

Measuring Brazilian science diplomacy: what do international students think of Brazil?



Avaliando a diplomacia científica brasileira: o que os estudantes internacionais pensam do Brasil?

Evaluando la diplomacia científica brasileña: ¿qué piensan los estudiantes internacionales de Brasil?

Gabriela Gomes Coelho Ferreira¹
Rodrigo Pedrosa Lyra²
Amâncio Jorge Silva de Oliveira³

1. Postdoctoral researcher at the Department of Political Science at the University of São Paulo (DCP-USP). FAPESP Grant n. 2022/00077-2.

2. Postdoctoral researcher at the Center for International Negotiations Studies at the University of São Paulo (Caeni-USP). CNPq Grant n. 151279/2023-3.

3. Full Professor at the Institute of International Relations at the University of São Paulo (IRI-USP).

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ABSTRACT

Most of the scholarship programs came from developed countries. However, more recently, the literature has analyzed international scholarship programs in developing countries, such as the case of Brazil's PEC-PG and PEC-G. The literature argues that international scholarship programs are science diplomacy's tools, such as ways of exercising power through the influence of perception. In this paper, we aim to examine PEC-PG and PEC-G students' perceptions of Brazil. We conducted a survey in 2019 based on a 2017 database (Lattes Platform). Considering that PECs are a consistent Brazilian program dating back to the 1960s, a positive perception would be the expected result of a successful science diplomacy policy. Descriptive statistics, however, show that most respondents have a negative image of Brazil.

Keywords: science diplomacy; PEC-PG; PEC-G; Brazil; scholarships

RESUMO

A maioria dos programas de bolsas são de países desenvolvidos. No entanto, mais recentemente, autores têm analisado programas de bolsas internacionais em países em desenvolvimento, como é o caso do PEC-PG e do PEC-G do Brasil. A literatura argumenta que os programas de bolsas internacionais são ferramentas da diplomacia científica, ou seja, formas de exercício do poder pela influência da percepção. Neste artigo, buscamos examinar a percepção que alunos do PEC-PG e do PEC-G tiveram do Brasil. Realizamos uma pesquisa, em 2019, com base em informações retiradas da Plataforma Lattes em 2017. Considerando que os PECs são um programa brasileiro consistente, que remonta à década de 1960, uma percepção positiva seria o resultado esperado de uma

política de diplomacia científica bem-sucedida. Nossos resultados, baseados em estatística descritiva, no entanto, mostram que a maioria dos entrevistados têm uma imagem negativa do Brasil.

Palavras-chaves: diplomacia científica; PEC-PG; PEC-G; Brasil; bolsas

RESUMEN

La mayoría de los programas de becas son de países desarrollados. Sin embargo, más recientemente, autores han analizado programas de becas internacionales en países en desarrollo, como es el caso de PEC-PG y PEC-G en Brasil. La literatura sostiene que los programas de becas internacionales son herramientas de la diplomacia científica, es decir, formas de ejercer el poder a través de la influencia de la percepción. En este artículo, buscamos examinar la percepción que los estudiantes de PEC-PG y PEC-G tenían de Brasil. Realizamos una encuesta, en 2019, basada en información tomada de la Plataforma Lattes en 2017. Considerando que los PEC son un programa brasileño consistente, que data de la década de 1960, una percepción positiva sería el resultado esperado de una ciencia bien establecida. política diplomática. Sin embargo, nuestros resultados, basados en estadísticas descriptivas, muestran que la mayoría de los encuestados tienen una imagen negativa de Brasil.

