thing. Always people were laughing of how I would think that ...I don't know. I was doing something wrong" (E8, OP, male, 24, Romania – Masters in Knowledge Management and Organization).

"[...] My biggest challenge was the logistics of living in a big city [...] I think it was a significant impact for me, getting used to losing a lot of time in traffic [...] having to live far from the university [...] the confusion of people, you weren't used to being in crowds like that [...] A big financial impact, too. Because everything is much more expensive. I think it takes a lot more, but for me, it was the logistics of transporting me, perceiving myself in space, that the giant university too, right? but the city itself, being a gigantic city, was different for me" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

### K.71 - Experiências pessoais / Personal experiences

"I had some contacts, some neighbors because I saw that some have prejudices. And I decided to leave it aside. Because when I arrived, there was something like that 'you are African, but you are not violent' [...] As I am African and Africa has the stereotype of only having a war, it has hunger. So, they associate war and famine, and they think, as I'm a more educated person, so I go up to people and say, 'Oh, you're African, but you're not violent' A Brazilian told that, and from that moment on, I identified this person, but it was one of the few cases I mentioned intolerance" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"So, there is the issue that is not just the PEC-PG. It happens with other programs that have scholarships, that if you defend the dissertation months before the deadline of 2 years, you lose all the scholarships for the months until you complete the 2 years. I lost 2 scholarships of the month corresponding to January and February because I did the defense before. So, I see it's a contradiction because the student who manages to make a defense before the date for whatever reason is because he/she worked very hard, dedicated, managed to do it. It is a credit to this person who managed to finish this master's degree in less time. Why then do you have to return the scholarships? the student will never want to finish sooner [...] So, in this case, no, it's not a prize, but you lose if you do the defense first. So many students could do the defense first and close the dissertation first. They don't do it because of the scholarship money. In my case, it was mandatory because as I wanted to apply for the Ph.D. process, it was compulsory to make a defense in December. I knew I would lose these two scholarships, but in the case of PEC-PG, I had to return this money. It was a highly complex process because I received the scholarships. They are deposited because the contract says they are 2 years. Then they (CNPO) got in touch with several departments, they even charged me more than the value of these two scholarships due to taxes, I think like 300 reais more that I had to return. This process was complicated there. This communication was via email only, with the CNPO scholarship department, directly with them, nothing through the program. The Graduate Program Help Desk didn't know anything about the scholarships, nor how they were in my process. But this was the only part that should perhaps improve" (PEC-PG) for students (E2, PEC-PG, female, 35, Cuba – Masters in Information Science).

"It was complicated because I arrived here (in Brazil); I was 18 years old. It was the first time I had left home (PEC-G). When I came to São Paulo, I found it very strange because it's different there, you meet someone, they invite you to do something, then, the next day, the person "doesn't even look at your face." That was weird to me! Also, I felt ignored in the classroom or in workgroups. So, I had to take action and impose on showing that I come from Africa because I'm a foreigner, which didn't mean that I didn't have the capacity. I thought about giving up a few times. But I persisted. That's why this time (PEC-PG) was different because I had already had this first impact before" (E3, PEC-PG, female, 28, Cape Verde – Ph.D. in Public Health).

"It is pretty hard. When we arrive (2008- study Portuguese) here to study (2009-Degree in Nutrition), especially those from a country that doesn't speak Portuguese. So, to look for it, I remember that it was very complicated when I arrived. Then a church where people spoke French translated the contract for me. Because I didn't understand what was written. I didn't want to sign a contract that I didn't understand. So, this person read it and explained to me what was in the contract so I could sign it. That's a lot of work. As I told you, a Francophone at UFMG, we were the first, in 2008. After we integrated into Brazil, the others who arrived did not have many difficulties. Because someone already spoke French, to take them to the Federal Police and, in other places, also to converse and translate. So, the beginning is very complicated" (E4, PEC-PG, male, 36, Benin – Ph.D. in Public Health).

"[...] When I arrived at the UFOP, we had 2 people who helped us a lot. Which was Mr. Adilson and Dulce. I forgot her name [...] it was Dulce [...] during my

stay in Brazil [...] I was fortunate, because, for example, in Ouro Preto, there is a system of 'Repúblicas' for those who come from abroad, for those who are arriving in the country, it is crucial because they organize themselves very well when it comes to a member who lives with them. And whenever I needed some kind of medical service or needed help because of an illness, I had more than 10 people to support me to help me resolve this, right? It's [...] both monetary and logistical, right? And to decide if I go to the hospital if that was it or not, anyway" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

#### K.72 - Sugestão de solução / Solution suggestion

"For example, in the DRCA, there should be more information on academic registration, more brochures to help the staff more. They have a faraway section in the Rectory, on the seventh floor, it's challenging to get there. There should be something more accessible, informing everything that needs to be done in the brochures. With the CPF, the Federal Police, better support should be required. And solve a lot of things there. More information and more disclosure of the essential things. There is a lot of information that is dispersed, and there should be a brochure to help" (E1, PEC-PG, male, 40, Cape Verde – Ph.D. in Knowledge Management and Organization).

"I think the adaptation was good. There were those things I told you about, but these things are more cultural aspects. And then thinking about things that could improve for the new students, these issues that come up from the beginning, when you are arriving, when you need to know how college works. I think it would be exciting for postgraduate programs to organize, in addition to the things that DRI manages, to organize activities for students to become familiar with the functioning of the faculty because we are bumping into things. We start clashing with the functioning of the library, with the processes of the Graduate Program Help Desk and other methods that are essential within the faculty and that we do not receive at least general information, to avoid clashing with these things later. And we go through a master's, a Ph.D. and continue to learn things we don't know" (E5, PEC-PG, male, 33, Cuba – master's in communication).

"[...] I know colleagues who were in very complicated situations. So, it would be good if they thought about a way to benefit from health, both physical and psychological health. The psychological care of a follow-up, because there are several that sometimes end up, even dropping out of studies, for lack of psychological follow-up. Because they don't always find the same structure, you're lucky to find a system that I found, for example, in Ouro Preto, which served me as something to calm me down. So, I know, I've had colleagues with significant psychological problems, too, that we had to talk. To sit down in groups, many times, trying to help. Some colleagues almost left. I didn't let it go, and today they are working elsewhere. But, I'm sure others weren't so lucky [...] Because not always the country, although you get a place, the level of education is not always so prepared. You have to be at a different speed. So, I think that some universities already have this monitoring. I think it's perfect. But I believe that mental health and the physical part as well should receive some kind of care" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).

"Having someone to guide these students, to know how they are, the difficulties, for example, for housing it is complicated, for outsiders, to be able to live in a place [...] with quality. Sometimes, there are times when you manage to reconcile the price and quality, but there are times that even if you have money, you can't. Because you don't have all the necessary documents to be able to rent a space and vou depend on other Brazilians, the over comprehension of people, who rent that house and people with all rights, sometimes are not always willing to break some [...] rules for receiving you or for knowing that you are a foreigner [...] I think that this primary contact for you arrives and you have at least one place to live [...] have a guarantor or [...] someone who believes you'll stay there, it's essential and where are we going to look for a guarantor? a student arrives from Cape Verde doesn't know anyone, if I know the other students who will act as a guarantor? [...] sometimes you go looking for a house, which may not be appropriate, but the owner allows you to live without that rental contract, right? So, I think that kind of assistance would be crucial. By doing that, we can do the rest well" (E9, OP, male, 37, Cape Verde - Ecology, Conservation, and Wildlife Management).