



The Educational Role of University Libraries: Mapping of Difficulties and Interests of Undergraduate and Postgraduate Students in Academic Work

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ABSTRACT

This study aims to present the difficulties of undergraduate and graduate students in carrying out academic work, as well as reflecting on the educational role of university libraries. It is a qualitative and quantitative research, which was developed through bibliographic research and survey. A questionnaire with open and closed questions was used, applied in August 2018 to participants of the CAPES Scholarship group on social media Facebook. The survey was attended by 85 respondents. The main difficulties mapped are related to aspects such as defining the theme and elaborating the research problem, as well as the bibliographic survey, scientific writing and personal aspects, which include items such as focus, motivation, physical and mental disposition, among others. It was possible to understand education and information as inseparable, so that university libraries can develop an educational and teaching-learning role in this context, supporting the mission of universities in teaching, research and extension.

KEYWORDS

Academic libraries. Higher education. Students. Research work.

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O Papel Educativo das Bibliotecas Universitárias: Mapeamento de Dificuldades e Interesses de Discentes da Graduação e Pós-Graduação na Realização de Trabalhos Acadêmicos

RESUMO

O presente estudo objetiva apresentar as dificuldades de estudantes de Graduação e Pós-Graduação na realização de trabalhos acadêmicos, bem como refletir sobre o papel educativo das bibliotecas universitárias. Trata-se de uma pesquisa quali-quantitativa, que se desenvolveu por meio de pesquisa bibliográfica e levantamento. Utilizou-se um questionário com perguntas abertas e fechadas, aplicado em agosto de 2018 aos participantes do grupo Bolsistas CAPES na mídia social Facebook. O levantamento teve a participação de 85 respondentes. As principais dificuldades mapeadas estão relacionadas a aspectos como definição de tema e elaboração do problema de pesquisa, bem como o levantamento bibliográfico, a escrita científica e aspectos pessoais, que compreendem itens como foco, motivação, disposição física e mental, entre outros. Foi possível entender a educação e a informação como indissociáveis, de modo que as bibliotecas universitárias podem desenvolver um papel educativo e de ensino-aprendizagem nesse contexto, apoiando a missão das universidades no ensino, pesquisa e extensão.

PALAVRAS-CHAVE

Biblioteca universitária. Ensino superior. Estudantes universitários. Trabalho intelectual.

El Papel Educativo de las Bibliotecas Universitarias: Mapeo de Dificultades e Intereses de Estudiantes de Grado y Posgrado en el Trabajo Académico

RESUMEN

Este estudio tiene como objetivo presentar las dificultades de los estudiantes de pregrado y posgrado en la realización del trabajo académico, así como reflexionar sobre el papel educativo de las bibliotecas universitarias. Es una investigación cualitativa y cuantitativa, que se desarrolló a través de la investigación bibliográfica y la encuesta. Se utilizó un cuestionario con preguntas abiertas y cerradas, aplicado en agosto de 2018 a los participantes del grupo "Bolsistas CAPES" (formado por becarios de la CAPES) en la red social Facebook. A la encuesta asistieron 85 encuestados. Las principales dificultades mapeadas están relacionadas con aspectos como la definición del tema y la elaboración del problema de investigación, así como la encuesta bibliográfica, la escritura científica y los aspectos personales, que comprenden elementos como enfoque, motivación, disposición física y mental, entre otros. Fue posible entender la educación y la información como inseparables, de manera que las bibliotecas universitarias puedan desarrollar un papel educativo y de enseñanza-aprendizaje en este contexto, apoyando la misión de las universidades en la enseñanza, la investigación y la extensión.

PALABRAS CLAVE

Biblioteca universitaria. Enseñanza superior. Estudiantes universitarios. Trabajo intelectual.

1 Introduction

Teaching, research and extension are understood as the triad that supports the mission of universities and encompass all students, regardless of the level to which they are linked. In 2018, Brazil registered almost 8.5 million enrollments in undergraduate courses (NATIONAL INSTITUTE OF STUDIES AND EDUCATIONAL ANÍSIO TEIXEIRA, 2019) and approximately 340 thousand students enrolled in Master's and Doctorate degrees (COORDINATION FOR THE IMPROVEMENT OF PERSONNEL OF TOP LEVEL, 2019).

For Severino (2007, p. 24), “you only learn, you only teach, researching; service to the community is only provided if such services are born and nourished by research”. The fruits or products of scientific research are academic works, within their different categories: scientific articles, conclusion papers, dissertations, theses, abstracts for events, among others. When considering the number of degrees, only at the Graduate level, in 2018, there are 87,333 graduates (COORDINATION FOR THE IMPROVEMENT OF PERSONNEL OF TOP LEVEL, 2019), which reflects a huge documentary mass between theses and dissertations delivered, without considering other productions made by students during the academic day.

Based on this reality, the concern that led to the construction of this research came from some key questions: are the disciplines of methodology that are generally taught in the courses sufficient to guide students in carrying out their research and academic work? What are the main difficulties encountered by students during the academic day? Where do they seek to resolve these doubts? What types of materials do you use or prefer to learn about the academic universe?

The objective of this article is to present the results of an applied research to undergraduate and graduate students, aiming to raise their main difficulties in the elaboration of academic works. The intention was to outline some reflections about the adversities, expectations and spaces that these students go through in the realization of their academic work, with ways to think about teaching-learning issues that can be addressed by University Libraries to fill gaps in procedures, techniques, methods, standards, among others.

Thus, the University Library is understood as a fundamental educational space in the production of scientific knowledge, in the teaching-learning of subjects so that they can deal with the informational universe and the different dynamics that permeate the construction of intellectual works.

