

## **New data on knowledge and application of Information Literacy Framework in higher education libraries: results of a questionnaire survey to Portuguese librarians**

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**Abstract:** This communication reveals data concerning the knowledge and practices of librarians from Portugal on the ACRL Framework on Information Literacy for Higher Education. The study is supported by a literature review on information literacy crossed with the concept of innovation in higher education libraries'. The data are obtained by analysing the results of a questionnaire sent to Portuguese librarians, regarding their knowledge and application of the Framework. Statistical methods and quantitative data were used to describe the librarian's attitudes towards new pedagogical practices involving information literacy. The results show that, based on the Framework, the didactic process can be renewed, constituting itself as a schedule of change and innovation.

**Keywords:** Information literacy; Higher education; Teaching-Learning; ACRL Framework; Librarians; Innovation; Portugal

### **1. Introduction**

In 2016, the ACRL adopts the new Framework for Information Literacy for Higher Education, which opens space for pedagogical changes in education and training in Information Literacy. Information literacy remains a pattern of integrated competencies that contemplate the reflexive discovery of information, the understanding of how information is produced and valued, and the use of information in the ethical and legal creation of new knowledge. However, the new Framework is the transformation of the basics of researching, locating, selecting and using information, into more comprehensive, interconnected, and flexible implementation rather than a set of standards or learning outcomes. Its presentation is structured around a set of conceptual frames that integrate goals and concepts that students must achieve and overcome in order to guarantee the



development of genuine knowledge in a subject or knowledge domain. And each of these frames includes a knowledge practice section used to demonstrate how the domain of the concept leads to its application in new situations and the creation of more knowledge; also includes a set of provisions that work the know-how in the learning process.

For their part, librarians in Portugal have been attentive to the needs of their users, providing training in information literacy, essentially based on the standards already known. How do librarians see this change? Are they able and willing to integrate innovation into their pedagogical practices? To answer these questions will be provided a theoretical approach on the ACRL Framework and on the concept of innovation, which will support the practical study. In this study statistical methods are used on a convenience sample, found in the universe of higher education libraries in Portugal. The aim is to collect the information about the six conceptual frameworks that make up the Framework to (i) evaluate the librarians' understanding of the concepts, knowledge practices and dispositions that comprise it and (ii) verify the level of application of these competencies in the formation of users.

The integration of the Framework into the teaching of librarians will certainly be beneficial and innovative. This is because when incorporated in a flexible way, it adapts to each specific reality, allowing to match the training needs of users in different contexts. It is therefore important to realize to what extent Portuguese librarians understand these gains and are taking advantage of them. These findings are important to find and raise recommendations for best practices in Information Literacy training, namely using the ACRL Framework as a tool to introduce innovation in academic libraries.

## **2. Literature review**

The argument that is defended in this study is that the Framework is a powerful tool of innovation, inspiring change and promoting the improvement of practices, especially at the pedagogical level.

According to Sousa & Monteiro (2014, p. 517), organizational innovation is associated with organizational creativity and is defined as a process aimed at developing and channeling individual creativity, through teams, towards profitable innovations for the organization. It is also called shop-floor innovations; high performance teams; team-based innovation; innovative organizations; innovativeness. Innovation refers to the fields of implementation, production, diffusion, adoption of creations, based mainly on processes – and this in order to remain competitive, promoting change and benefiting the entire organization and its users, and creating value.

Understanding school as an organization, while at the same time perceiving its specificity, we seek a more adequate definition, finding it in a study by Jónsdóttir & MacDonald (2013), which refers to the importance of the

adaptation of schools, through innovation, from a ministerial directive in Iceland. This directive sought to align the curriculum with the view of a "modern citizen as capable of action, creative and innovative, technologically and environmentally literate and entrepreneurial. Such a citizen is responsible, independent and collaborative, able to think and act as a complete person using skills and knowledge from life and school interactively" (p. 273). Thus, using the aforementioned ministerial directive, from 1999, is referred: "Innovation and the utilization of knowledge is about activating student ideas on how to utilize the knowledge and skills in each subject to solve problems, meet needs, or create other goods that make a difference. The purpose is to strengthen student's ethical sense and initiative through creative work where the student is trained in systematic methods to develop his or her ideas from the first glimpse of an idea to the finished product. (Iceland Ministry of Education, *apud* Jónsdóttir & MacDonald, 2013, 273-274). Following the ideas of these authors, the role of "the innovative teacher is social constructivist, an educator who facilitates active learning as opposed to the teacher who 'feeds' the learners with finite knowledge. The teacher's role is crucial for the success of the ideation process of the learners and the development of the idea into a solution (...)" (Jónsdóttir & MacDonald, 2013, 275). This is also related to the school settings, that must be, according to these authors, at the same time, flexible, receptive, encouraging and participatory, in order to promote innovation in education.