Palabras claves: diplomacia científica; PEC-PG; PEC-G; Brasil; becas

Introduction

International scholarship programs for higher education allow thousands of people worldwide to study outside their country of origin every year. These initiatives are supported by governments, supranational organizations, and charities as part of both public diplomacy (Mawer, 2014) and soft power strategy (Ferreira; Oliveira, 2020). Scholarship providers increasingly invest in evaluating the results of these systems by analyzing the trajectories of students and alumni during and after the scholarship to assess their progress toward the objectives of the scholarship program policy. However, in Brazil there is no systematic evaluating system regarding studentships. In this article, we aim to contribute to the literature by offering descriptive statistics about two important Brazilian scholarships: The Program for Partner Undergraduate Students (PEC-G) and the Program for Partner Postgraduate Students (PEC-PG).

Policies linked to education, science, and technology activities have historically stimulated integration among nations and reinforced long-lasting partnership ties (Domingues, 2019). On this note, science diplomacy can be described as engaging with foreign governments and international students to achieve a positive relationship or a positive image abroad (Turekian, 2018). For the same reasons, exchange programs and scholarships are standard tools for bringing countries together. In this regard, scholarship programs that enable the exchange of students are among the leading contemporary instruments of science diplomacy.

Recently, the literature has analyzed international scholarship programs in developing countries (Bonilla; Serafim; Bámaca-López, 2021; Echeverría-King et al., 2022; Quiroga, 2021). Some authors have studied the development of the Brazilian strategy of using the educational agen-

da as a foreign policy tool, with particular attention to PEC-PG (Candeas, 2005; Cortés Diaz, 2013, 2013; Ferreira; Oliveira, 2020; Iglecias, 2013)⁴. In this paper, we aim to answer the following research question: what is the perception of Brazil among PEC-PG and PEC-G students?

We consider that international scholarship programs are science diplomacy's tools, in other words, ways of exercising power through the influence of perception (Ferreira, 2019). We aim to contribute to the literature by measuring how effectively PEC-G and PEC-PG have boosted Brazil's image abroad. Considering that PECs are consistent Brazilian programs dating back to 1960's, students' positive views would be the expected result of a successful science diplomacy policy. However, after a survey sent to 65,493 international students and researchers, the result was quite different from what we expected. Even though we found no evidence that the negative perception directly results from being part of the PECs, most respondents hold a negative perception of Brazil, as we will explain in the following sections.

This paper is organized as follows: following the introduction, there is a literature review on science diplomacy and international scholarships. Next, we explain the history behind both PEC-G and PEC-PG and how they align with the Brazilian foreign policy strategy. In the third section, we present the research design of this paper and the survey we applied. Fourth, we discuss the main results and some of the literature's possible explanations for them. Finally, we make final remarks.

1. Literature review

It is possible to analyze the concept of science diplomacy in two primary approaches. "The first one is related to the French diplomatic tradition, which mixes university policy, science policy, and language diffusion by considering science as one of several vectors of a country's cultural policy and of its influence on the global scene (...) justified by the ultimate purpose of influence. Science diplomacy is part of soft power, and so are the international promotion of national language or cinema, etc." (Ruffini, 2017, p. 15). The second conceptual approach, which is linked to the Anglo-Saxon definition of science diplomacy, distinguishes science diplomacy from cultural diplomacy by arguing that they are independent policies. However, based on recent empirical evidence (Ferreira; Oliveira, 2020), we argue that the Brazilian government has not treated science, cultural, and educational diplomacy as different dimensions. In this article, we use the broad concept of SD rather than educational diplomacy or cultural diplomacy.

By analyzing both diplomatic and government documents, Ferreira and Oliveira (2020) argue that the French definition of SD is more aligned with the Brazilian policies led by the government since the 1960s. According to the authors, the Brazilian government has used culture, science, and education as foreign policy tools to build a positive image abroad. The Brazilian Cultural Agreements is a telling example of how the Brazilian government employs science, education, and diplomacy in a complementary fashion. Furthermore, between the 1920s and 1940s, France played a vital role in Brazil by increasing its political influence

4. However, no empirical studies focusing on the opinion of foreign students, whose objective was to measure the success of these strategies, or even their determinants, were found.

through its cultural diplomacy (Suppo, 2000, p. 309). As a result, Brazilian science diplomacy considers science “essential to the society’s development” (Ferreira; Oliveira, 2020). Finally, between 2011 and 2020, the Brazilian National Postgraduate Plan (PNPG), which is part of the Brazilian National Education Plan (PNE), stated that the internationalization of higher education was expected to “increase Brazil’s role in the international arena” (Capes, 2010, p. 303). This government goal is related to the third dimension of SD.