2 Universities and the educational role of university libraries

The figures presented in the introduction to this article show an increase in access to higher education in recent decades. Three milestones can be seen as influencing this evolution: the first concerns the enactment of the Law on Guidelines and Bases for National

Education (LDB) in 1996, which led to an increase in the number of vacancies; the second refers to the adoption, beginning in the 2000s, of programs aimed at universalizing higher education, such as the Student Financing Program (FIES), the University for All Program (PROUNI) and the Plan Support Program of Restructuring and Expansion of Federal Universities (REUNI); finally, the third milestone included the development of affirmative policies as of 2012 (LEAL *et al.*, 2019).

In the context of Post-Graduation, it was recognized in 1965 as a level of education, which is considered the first milestone. In addition, there was an increase in the number of graduate programs, especially in the late 1990s, influenced by agency policies such as the Coordination for the Improvement of Higher Education Personnel (CAPES), the National Council for Scientific and Technological Development (CNPq) and Research Support Foundations (FAPs) (NOBRE; FREITAS, 2017).

Chauí (2003) understands the university as a social institution that reflects the structure of society. As a social institution, the university aggregates a plurality of knowledge and seeks to develop technical, social and scientific aspects in its members, with ways to establish not only a professional qualification, but also to promote research spaces.

Protagonists of this universe, students stand out as key players in the process of building knowledge. Viana and Pieruccini (2019, p. 5), during the presentation of some preliminary research results, pointed out that students “[...] exposed concerns regarding the demands of attitudes that higher education poses, recognizing that they do not have cognitive and cultural resources necessary to enter that territory”. It is based on this reality that the authors defend “the importance of expanding the conceptual limits that configure the university library in our country to be taken as an instance of mediation of scientific information culture” (VIANA; PIERUCCINI, 2019, p. 1).

University Libraries, established today to support teaching, research and extension of universities, are the result of a long historical process. According to Nunes and Carvalho (2016, p. 175),

throughout its history, libraries have evolved and adapted to the changes that have established their current characteristics and their social role. They are historically linked to human and social development, and in this sense, they also play an important role in mediating information, following not only the evolution of written production and the circulation of knowledge, but also the technological evolution that favors the communication process.

In Brazil, the evolution of university libraries is marked by initiatives aimed at raising the population's educational level, which therefore includes the creation of universities. However, it is only from the 1960s, with the expansion of universities in the country and the merger of different faculties, that university libraries began to consolidate (NUNES; CARVALHO, 2016).

From the 1970s onwards, there was a search for diagnosis and improvement in the management and professionalization of these places, through research, incentives and discussion spaces, such as the National Program for University Libraries, created by the Ministry of Education, the Library Guide Brazilian University Students, produced by CAPES and the National Seminars of University Libraries (MIRANDA, 1993), events that take place up to the present day.

Nunes and Carvalho (2016) argue that, since 1996, with the enactment of the LDB, the objectives related to higher education were set in relation to the development of research, scientific investigation, science, technology and culture, and that to meet to this mission, libraries establish direct relationships in the development of higher education institutions. In addition, there is also the National Higher Education System (SINAES), created in 2004, which establishes parameters for the evaluation of institutions, courses and students, in which university libraries are included.

In this perspective, university libraries

[...] are geared to meet the needs of all members of the academic community of which they are part, but in a dynamic process, where each of its activities is not developed in a static and mechanical way, but with the intention of acting interactively to expand access to information and contribute to the university's mission. (NUNES; CARVALHO, 2016, p. 179)

Beyond offering a bibliographic and documentary collection or study spaces, the university library has a fundamental role in the formation of academics, favoring the

[...] student learning, not only offering the knowledge that is accumulated in the various documents in different supports which she manages, but also from concrete actions that aim to optimize the development of students and teams of researchers in the information space, through learning actions. (NUNES; CARVALHO, 2016, p. 183)

Thus, university libraries can act as a mediating agent for teaching-learning processes both in the use of information resources, as in the construction of knowledge and in the formation of critical and reflective thinking.

Duziak (2001) comments that, just as before, there were difficulties in accessing information, with the fall of space and time barriers mediated by network connection and technologies, and the information explosion, this scenario became a paradox. Thus, while there is an excess of options, there are elements such as access costs, unlimited quantity, ignorance about tools and even the lack of skills to deal with this scenario, which, view of the author, is configured as barriers for the individual to understand:

1. How to define your information needs
2. How to effectively search and access the necessary information
3. How to evaluate it (relevant or not, relevant or not)
4. How to organize it
5. How to transform it into knowledge
6. How to learn to learn
7. How to learn continuously. (DUDZIAK, 2001, p. 5)

For the author, the items listed would allow individuals to deal with this reality, and libraries are agents involved in guiding these subjects in the path of learning and in the construction of knowledge.

It is based on this perspective that the question of the educational role of university libraries is raised, which seek to combine the issue of information and education as inseparable elements. Perrotti (2016) presents, based on this dynamic, the concept of Info-education, coined in 2000 from studies carried out since the 1980s and coordinated by the author. The term takes on a dynamic character that seeks to relate information and education in a non-hierarchical way, being concerned with the formative dimension of information and “deals comprehensively, dynamically and articulating informational and educational issues, considered both in their theoretical and operational” (PERROTTI; PIERUCCINI, 2007, p. 46).

Info education as a study area, located in the gaps in Information and Education Sciences, aimed at understanding the existing connections between symbolic appropriation and cultural devices, as a condition for the systematization of theoretical and methodological references necessary for the dynamic and articulated development of learning and devices informational, compatible with the growing demands of cultural protagonism, as well as scientific production, constituted under new perspectives, in the so-called Knowledge Societies (PERROTTI; PIERUCCINI, 2007, p. 91).