In Bolívar (1999, p. 53) words, "innovating is ultimately a way of understanding education and the exercise of teaching, where there is a commitment to do things better, to lead others to practice common actions, to free students from the social conditions in which they are immersed in certain moral values and ideological choices." The author states that without this commitment, innovation in education ends up being limited to superficial changes. That means that education has intrinsically a transformative factor and all those working in the field of education can understand and act for this transformation of the learner.

Farias (2018, p.74-76) says that the action of teaching needs to be innovated, but that does not specifically imply radical changes, but the addition, transformation, and improvement of new strategies. She adds that technology *per se* is not a pedagogical innovation, but it can be said that it contributes as a resource that enables innovation since it can be used for content exploration, research, and performance of other activities that stimulate the learn. Innovation consists of changing the educational practice, with the perspective of promoting a meaningful learning, that allows the use of advanced resources in order to contribute to a differentiated performance of the school, open to new cultures, that happens through the construction of knowledge in a signed partnership between student and teacher, as agents transforming and provoking qualitative changes in the educational system.

For Cobo (2016), the discourse of innovation cannot be limited to the acquisition and intensive use of devices. It also involves conceptualizing equally substantive aspects, such as expanding and connecting what we understand and recognize as knowledge, the value of the creation or the capacity to evaluate these learning through new instruments. In fact, people today have at their disposal virtual courses, digital books, research sites, social networks and many other technological options to innovate educational practices and promote changes in education.

Librarians dedicated to teaching and training should not rest. Rather must be encouraged to understand this environment as an added challenge. More resources, particularly informative resources, should lead us to question how to teach information skills. Currently, the focus has been increased on digital literacy, an important component of this apprenticeship which should undoubtedly be included in pedagogical practices. However, the programmatic content proposals of the ACRL Framework (ACRL, 2016) fit well with a pedagogical innovation. It will be important for librarians not to view the Framework as a threat to the consolidated teaching of information literacy, but rather as an opportunity for more in-depth, transversal and more appropriate training for students in higher education, in order to adequately meet academic requirements, as well as in the possibility of share and promote their reflective discoveries of information, with the support of libraries.

Several studies on innovation in academic libraries have already taken place (Scupola & Nicolajsen, 2010; Jantz, 2012, 2017; Raju, 2014). All converge on a central idea: the role of the academic librarian is fundamental for change and innovation. In fact, whether it is about technology-centered studies and their impact on libraries, organizational structure or leadership, the key to innovation understanding' lies in the vision held by the main actor - the academic librarian. That is why it is so important to understand the librarian's point of view, particularly in adopting a tool such as the Framework.

We all know that it is important to evaluate instruments, both in research in general and in information science, specifically. Information Literacy is no exception. There are a variety of ways to evaluate this concept and its application, but the most common is the assessment of the competences of students or researchers.

Ten years ago Oakleaf & Kaske (2009) and Walsh (2009) mentioned the unavoidable need for an assessment of information literacy in order to understand whether training strategies would be effective. They also reflected on the implications of evaluation, i.e. whether it would be well-conducted and whether there would be practical consequences, such as changing teaching methods, for instance, methodologies, strategies, or objectives, to promote better learning. This means that progress has been made in evaluating the pedagogical resources and tools used in the teaching of Information Literacy and this

evaluation has been consolidated. In fact, some authors have demonstrated the importance of evaluating teaching and learning tools, particularly in Information Literacy (Pellegrini, Estácio, Vitorino, 2016, Spudeit, 2016, Oakleaf & Kaske, 2009 and Walsh, 2009).