Literature divides science diplomacy into three dimensions: science in diplomacy, diplomacy for science, and science for diplomacy. The first one is related to the role of science in curbing environmental threats. The second one seeks to increase collaboration between scientists and researchers. Finally, “science for diplomacy” regards the use of scientific cooperation to improve bilateral and multilateral relations among countries (The royal society, 2010), which aligns with the Brazilian government goals mentioned previously.

The literature defines SD in different yet similar ways, such as the “practices in which actions of researchers and of diplomats interact” (Ruffini, 2017, p. 16) and “scientific cooperation and engagement with the explicit intent of building positive relationships with foreign governments and societies” (Turekian; Lord, 2009). In this vein, science diplomacy is a vehicle to foreign policy goals (Epping, 2020). Most of the literature are concerned with the networks and connections between recipients of scholarships and the host country (Mawer, 2014). Some authors analyze the impact of SD in emerging economies by alleviating asymmetries between the North and the Global South (Bonilla; Serafim; Bámaca-López, 2021; Hornsby; Parshotam, 2018). Some works have been concerned with the effect of co-authorship on doctoral publications thanks to the collaboration between different knowledge areas and between different countries (Böhmer; Von Ins, 2009; Jacob; Lefgren, 2011).

We argue that science and educational diplomacy are complementary concepts in Brazil, as the Brazilian government uses them all together to increase international leverage (Ferreira; Oliveira, 2020). Furthermore, by analyzing science and educational diplomacy as SD, we agree to some authors who believe that the focus of analysis should be “the place of knowledge and expertise in state interactions” (Hornsby; Parshotam, 2018, p. 30). Therefore, we use the idea of SD as our primary conceptual approach to analyze the perception of international students.

When we think of diplomacy and public perception, we usually think of soft power. Some authors argue that science diplomacy is a political resource related to both hard and soft power (Ruffini, 2017). While science is hard power concerning defense policies, there is also a broader scope of scientific initiatives related to the use of persuasion (Ruffini, 2017). For instance, a given country seeks to increase its influence abroad by creating a positive image among international students. The argument goes that some international students might become the future elites and decision-makers of their respective countries, which is a reason to forge closer ties with them. In this paper, we advocate the idea that science diplomacy means precisely the use of science to boost diplomatic influence abroad.

2. PEC-G and PEC-PG: an overview

Brazil's PEC-G and PEC-PG were both created during the dictatorship rule (1964–1985). The Program for Partner Undergraduate Students (PEC-G) was officially established by Decree No. 55613 (1965)⁵ by the first military president, President Castelo Branco. Later, PEC-PG was created during President Figueiredo's administration in 1981. PEC-G and PEC-PG's official objective is to improve the qualification of university professors, researchers, professionals, and graduates of higher education, aiming to contribute to the development of their countries. These programs seem to emulate other international scholarship programs, such as Fulbright in the United States, Chevening in the United Kingdom, and Erasmus Mundus in the European Union. The donor countries of these programs, according to some authors, seek to culturally influence other countries as a power strategy (Ferreira; Oliveira, 2020; Trilokekar, 2010).