Although the authors mention that there is a difference between Info education and user education or information education, all are related to learning activities that require multiple approaches. User training, for example, is seen as fundamental in higher education institutions,

[...] since they have the purpose of assisting students in the teaching-learning process, specifically with regard to the informational universe and its processes, in order to add skills, knowledge and greater criticality in their academic training (MATA; ALCARÁ, 2016, p. 3).

The need to think about the links between information and education at universities goes through the understanding that these spaces are not only formative with professional paths, but that they build subjects who must develop critical awareness and lifelong learning. For Chauí (2003, p. 11),

[...] education means a movement of internal transformation from that which goes from supposed knowledge (or ignorance) to knowledge itself (or to the understanding of oneself, others, reality, accumulated culture and culture in its present or doing). Education is inseparable from training and that is why it can only be permanent.

Thus, thinking about education and information as inseparable, above all being promoted through university libraries, places them in a broad framework of multiple interactions. It is understood that in this context learning and knowledge generation are inserted, elements that are built through research and practice. In higher education, students are protagonists in the elaboration of science products, such as academic works, which are the end result of a long process of interrogations, research and knowledge construction.

3 Methodological Options

The present study was developed through bibliographic research and survey. This methodological choice made it possible to research the topic from the students' perspective, since the survey is characterized by “[...] the direct questioning of people whose behavior one wants to know” (GIL, 1987). Thus, there is a real knowledge of the studied reality, as the individuals themselves provide the data for analysis (GIL, 1987).

It is an applied research, characterized as exploratory. It has a quali-quantitative approach, with ways to measure the results, and, at the same time, contextualize and present the subjective aspects achieved through the survey.

For data collection, a questionnaire prepared using the ‘Google Forms’ platform, with 17 questions, between open and closed, was used. The questionnaire was made available to the Capes Scholars group¹, on Facebook, in August 2018. In its description, the group informs that it is a space for the exchange of information between fellows, serving as a space for articulation.

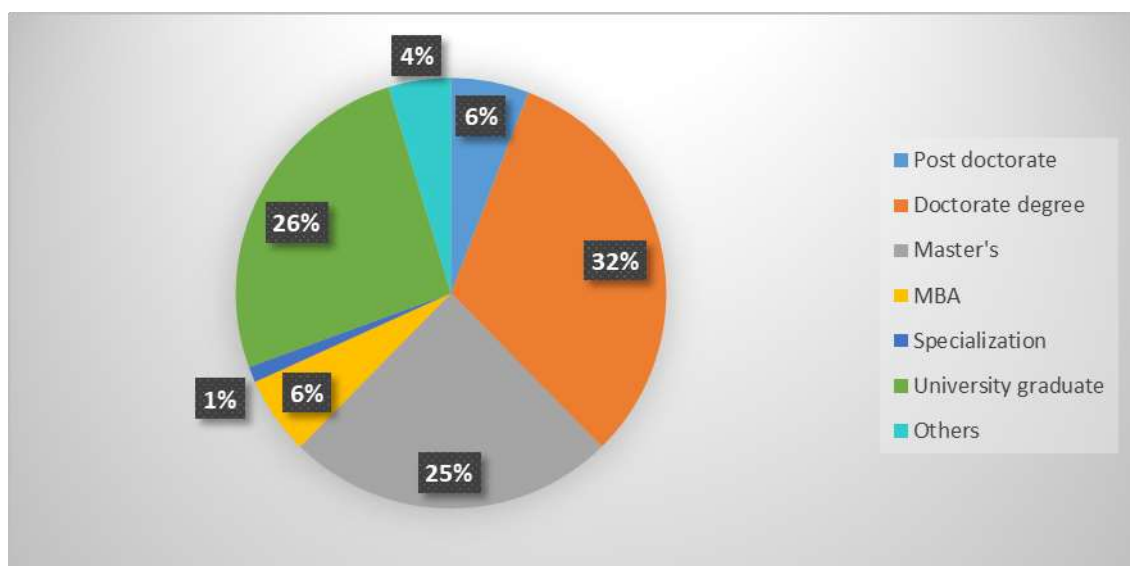
The purpose of the article was not to study the group, it served only as a place for the dissemination of the questionnaire to request the voluntary adhesion of students in participating in the research and thus reaching an audience with a diversity of institutions, geographical origin, ages, areas of the knowledge, among others. No restrictions on participation in the research were imposed. Due to the difficulty of making a statistical delimitation, data collection followed sampling for convenience.

The collected data were tabulated using a spreadsheet in Microsoft Excel, and analyzed, initially, in a quantitative way. Qualitative data from the questionnaire's open questions were grouped and categorized in relation to their content, in order to describe the greater predominance of information. For that, it was based on content analysis (BARDIN, 2011) to group similar responses and infer analysis categories, determining the frequency of occurrence.

4 Presentation and Discussion of Results

The questionnaire was answered by 85 participants. The predominance of respondents included the age group between 30 to 40 years, followed by 25 to 30 years. The female audience stood out among the participants, with 69.4% of the responses. In relation to the link with the university, the majority of participants answered that they are in the Doctorate, as can be seen in Graph 1.

¹ <https://www.facebook.com/groups/308640309159780/>. On February 19, 2020, the group had 65,818 members.

Graph 1. Level of student attachment at universities

Note: The item “others” includes the participants who informed that they are not linked to one of the previous categories, which may mean, for example, being independent researchers, students from isolated disciplines or not being formally studying.