With regard to the Framework for Information Literacy in Higher Education, this was discussed extensively within the class of librarians, even before it was finally published. This demonstrates broad scrutiny and prepares practitioners and other stakeholders for a good acceptance of this tool. However, it is not enough that the guidance documents are released to one be satisfied with them. Evaluation is needed after implementation on the ground. Gross, Latham, and Julien (2018) agreed with this premise and show an evaluation of the implementation of the Framework in the USA from the perspective of librarians. The authors conclude that it has an impact on training, helps to better combine information literacy with the performance of the librarian and also highlights the possibilities for cooperation between librarians and teachers.

However, its acceptance is not universal, and its implementation has not been consensual since there have been difficulties adapting to this new way of looking at information literacy. Schulte & Knapp (2017), in a population of health librarians, also sought to know the levels of adoption of this tool. Most respondents have revealed that they are familiar with the Framework, but not everyone is willing to use it, as they do not know it in depth, nor are they well aware of its implications for teaching strategies. At the same time, in New Jersey, also in the USA, another study (Charles, 2017) confirmed this tendency, revealing the lack of preparation for librarians to adopt the Framework, and even preferring not to exempt previous Standards from their training practices.

The presentation of results related to the implementation of the ACRL Framework has indeed been a constant in recent years. Sipila, Miettinen & Tevaniemi (2019) presented their experience at the University of Tampere (Finland), demonstrating the adaptation of the librarians to this new pedagogical tool, as well as the students' response to their learning, which, although initially positive.

Also in a more ambitious project (in a universe of 4000 students), Gammons & Inge (2017) sought to demonstrate the evaluation of levels of information competence and concluded that using the ACRL structure in the assessment improves the formative experience, allowing students greater retention of deeper involvement and creating more opportunities for interaction between students and trainers.

Mohamed (2019) presents in his study results of an implementation project of the Framework, which included evaluation. In this, it is evident that learning in this format has benefited the students with respect to the development of autonomy and critical thinking.

This is also in line with the result of another research paper (Estell, 2019), which is more focused on self-regulated and student-centered learning. In the related experience, the author shows an articulation of the principles expressed by the Framework with that concepts in order to promote lifelong learning. Based on the dispositions and attributes, characteristics, and qualities of the learner, the author recommends the adoption of the Framework in a transversal way, evidencing its potential for apprenticeship.

Aware of this international reality, we feel the need, also in Portugal, to observe the reception of the Framework, since any studies in this field are known.

### **3. Methods**

In order to understand the extent to which the introduction of innovation is being made, namely through the knowledge and implementation of the Framework, the search for indicators is essential. Hence, a survey of librarians will allow us to study this process, and it will be possible to draw conclusions about the ideas, knowledge, commitment and innovation practices of Portuguese librarians, which will reflect, on the other hand, healthy competitiveness and professional satisfaction.

The sharing of these ideas themselves is a collaborative approach, fostering the discovery of the innovative potential of the Framework.

In this study, we chose to distribute a survey to a convenience sample obtained from the universe of the 177 Libraries of Portuguese Higher Education Institutions (registered in the BAD Directory, at <https://www.bad.pt/diretorio>). By reading the results we intend to understand, on the one hand, the extent to which librarians know the concepts of Information Literacy expressed by the Framework and, on the other hand, to what extent this same knowledge is converted into teaching and training to the users of libraries.

The questionnaire was divided into four parts:

- an introduction, to clarify the content of the questionnaire to respondents;
- a question for the characterization of the respondent libraries;
- the core of the survey, with two questions for each of the 6 key areas; and
- an open question in the end, if the respondents wanted to leave some suggestion or opinion.

The guiding questions that librarians respond to are:

A: *"I understand and master these concepts presented by the Framework."*

And

B: *"I apply these concepts when teaching skills in Information Literacy"*

Both questions were applied to each of the frames:

- Authority is Constructed and Contextual
- Information Creation as a Process
- Information has Value
- Research as Inquiry
- Scholarship as a Conversation
- Searching as Strategic Exploration

This Framework intends to involve information professionals in the exploration of concepts, practices, and dispositions around the information. The behaviors that evidence the competencies in information literacy in the academic scope are known as knowledge practices; students' preferences and attitudes about how they learn are considered as dispositions.

Table 2 shows the universe benefitting from the resources of the libraries under study.