Under PEC-G, students can undertake their undergraduate studies in Brazil for free. And, in cases related to merit or economic needs, Brazil may provide funds for these students after the first year of study. In some instances, the Brazilian government provides these students with return tickets to their country of origin. PEC-G has been running by Itamaraty, through the Division of Educational Themes, and by the Ministry of Education (MEC), in partnership with higher education institutions throughout the country. According to official web pages, the idea of creating a government program to support students from other countries followed the increasing number of foreigners in Brazil in the 1960s. The objective was to regulate the status of these students in Brazil by unifying the conditions of student exchange and ensuring that universities would give similar treatment to students (Ferreira; Oliveira, 2020, p. 100).

The PEC-PG program is slightly different: since it is focused on graduate students—and, therefore, on research and knowledge production, not only does it offer the course for free, but it also comprehends a grant of the same value received by Brazilian students, as well as the return tickets. The PEC-PG was officially established in 1981, with its first protocol and updated in 2006. The program is administered by three agencies: Ministry of Foreign Affairs (*Ministério das Relações Exteriores—MRE*), through the Division of Educational Themes (*Divisão de Temas Educacionais—DCE*); Ministry of Education (*Ministério da Educação e Cultura—MEC*), through the Coordination for the Improvement of Higher Education Personnel (*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior—CAPES*); and the Ministry of Science, Technology and Innovation (*Ministério da Ciência, Tecnologia, Inovações e Comunicações—MCTIC*), through the National Council for Scientific and Technological Development (*Conselho Nacional de Desenvolvimento Científico e Tecnológico—CNPq*) (Ferreira; Oliveira, 2020)

The goals of PEC-G and PEC-PG go beyond development and assistance objectives. Instead, they present political purposes, as they intend to build long-term bilateral relations and positive perceptions regarding Brazil. As some of these students might become the future leaders or decision-makers of their countries, a positive image of Brazil is the main objective, as it is the country's soft power asset. Therefore, it is a condition of PEC-G and PEC-PG programs⁶

5. PEC-G is currently governed by Decree No. 7948 (2013), which was designed to provide further legal force to PEC-G's regulation.

6. Currently, both programs are part of the Brazilian Cooperation for International Development (COBRADI). According to the last report released in 2013 by the Brazilian Agency for Cooperation (ABC) and the Institute for Applied Economic Research (IPEA) on COBRADI, this policy is classified as educational cooperation.

for students to return to their countries of origin, and, as an incentive for such, the return ticket is included in the grant (Ferreira, 2019). In this paper, we analyze the students' perception of Brazil as we believe this is the most crucial measure of soft power regarding the role of this studentship program.

3. Research design

In this paper, we aim to answer the following research question: what is the perception of Brazil among PEC-PG and PEC-G students? Through descriptive statistics, the main objective of this research is to verify the impact of PEC-PG and PEC-G (independent variable) on the perception of international students (dependent variable). We conducted a survey in 2019 based on a 2017 database (Lattes), as we explain below.

Most of the literature on international scholarships based their analysis on interviews (Jacob; Lefgren, 2011; Mawer, 2014; Quiroga, 2021; Turekian, 2018). Therefore, creating surveys is the primary tool for data collection in these cases. Following the examples of these works, in this paper, we conducted a survey by sending an invitation to the e-mail to 65,493 students and professors through *SurveyMonkey*⁷. We created the database through the Lattes Platform⁸. This website makes it possible to search specifically for foreign researchers and international students working in Brazil. We downloaded all the students' curricula and their e-mails, which would be pivotal in sending them our survey. Following the literature (Amos et al., 2009; Day; Geddes, 2008), we based our questions on variables such as socio-demographics of candidates, scholarship process and satisfaction, return to home country, and so on, as we will show in the next section of this article. Our quantitative analysis of this self-report survey is descriptive as we intended to get an overview of the students' perceptions of Brazil.