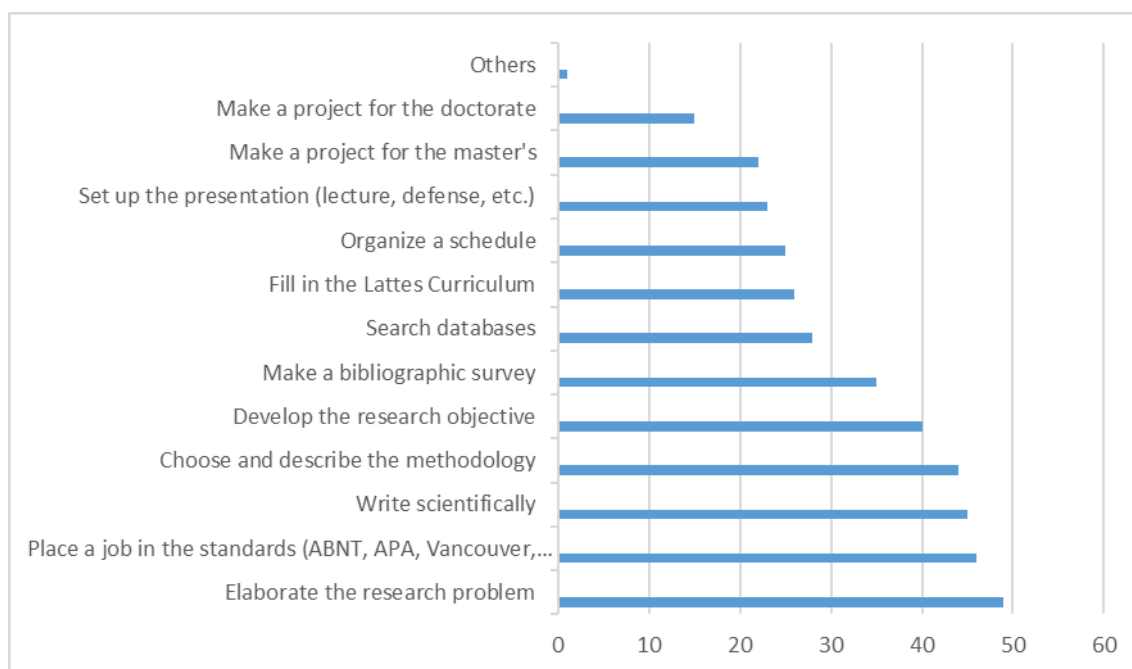
Source: Research data (2019).

Most of the participants are linked to public institutions (78.8%) and 52.9% of the respondents informed that they are scholarship holders, which was expected since the research was applied to the group entitled Scholarship Holders Capes.

4.1 Students' difficulties

In order to map the difficulties encountered by students when carrying out academic work, two questions were asked, one open and one closed.

The closed question provided prior options in which participants were asked to select those difficulties they had already faced. In this question, it was possible to select more than one answer option. Graph 2 shows the situations presented and the number of responses in each one.

Graph 2. Difficulties of students when carrying out academic work

Source: Research data (2019).

The three predominantly mentioned items were those related to the elaboration of the research problem, normalizing the work and writing scientifically. They will be discussed further below, along with qualitative data.

The open question, in a complementary way to the previous one, sought to map the vulnerabilities that students encounter when carrying out their academic work. By offering a free field for participants to write in their own words, it was possible to raise aspects that are not foreseen or are not directly related to what is expected when carrying out work. Thus, by giving participants a voice, they have a more accurate picture of the reality found by these students.

The question asked participants to cite their three main difficulties when doing academic work. As it is an open question, it was necessary to treat the responses qualitatively. Thus, the content was categorized a posteriori based on the grouping of similar responses, generating a table that lists the categories created and the aspects that each of them understands, extracted from the participants' responses. Chart 1 presents these categories in alphabetical order, as well as exemplifying which aspects are contained in each of them.

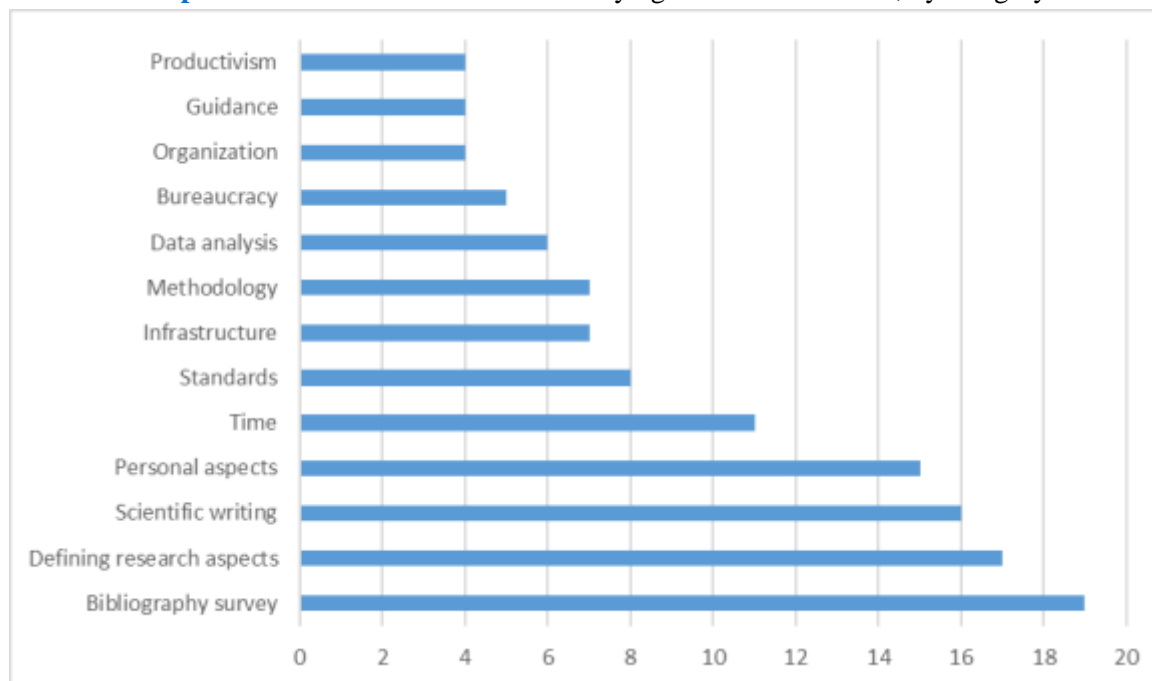
Table 1. Difficulties - categories and aspects framed based on the responses of the participants