Identification	Universe	%	Answers	%
Public University Teaching	68	39,53	15	60
Private University Teaching	27	15,70	3	12
Public Polytechnic Education	49	28,49	5	20
Private Polytechnic Education	25	14,53	1	4
Military and Police Education	2	1,16	0	-
Public University Teaching non-state / Concordata	1	0,58	1	4

**Table 2. University Libraries in Portugal and respondents**

#### 4. Results

The study uses statistical methods of quantitative analysis. Results include the relative frequencies, concerning each of the conceptual frames. We seek to extrapolate, from these, the predisposition to adopt the Framework, perceiving the level of knowledge and application of each of the conceptual axis. The analysis thus describes, in the light of all the issues, the knowledge and application of the Portuguese librarians stated in the survey responses.

Using a Likert scale (1. Strongly disagree...5. Totally agree), the perception about the first dimension, understanding (A) – “I understand and master these concepts presented by the Framework”. As for the application (B) - . I apply these concepts when teaching skills in Information Literacy – another scale was

used (1. Rarely or never; 2. No, but I want to apply; 3. Sometimes; 4. Often; 5. Ever).

There were 25 valid answers to the questionnaire, which represents about 14% of the universe of the recipients. We consider this sample to be adequate, even because it is in line with the universe it represents, in terms of proportionality of the respondent libraries, with a majority of libraries of public university education, followed by public polytechnic education, with the private sector presenting fewer answers, in line with the auscultated universe.

#### **4.1. Authority is Constructed and Contextual**

In this frame, the origin, context, and adequacy of the document for the current need for information is questioned – the focus is the critical examination of evidence (official, credited, certified, etc.).

*Practices of knowledge:* can be seen in identifying the contribution of articles, books and academic works for the enrichment of the disciplines.

*Dispositions to act:* Assume yourself as an information producer and not just as a consumer.

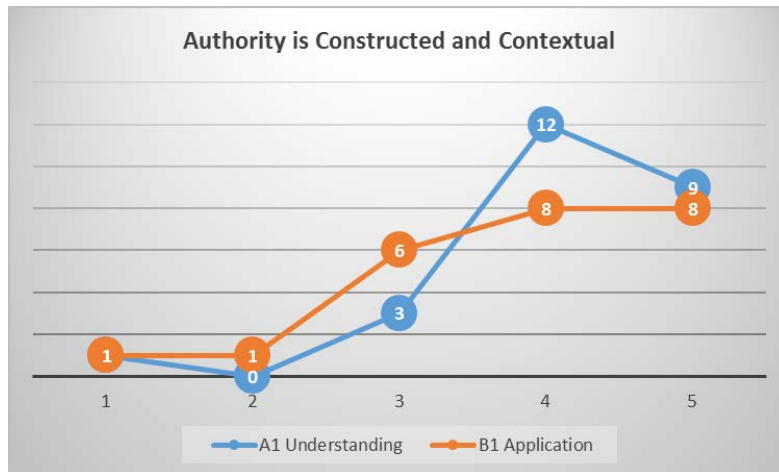
The understanding and application of authority as a concept is one of the learning axes of the Framework. In it, it is clear that whatever source or document to use, it is important to question its origin, context, and appropriateness to the work.

The idea that all sources of information have a purpose and a context is emphasized, and some are more useful than others, depending on the information needed (ACRL, 2016).

To demonstrate mastery over this concept, the student should define different types of authority (thematic knowledge, social position or experience), use different tools and authority indicators to determine the credibility of the sources, and finally recognize that the information can be perceived in a different way according to the format in which it is made available.

The key idea is that information resources reflect the knowledge and credibility of their authors and therefore some skepticism should always be fostered in relation to the found ideas.





**Figure 1. Data on understanding and application on “Authority” frame**

In this conceptual framework, librarians of higher education in Portugal have revealed that they understand and dominate the concept of "Authority, which is constructed and contextual" - with total 21 positive responses, adding the (4)"agree" and (5)"totally agree".

In terms of the application of this frame, the responses of the librarians are totally positive, if we add the answers (3)"Sometimes", (4)"Often" and (5)"Ever". They total 100 percent of the possibilities, confirming that all librarians act in this matter, albeit with a different frequency.