In June 2019, we sent 65,493 invitations in seven days, respecting the daily limit of *SurveyMonkey*: 6 days sending 10,000 invitations per day and one day to send the last 5,493. Until June 24, the survey had been opened by 4,984 people or 7.6% of the total—which was above expected. Nevertheless, out of these 4,984 students, only 65% completed the survey. Since we had a heterogeneous dataset containing all international students and researchers with a curriculum at Lattes Platform, we divided the survey into three main groups. The first primary division was between those who had never studied in Brazil (G1) and those who did or were presently having an educational experience in Brazil (G2). This second group (G2), the group of students, was subdivided between those who are still students (G2.1) and those who had this experience in the past (G2.2): the division makes sense since the questions should be different for them.

All three groups answered the page concerning the perception of Brazil and provided socioeconomic details. But only those who were students in Brazil answered the extended version regarding this experience—and the factors that could have shaped their perception. Accordingly, the survey was designed to measure each concept and variable through the indicators presented. As described in Table 1, we organized the survey where the dependent variables are highlighted in bold, and the leading independent variables are highlighted in italic. In this paper, we focus on the image of Brazil.

7. SurveyMonkey is platform that allows the creation and administration of online surveys.

8. The Lattes Platform is an integrated database led by the Brazilian National Council for Scientific and Technological Development (CNPq) to manage information on individual researchers and institutions working in Brazil. Lattes is also a good source of data on science, technology, and innovation, as all researchers and institutions are required to keep their records updated.

Table 1 – Survey Structure

Question	Group 1- Did not study in Brazil	Group 2 – Current Students	Group 3 - Former Students
		Question Number	Question Number
Gender	1	1	1
Citizenship	2	2	2
Place of residence	3	3	3
Education	4	4	4
Father's profession	5	5	5
Mother's profession	6	6	6
Father's education	7	7	7
Mother's education	8	8	8
Current Image of Brazil	9	9	9
Is Brazil a leader?	10	10	10
Brazilian cooperation with your country	11	11	11
Soft to Hard Experiment: OECD; NATO; UN	12	12	12
Division between non-students and students	13	13	13
Division between PECs and non-PECs	End	14	14
Division between current and former students		15	15
Date of arrival in Brazil		16	36
Which program is an active student of?		17	
Departure from Brazil		18	37
IES		19	39
Area of knowledge		20	38
Why Brazil?		21	40
The importance of your experience in Brazil		22	41
Have you lived in Brazil before? Control		23	42
Did you live in another country? Control		24	43
Which country is the former Control		25	44
What was the image of Brazil before the experience in the country?		26	45
Degree of satisfaction with Brazilian institutions (embassies, MRE, IES, MEC)		27	46
Reviews 27		28	47
What are your difficulties in Brazil?		29	48
Name / E-mail		30	56
Date of birth		31	57
Want to be part of an alumni network?		32	58
Contact		33	59
Division (alumni/students): Did you finish your studies in Brazil?			34
Why did you not finish your studies in Brazil? Complements question 34			35
What did you do after being a Brazilian student?			49
Did you work after?			50
Where did you work?			51

Question	Group 1- Did not study in Brazil	Group 2 – Current Students	Group 3 - Former Students
		Question Number	Question Number
What is your professional area?			52
Do you have activities in partnership with Brazilians?			53
Do you consider yourself a leader?			54
Has your experience in Brazil contributed to your professional position?			55