CATEGORY	FRAMED ASPECTS
Data analysis	Do bibliometrics, interpret results, analyze and discuss results, list the analyzes
Personal aspects	Focus, psychological pressure factors, financial difficulties, study in parallel with work, creative block, having ideas, motivation, scholarship value, anxiety about the future, tiredness, physical and mental disposition
Bureaucracy	Authorization for data collection in companies and conducting interviews, partnership between institutions, institutional support, difficult access to certain communities for study, excessive credits to fulfill - which reduces the time for research, bureaucracy for going abroad
Defining research aspects	Problem definition, theme, direction, innovation
Scientific writing	Write scientifically, with formal language, in Portuguese or English, writing specific sections of the work such as introduction or conclusion, elaboration of arguments, grammatical correction, care for plagiarism, elaboration of state of the art, translation of articles, articulating different bibliographies
Infrastructure	Outdated library, lack of materials and equipment at the university, lack of financial resources for research materials and necessary equipment, university structure and available resources, laboratory infrastructures
Bibliography survey	Searching for materials, citations, accessing articles on a paid basis, expensive articles, establishing relevant sources
Methodology	Conduct experiments, choose and describe the adopted methodology, collect data
Standarts	Use of standards such as ABNT, APA, among others, as well as their application in text editors such as Word
Organization	Organization of research or work, definition of priorities, account of the readings, organization of content raised, organization of ideas
Guidance	Lack of help from the advisor, dependence on the advisor's endorsement, lack of guidance from an academic professional, establishment of contact with the advisor, availability of the advisor
Productivism	Publication in magazines with Qualis above B1, Post program requirements, obligation to publish in large quantities, obligation to publish in good magazines
Time	Elaboration of a schedule, fulfillment of an agenda, pressure of deadlines, lack of time

Source: Research data (2019).

Based on the categories established in Table 1, it was possible to tabulate the results and verify the quantitative incidence of each of them, raising the aspects in which the students reported having greater difficulty (Graph 3).

Graph 3. Incidence of difficulties in carrying out academic work, by category



Source: Research data (2019).

It is noteworthy that, in both the closed and open questions, with the exception of the bibliography survey, the items where respondents reported having greater difficulties, are related to the definition of aspects of research and scientific writing.

The bibliography survey, which includes searching for materials, accessing articles on a paid basis, expensive articles and establishing relevant sources is one of the difficulties that can be solved when the University Library fulfills one of its most basic missions: providing access to information sources and empower individuals to use them.

It is curious that this is the greatest adversity pointed out by the participants, according to Graph 3, since the education of users focused on the use of information sources, especially in databases, is one of the most common services in University Libraries. This result may have occurred, perhaps, due to the fact that the Libraries are unable to meet the demand of students or even the ignorance of these users that this service is available (due to the lack of disclosure of the library or due to students' lack of interest). Anyway, it is worrying that this difficulty is pointed out by a large number of participants, because it impacts on the performance of all academic work.

Another factor worth mentioning is that the bibliographic survey category includes difficulties in relation to access to paid articles or the price of these materials (according to aspects in Table 1). Brazil is a pioneer in two initiatives that aim to provide access to

scientific information. One of them is the CAPES Journal Portal, which centralizes the availability not only of scientific articles, but of databases itself for the national academic community, rationalizing the use of resources and providing a wide range of materials. The other is a movement with international influence called open access, in which the articles are published without any barrier to their use, with no fees or subscriptions for example. Even so, the difficulty pointed out by the participants reinforces the need to discuss knowledge as a public, social good, linking its distribution to the progress and development of society as a whole, and not linked to commercial or profitable issues.

Regarding the definition of aspects of the research, categorized as the second biggest difficulty based on the responses of the participants, elements such as the definition of the problem, the theme, the direction and innovation are framed. All of these factors are essential in the initial planning of the work and its subsequent execution.

According to Gomides (2002, p. 7), elaborating a research problem “consists of saying in an explicit, clear, understandable and operational way, what is the difficulty we are facing and that we intend to solve”, being a key piece for the development of good academic work. For the author, this action, however, is challenging and complex, and “fear appears in the acceptance or not by peers and the academy about the validity of their work” (GOMIDES, 2002, p. 10).

Scientific writing came in third place in both the closed question (graph 2) and the open question (graph 3). It includes the students' difficulty in adapting to the formal language required by the academy, as well as the care with plagiarism and writing, articulating different bibliographies and arguments.