#### 4.2. Information Creation as a Process

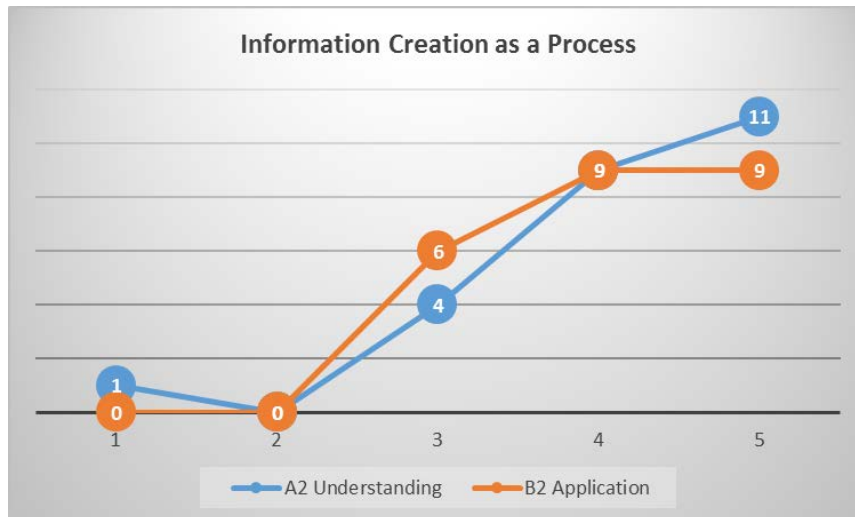
The scope of this frame is the way tangible knowledge is disclosed, so its essential feature is all the underlying process of creation, production, and dissemination of information.

*Practices of knowledge:* To demonstrate the understanding that the research methods that lead to the creation of new knowledge vary according to the need, circumstance, and type of research.

*Dispositions to act:* To value intellectual curiosity in the development of questions and to learn new methods of investigation.

In this conceptual frame, it is relevant to understand that the information contains a message that is shared in various formats. Thus, for the student, it is important to articulate the information capacities and constraints developed through various processes, to identify the impact of creating information on how it will be used and finally to evaluate the format of a publication as to its credibility and quality.

The key idea is for the student to recognize the meaning of the creative process, particularly when researching, selecting, and using information that will become knowledge.



**Figure 2. Data on understanding and application on “Information Creation” frame**

In this question, the understanding of the concept by librarians is consolidated, presenting a total of 20 positive answers.

In terms of its application, "Information creation as a process" seems to be also embedded in information literacy practices since the results point to a total of 25 positive responses. In fact, all the librarians somehow include this content in their teaching practices, Sometimes", (4)"Often" or (5)"Ever".

#### **4.3. Information has Value**

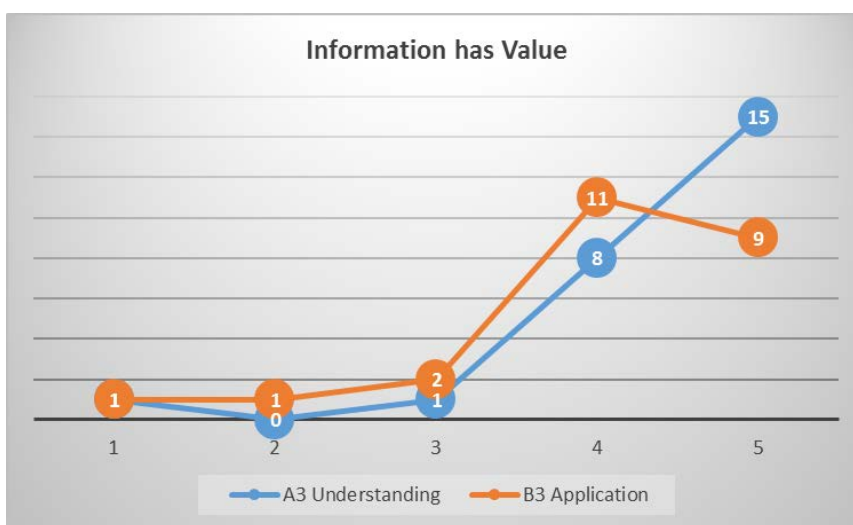
With regard to this frame, the intention is the recognition that the creation of information and all products derived from information require a commitment of time, original thinking and resources that need to be respected by those who seek to use these products.

*Practices of knowledge:* Identifying the authority of information authoring, understanding the elements confer on it that authority.