Source: Elaborated by the authors

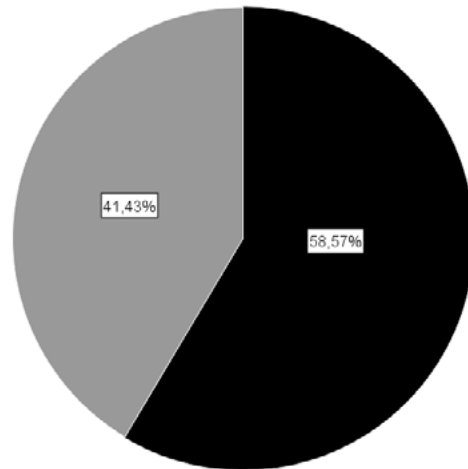
4. Discussion and results

The use of education as a foreign policy tool is usually associated with developed countries. However, major developing countries have started to adopt strategies for the new international arena, which is constantly affected by technological transformations (Cortés Diaz, 2013; Quiroga, 2021). Those strategies include scientific and educational agreements that aim to exchange knowledge and shape public opinion. In this regard, Brazil has a mixed foreign policy that aims to foster development but, at the same time, benefits from it by having developing countries’ elites connected with the country. It comes as no surprise that Brazil’s Ministry of Foreign Affairs has an essential role in the administration of both PEC-G and PEC-PG programs (Ferreira; Oliveira, 2020, p. 100)

Brazilian official discourse stresses three main lines through which education is used as a foreign policy tool. In cooperation, it intends to help other Global South countries’ development by qualifying their human capital, which would attract foreign investment and technology. Culturally, it fosters the coexistence of people from different backgrounds, enhancing mutual understanding and tolerance. And politically, it tries to *construct* Brazil’s image as a vital actor to these foreign citizens, projecting the country in the transnational arena, along with its ideas, values, and discourse (Ferreira; Oliveira, 2020) Therefore, we argue in this paper that the granting of international scholarships is a governmental strategy of power that seeks to increase the influence of one country over another through critical individuals who are or will become elites, opinion-makers, and decision-makers.

Considering the importance of the perception of key individuals in political decision-making, it is crucial to analyze these international students’ perceptions of Brazil’s position in the transnational arena. However, despite Brazil’s efforts, we find that international students and researchers did not have a good image of Brazil (Graph 1). Their perception was worse after living and studying in the country (Table 2). The results are displayed in Graph 1.

Graph 1 - In general, how do you currently evaluate Brazil's image?



Source: Elaborated by the authors

In Graph 1, the black area shows the percentage of respondents with a negative perception of Brazil, and the gray area represents those with a positive image of the country. According to the survey, 58.57% out of the 3,333 respondents have a negative perception of Brazil. This result is entirely unexpected, given that some authors point out that those who choose to answer surveys tend to be more positive regarding their evaluation (Mawer, 2014). In this regard, Mawer (2014) argues that this is indeed a problem concerning surveys in general, as their result might be lopsided. However, in this survey, we found more negative than positive answers about students' perceptions of Brazil (Graph 1). Interestingly, 90,74% of the 2,339 respondents have had a good image before their experience in Brazil, as shown in Table 2. The results indicate that studying in Brazil harms the perception of the respondents.

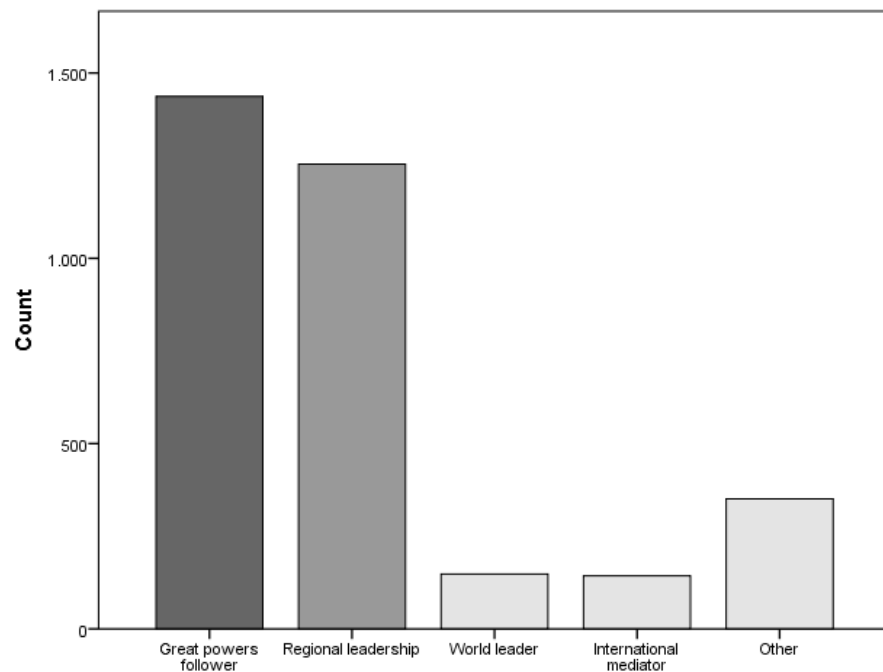
Table 2 – Comparison between previous and current perceptions of Brazil's image