Writing an academic paper goes beyond instruction on how to write grammatically correctly. It runs through the researcher's ability to articulate different knowledge from different sources, in order to produce a panorama or propose something new. It starts with the survey of sources (also pointed out by the students as a difficulty) or the realization of experiments, until the comprehension of what is at hand, in order, finally, to build a logical reasoning on the studied theme.

The difficulty in writing scientifically, may be related to the fact that, in general, academic standards are not taught during the basic training of students, providing a break when these individuals enter higher education. For Viana and Pieruccini (2019, p. 2), “[...] students have difficulties in synthesizing the knowledge presented in course [...] as well as in understanding the nature of the intellectual work involved in higher education”, which is reflected in academic writing, according to the authors.

Writing, according to Cruz *et al.* (2020), it is an integral and essential part of doing science, as it formalizes, organizes and systematizes knowledge. Regarding the difficulty in adapting to a standard of writing aimed at the academic environment, the authors raise the hypothesis of

Difficulty in promoting teaching and developing skills for the use of scientific writing in the process of training undergraduate and graduate students, whether to build arguments or report evidence produced through scientific communications. (CRUZ *et al.*, 2020, p. 1)

Normalization, in turn, difficulty pointed out in second place as shown in Graph 2 and also placed as a central question in the open responses of the participants (Graph 3), aims to present uniformity to academic work and is generally based on standards established within an area of knowledge or country. In Brazil, the Brazilian Association of Technical Standards (ABNT) establishes the standards for bibliographic and documentary normalization, however, international standards are still used, such as the American Psychological Association (APA) Publication Manual, the Chicago Manual, the standard Vancouver, among others.

Adapting to so many existing standards can cause some awkwardness, especially since many rules are technical, and therefore can make it difficult to assimilate. In addition to this, the fact that, normally, students are not instructed during all their training regarding the use of these standards in an uncomplicated way, needing to resort to self-learning or outsourcing the adequacy to a professional at the time they need to apply them in their academic work.

In general, the main difficulties pointed out by the research participants can be minimized in the offer of methodology courses, in the Undergraduate and Graduate courses, and in the implementation of user education programs, by the University Libraries, with menus that focus on those aspects.

For Sousa and Fujino (2009, p. 18), “the mission of the university, before graduating, is to train minds directed towards research, stimulating the scientific and reflective spirit”. It is in this context that university libraries play an important role in their educational role, as this perspective seems to break with the classic paradigm of the library as a place of bibliographic collections, to highlight its role as a promoter of education or teaching-learning with a focus on solving real problems and building subjects capable of learning to learn and learn about the spaces inherent in the production of science.

We resume what was exposed by Perrotti and Pieruccini (2007) on the need to offer activities aimed at student learning, using multiple approaches that focus on Info education.

For Silva and Cavalcante (2019, p. 4),

In the construction of knowledge through research, through the use of different sources and resources of information, the individual is able to question reality, formulate problems and seek to solve them, using different languages to elaborate, express and express his ideas. (SILVA; CAVALCANTE, 2019, p. 4)

Oliveira and Cranchi (2017, p. 35) emphasize that “the university library can and should be an environment that facilitates academic training in its scientific, technical and humanistic aspects”. Its role must be that of an articulator between teaching and learning with a focus on the formation of subjects.

It is necessary to add all the attributes to the library as a space of knowledge dedicated not only to intellectual, cultural and leisure pursuits, but also a place of reflective, personal and shared practices, aiming at the development of the individual and the community. (OLIVEIRA; CRANCHI, 2017, p. 46)

Another important item was that which appeared in fourth place in Graph 3, which indicates personal aspects as one of the categories that influence the difficulties in carrying out academic work. Although it is not the focus of this study, it draws attention to the psychological, social and emotional aspects that these students are submitted to in higher education, while this also affects their academic production, showing that universities need to pay attention to this factor.

Leal *et al.* (2019, p. 59) demonstrate through their research that

[...] students face emotional problems, financial difficulties, and inadequacy to the academic environment. In addition to affecting academic performance, these challenges are directly or indirectly linked to the development of mental health problems, including depression and suicide.

Of course, it is not something that university libraries are able to handle alone in their list of services or programs, but it does show that multidisciplinary teams are essential for monitoring the student body. Anyway, it is believed that the university library, through its educational role, can provide support for problem solving and mediation among students and the way to solve other items pointed out by the research, so that this can help to contribute to the improvement of some personal aspects presented. It is also worth mentioning the need to prepare professionals working in University Libraries, especially those who work directly in the reference service, and, therefore, are at the forefront, to welcome, inform, train and guide students (MANGAS, 2007).

Chauí (2003, p. 13-14) reflects on what is needed for students in higher education. The author states that the university needs:

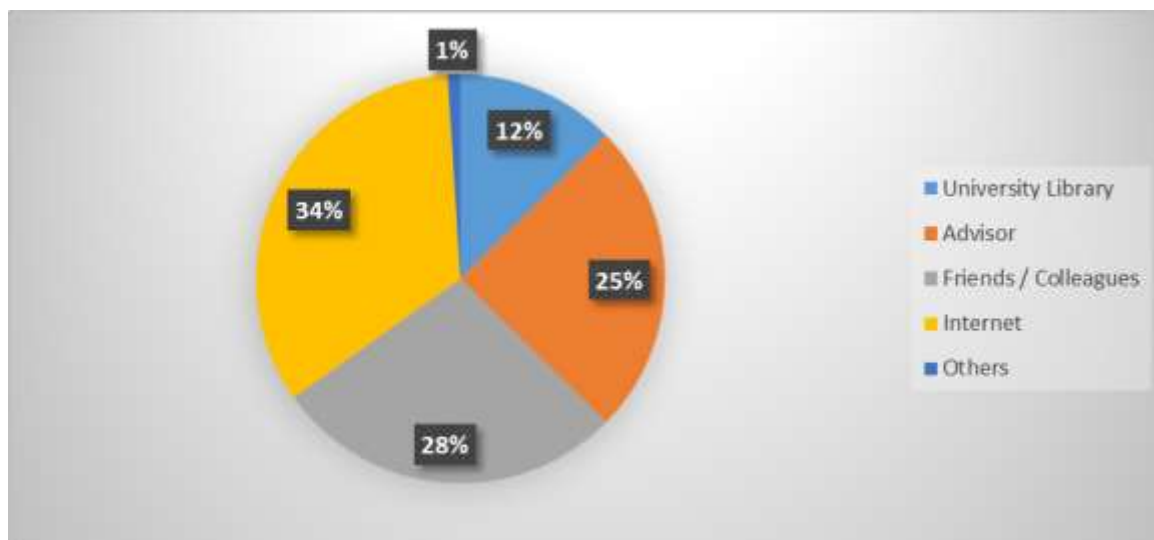
ensure that students are familiar with the classic issues in their field and, at the same time, their contemporary problems and existing research in the country and the world on the most relevant subjects in the field. This requires working conditions: libraries worthy of the name, equipped laboratories, computerization, scholarships for undergraduate students, student accommodation, food and health care, as well as student exchange agreements between the various universities in the country and with foreign universities.

In short, all the conditions pointed out by students as difficulties in carrying out their academic work are relevant. Although the focus of this work was on raising issues related to academic work, it is understood that students are subjects with particularities related to personal, professional and academic life and that these aspects are interrelated with each other and therefore reflect in all spheres of activity of individuals.

4.2 The request for support

After raising the main difficulties of the students, it was asked where they seek help to resolve these issues. Graph 4 shows that most respondents (34%) try to solve their difficulties through the internet.

Graph 4. Places where students seek help to resolve difficulties in carrying out academic work



Source: Research data (2019).

O apoio do orientador e de amigos ou colegas também foi apontado de forma expressiva pelos respondentes. É possível que isso se deva a proximidade das relações interpessoais ou até mesmo em virtude de conhecimentos específicos da própria área do conhecimento, nos quais as pessoas próximas tenham mais facilidade na orientação, resolução de dúvidas e direcionamento dos trabalhos acadêmicos.

Participants who answered the Internet were invited to detail their consultation options in an open question. The most targeted places to seek help were, respectively: Google, forums, mailing lists or virtual groups. Another widely mentioned source was Youtube. In the sense of academic sources, those mentioned were SciHub, CAPES Journal Portal and Google Scholar.

The support of the advisor and friends or colleagues was also expressively mentioned by the respondents. It is possible that this is due to the proximity of interpersonal relationships or even due to specific knowledge in the area of knowledge itself, in which people close to it are easier to guide, resolve doubts and direct academic work.

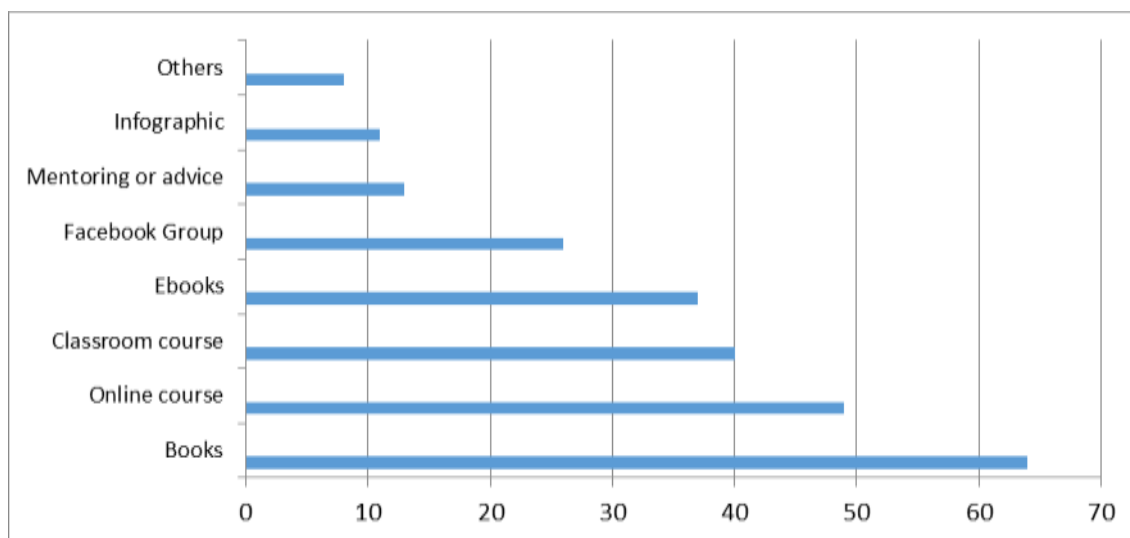
Only 12% of respondents cited the university library, which raises some questions that may be influencing this result, such as, for example, the lack of knowledge on the part of students that the library can help with their difficulties, or even the fact that, perhaps, the library to which respondents have access does not position themselves as educational spaces that promote teaching and learning, and therefore are inaccessible. Anyway, it is understood

that the internet is an agile, fast and easy mechanism to seek help, and, therefore, it is a place that the university library could also constitute itself as an authority.

4.3 Use of information resources

In order to understand what type of material students consider most suitable for their learning, most respondents reported that they prefer books and courses. This question offered a grid of options for respondents to indicate their preference.