*Dispositions to act:* Motivate to locate sources of information with accredited authority and recognize that authority can be checked or manifested in unexpected ways.

Within this learning axis, it is very important that the student integrates the understanding of rights and responsibilities when participating in an academic community, realizing that information is an essential asset in the educational process, although depending on several influences.

In this aspect, it is important to cite in detail the original ideas of others, to understand that intellectual property is a legal and social construct and, finally, to articulate and distinguish concepts such as copyright, ethical and legal use of information, payed information, open access or public domain.



**Figure 3. Data on understanding and application on “Value of Information” frame**

The librarians' responses to the understanding of this concept were very positive since 23 of them declare to agree or to agree totally when they are questioned about this.

When the question relates to its application, the results are slightly different, in term of frequency, but 22 declaring that they apply this concept in practice, 20 declaring they do that “often” or “ever”.

#### **4.4. Research as Inquiry**

In the contents of this conceptual framework, it should be emphasized that the understanding that research is iterative depends on increasingly complex questions whose answers develop new questions or lines of research in any area of knowledge.

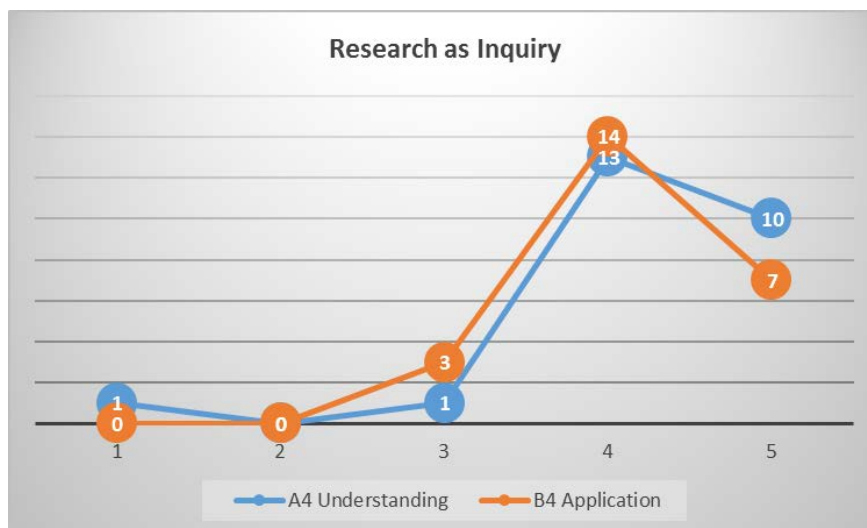
*Practices of knowledge:* Recognize that different creation processes result in the presence of different attributes.

*Dispositions to act:* Be available to locate the authorities of the sources of information that indicate the underlying creation process.

Research is iterative, that is, at the same time and every time it is repeated it is also deepened and depends on complex issues. Hence the debate and the dialogue around knowledge are key ideas because they enable this exercise to return to reflection several times, with a view to gaining greater understanding on the topics.

In this context it is important to look at research in a broad sense, understanding its purpose and scope. It is important for the student to know how to define the research question, to demystify the complex issues in fundamental concepts, and to discuss additional steps for each concept.

It is also recommended that you use various methods of research, according to the needs, circumstances, and type of study.



**Figure 4. Data on understanding and application on “Research as inquiry” frame**

Here again, as far as "Research as inquiry" is concerned, librarians have a very good knowledge of the subject, with a result of 23 positive responses.

As for its application, once again we confirm everyone's concerns in conveying this matter, "Sometimes", "Often" and "Ever". It is evident here that the frequency “Often” gains visibility, with 14 responses.