Students of Brazilian educational institutions		In general, how do you currently evaluate Brazil's image?		
		Positive	Total	
		Count	Count	
How did you evaluate the image of Brazil before living in the country as a student of a Brazilian institution of higher education?	Negative	150 (70%)	65 (30%)	215
	Positive	1277 (60%)	847 (40%)	2124

Source: Elaborated by the authors

Evaluations of scholarships should consider the scholarship recipient's perception of the host country's international reputation (Ferreira; Oliveira, 2020). Therefore, the second question about the Brazilian image required respondents to classify Brazil, choosing from four categories: regional leader, world leader, mediator, and follower of the great powers. Most answers reflected a division between perceiving Brazil as a follower of great powers or a regional leader (Graph 2). Either way, respondents see Brazil as a relevant player in international politics.

Graph 2 - Among the following alternatives, which is the most appropriate to describe Brazil and its insertion in the world scenario?



Source: Elaborated by the authors

In the 1990s, Brazilian foreign policy was marked by its willingness to accept the international agenda, integrate with the mainstream dynamics, and adhere to the multilateral regimes of the new global order. Since 2000, however, Brazil has been oriented towards constructing a legitimate identity based on values created by developed countries: solidarity and struggle for domestic and international equality. Brazil's desire to influence the international order and regimes must be understood mainly in soft forms of power, based on attraction strategies, especially avoiding military force in its demands (Lessa; Altemani, 2012). Thus, it is possible to affirm that Brazilian foreign policy favors processes of persuasion and attraction (Ferreira, 2019). Graph 2 shows that many respondents believe Brazil is a regional leader, which might be a consequence of the foreign policy guidelines of the 2000s.

Since 2002, after the rise of the Workers' Party to the Brazilian government with the victory of President Lula, a change in political alignment—from North-South to South-South—was the main characteristic of Brazilian foreign policy (Ferreira; Oliveira, 2020; Lessa; Altemani, 2012). The Brazilian government prioritizes the Global South by developing coordinating partnerships, the so-called South-South Cooperation (Iglesias Puente, 2010). According to the official discourse, unlike the North-South relationship, South-South cooperation intends to treat political, economic, and technical interests among developing countries with a more horizontal approach. An example of such cooperation was the growing importance of the Program for Partner Graduate Students—PEC- PG (Ferreira, 2019).

Graph 2 shows that both students' and researchers' perception of Brazil's geopolitical position in the international arena aligns with the Brazilian diplomatic goal of being a leader in the region and a vital representative of the Global South. Even though it is not possible to state that this perception comes from these students' experience in PEC-G and PEC-PG, they could have had a negative perception of Brazil's power in international politics after living and studying in the country. It is interesting to notice that despite the overall negative perception of Brazil (Graph 1), both students and researchers think Brazil plays a significant role in regional politics, which raises the question: is their negative image of Brazil (Graph 1) related to the country itself or the academic life in Brazil?

Table 3 evaluates the main difficulties students and researchers faced during their experience at a Brazilian educational institution. Issues related to establishing academic contacts after finishing the studies and the lack of information when choosing the course and the city appear as common problems in other international studentships. Therefore, they are probably more related to challenges and difficulties in academic life rather than specific problems of Brazil's PEC-G and PEC-PG. In this article, we did not evaluate political variables that could have constrained students' experience in Brazil. However, considering that almost half of the respondents (47.55%) reported they did not have any difficulties, it is not unreasonable to argue that institutional arrangements were not precisely the reason for their negative perception of Brazil.