Graph 5. Typology of materials preferred by students for learning



Note: In the item others were informed tutorials, podcasts, videos and articles.

Source: Research data (2019).

In order to complement the previous question, students were also offered an optional opportunity to write suggestions for solutions, in the sense of support materials or services aimed at learning by the academic public. In this question, it was preferred to bring as a result a snippet of the participants' own responses. Chart 2 presents some suggestions as written by the respondents, in no order of importance or categorization.

Chart 2. Suggestions for solutions presented by the academic public

Scientific writing course
Online guidance service by an area committee
Yes, graduate seminars that include areas in common
Simplified templates of different formats (monographs, articles, abstracts, etc.)
A YouTube channel
Some preparatory course for the academic environment
Checklist and flows of the type used by systematic review, technique or PICO to create the problem and the prism protocol I believe helps to be clear in disturbing moments. Know what is needed in each item of work. For example, at the time of the review I found 100,000 jobs, but you have an organized and clear strategy on the way, and even if I find answers that condemn your work, I can use it productively.
A transdisciplinary work that brings together mental health professionals in partnership with academic mentoring.
Perhaps a website or app that facilitates the search for authors or citations, e.g. there are books that are very expensive to purchase just for a job, it would be nice to have them available for consultation online at an affordable price.
Psychological monitoring
ABNT practical manual
As I am in the habit of using YouTube, it would be nice to have a channel that talked about this topic in more depth.
I really like E-books of material that I can access to learn more and content in videos.

Source: Research data (2019).

The suggestions listed by the students provide clues about some paths that can be taken to assist in the development of initiatives in order to overcome the academic difficulties pointed out in the research.

It is noteworthy that, both in the responses in Graph 5, as in the suggestions presented in Table 2, the availability of informational or educational resources in electronic or online format is significant. The little involvement of the library when students are looking for help (Graph 4), may be related to the type of assistance that these places are providing and that are not corresponding to the students' preferred formats.

In 1972, Lydia de Queiroz Sambaquy, in predicting the library of the future for the 21st century, advocated that

There will be many and wonderful electronic equipment used to communicate ideas and exchange data and information. Closed circuits of television and telecommunication, for oral contacts and for the transfer of texts and figures, will constitute the marvel of the library and documentary world of tomorrow. (SAMBAQUY, 1972, p. 63)

Later, in 1977, Etelvina Lima, speaking of the library in higher education, mentioned how a change in its paradigm was necessary.

[...] one of the most effective changes that will enable real university reform in Brazil will be the redefinition of the concept of their libraries, in order to transform them into a dynamic instrument of knowledge transfer, very different from the passive institution of our day which, with greater or lesser success, stores and organizes its collections, waiting for a small percentage of customers who seek them to fulfill school obligations - teachers and students. (LIMA, 1977, p. 850)

Logically, university libraries have undergone modernizations in the last 40 years. However, it is necessary to ask whether they are managing to keep up with the most recent vertiginous changes, which have been happening at an accelerated rate mainly because of the internet.

When survey respondents suggest online courses, YouTube channels, a website and mobile apps as materials that could facilitate their learning and therefore assist them in preparing their academic work, they are following the trend of a connected society. Data from the International Telecommunication Union (2019), a specialized agency of the United Nations (UN), point out that at the end of 2018 there were about 3.9 billion people using the internet, which corresponds to 51.2% of the world population.

For Mata and Alacará (2016, p. 3),

the development of activities for the training of users in libraries can occur in various ways, through disciplines, programs, projects, courses, among others, and can be formal and informal, in the form of face-to-face and / or distance learning. Preferably, they are integrated with the curricular activities of the courses, their teaching plans and their pedagogical project, taking place continuously and permanently.

It is emphasized that, in the production of initiatives aimed at promoting the educational role of the university library, dialogue with the different instances and actors of the university, in order to produce something that is not detached from reality, but, supporting the process of teaching-learning of the subjects involved.

5 Final considerations

The present study sought to present the main difficulties of higher education students during their academic work. In addition to the aspects considered more procedural, such as bibliographic survey, scientific writing, definition of research aspects and standardization, the incidence of personal aspects as influencers in this dynamic, such as financial issues, anxiety, psychological factors, also called attention, demotivation, among others.

This work did not intend to make an exhaustive study, but to raise elements that can serve as a starting point for the establishment of educational programs in Brazilian university libraries to meet the reality, and, at the same time, highlight issues that are outside the scope of the libraries, but that deserve attention from universities.

Within the university, it is pertinent to point out the need for a multidisciplinary team to support students' social and psychological issues, which mainly influence mental health.

Regarding University Libraries, some improvements include the provision of courses, training programs and instructional materials, such as manuals and tutorials, based on the difficulties pointed out by the research participants or directed to the local community after conducting a user study. The partnership between the library and the Undergraduate and Graduate courses in the disciplines of methodology can also contribute to solving the difficulties pointed out by the research participants by adding the theoretical and practical knowledge of teachers and librarians.

There is also a need for greater dissemination of the services offered by University Libraries to the academic community, promoting them as a place that helps in solving problems quickly, safely and reliably. For that, it would be interesting to have the support of the university's communication sector, in order to make an organized and comprehensive marketing plan.

It seems pertinent to point out as an opportunity for future research, to make a comparison between the real needs pointed out by students in the data of this research, with the programs and services already existing in university libraries, in order to verify if what these institutions offer is according to what the target audience really needs. Another research opportunity is related to the possibility of identifying how professionals who work in University Libraries are prepared to meet the demands of scientific communication, and more specifically, how they guide or should guide students in carrying out academic work in their schools. several steps.

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