Table 3 – Difficulties related to the Brazilian experience

Please indicate the main difficulties you faced during your experience as a student at a Brazilian educational institution (before, during, and/or after the experience in Brazil)		
Answer Choices	Responses	
I had no difficulties	47,55%	796
I could not establish professional partnerships after finishing my studies	20,73%	347
Other	16,97%	284
I did not have enough accompaniment and information when I was choosing the course/city	15,17%	254
I could not establish academic contacts after finishing my studies	11,95%	200
I did not have support from the Brazilian government during my stay in Brazil	10,33%	173
I had difficulty proving Portuguese proficiency before arriving in Brazil	7,35%	123
I did not have support from the Institution of Higher Education during my stay in Brazil	5,38%	90
I could not establish academic contacts during my stay in Brazil	4,78%	80
I could not establish friendly relations during my stay in Brazil	4,54%	76
Total Answered		1674

Source: Elaborated by the authors

Conclusion

The existing literature increasingly pays attention to education, science, and technology as foreign policy tools. Most developed countries have been using cooperation programs as soft power assets to forge clos-

er ties with foreign elites and decision-makers. As a developing country, Brazil plays an interesting position in international politics by being a developing country while at the same time seeking leadership and power in the global arena. This is why Brazil created the PEC-G and PEC-PG programs under dictatorship rule in the 1960s. This paper aimed to analyze both programs through descriptive statistics based on a survey.

Evaluating the PECs is essential to measure the impact of government investments and inform the program reformulation and improvement based on the information obtained. However, an essential feature of this policy is the lack of institutional evaluation by Brazil's Ministry of Foreign Affairs. Although some academic work has been done on the subject, mainly because of the focus on South-South cooperation adopted by the last governments, there is no consistent evaluation being carried out by the government. A longitudinal study would be important to evaluate the program's outcomes and to assess the factors that contribute to either the success or failure of this educational policy.

Considering that Brazil's PEC-G and PEC-PG were created to increase the country's soft power, the results in this paper are not only essential to evaluate Brazil's studentship programs. Instead, we argue that the perception of international students is an indispensable component of evaluating Brazil's soft power policy. In this article, we found that most respondents hold a negative perception of Brazil. This perception is worse after their experience of living and studying in the country. We find no evidence that the negative perception directly results from being part of the PECs, though. Almost half of the respondents reported no difficulties regarding educational constraints. On this note, political variables might explain the negative perception of the country. However, this and other potential factors require further research.

In this paper, we did not have the purpose of conducting quantitative research by isolating and measuring correlation between variables⁹. Therefore, we cannot make overall assumptions on the causes of the negative perception of Brazil. However, descriptive statistics are essential tools to analyze and understand public policies. This paper shows that the current perception of Brazil among international students is negative, which should bring attention to potential setbacks.

We believe further research on Brazil's PECs would benefit from longitudinal analysis over time. A structured evaluation of the selection processes, for instance, could provide important information according to up-to-date methodological designs. Furthermore, the Brazilian government could greatly benefit from a consistent monitoring system on the PEC-G and PEC-PG programs. Future investigations could examine what types of factors, besides the participation in PEC-PG/G, might have shaped students' negative perception of Brazil. Such data would allow the development of accountability tools, for instance. Implementing a systematic evaluation process for both programs should be the next step for Brazilian policymakers. In this regard, partnerships between the government and research institutions would allow further developments and a more effective science diplomacy.

9. See Ferreira, G. G. C., Pereira, L. D., Onuki, J., & Oliveira, A. J. S. N. de. (2022). The effects of the higher education exchange programs on the elites' image of Brazil. *Revista Tempo do Mundo*, (28). doi:10.38116/rtm28art9.

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