#### **4.5. Scholarship as a Conversation**

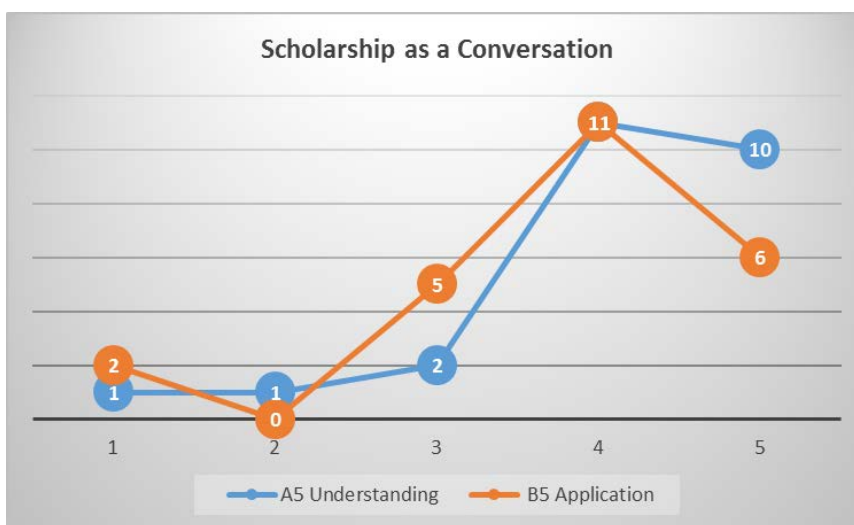
The main idea of this concept is that the production of academic results should be understood as a commitment to the community, ie, academia is permanently involved in new contributions and discoveries, giving the academic environment a space for dialogue where ideas are formulated, debated and argued.

*Knowledge practices:* Demonstrate the importance of combining the need for information and research strategies to identify appropriate research tools.

*Disposition to act:* Demonstrate, through research, that it values persistence, adaptability, and flexibility.

It is understood that the context of knowledge creation results mainly from the community where the learner is inserted since it arises precisely from the dialogue and the interactions. Thus, the notion of community, whether of teachers, researchers or other professionals committed to academic communication, constitutes a platform for dialogue, that is, as a fertile field where new ideas arise.

It is important that the student be able to recognize that new discoveries occur as a result of various perspectives and interpretations. Leveraging skills at this level implies being able to cite the work of others in building more knowledge, recognizing that academic communication occurs at various levels, and being able to critically evaluate the contribution of everyone in a shared information environment.



**Figure 5. Data on understanding and application on “Scholarship as a Conversation” frame**

As far as the ideas contained in this conceptual framework are concerned, librarians generally declare their understanding, with 21 positive responses.

In the teaching practices on this subject, we find consistency, when compared with the other parameters of the survey, in terms of positive answers, since we also obtain in this item, 22 answers that encompass this teaching "Sometimes", "Often" or "Ever".

#### 4.6. Searching as Strategic Exploration

In this context, students are taught to identify, locate, retrieve and use sources of information. Finding information requires a combination of research and discovery.

*Knowledge practices:* articulate objectives and identify copyright, open access, and public domain.

*Dispositions to act:* Take over as a producer for the information market and not just as your consumer.

What this frame reveals is that information research is not linear, it requires mental flexibility for understanding new developments, which arise at every step of the research. Thus, it can be considered that information research is a complex and contextualized experience that affects and is affected by the social, affective and cognitive dimensions of the researcher.

In this sense, it is important for those who seek information in an advanced way, to support their research, which must use various techniques. For example, brainstorming, among other techniques, is important when researching information.

It is also essential to demonstrate the mastery of the use of advanced research techniques, as well as to identify needs and research strategies based, if necessary, on the results of previous research. This means knowing how to interpret what the search returns, including silences and noises



Figure 6. Data on understanding and application on “Searching as Strategic Exploration” frame

Here too, respondent librarians feel comfortable with this fundamental concept: searching as strategic exploration. The positive responses to the comprehension of it total 21. As for the application of these ideas in practice, 22 librarians declare that they "Sometimes", "Often" or "Ever" do so.

Throughout the survey, a consistent response on the various topics is revealed, revealing the lack of knowledge and non-application of the contents of the Framework. Sometimes one or two of them appear in the negative intervals, both as to knowledge and as to the application of the materials. This reality reveals that not all librarians feel comfortable with the Framework and this may indicate that they do not know it or, knowing it, have not adopted it.

## **5. Discussion**

In this study, we aimed to correspond the ACRL recommendations, namely the one that encourages information literacy librarians to be creative and innovative in implementing the Framework in their institution. In fact, the Framework is not intended to be prescriptive but should be used as a guiding document in the development of an institutional instructional program. So, as we sought to know to what extent the Framework has penetrated the pedagogical practices of Portuguese librarians, we have introduced the theme of innovation and we have also sought to understand to what extent librarians are willing to practice it.

It is very important that when they teach, librarians know what is important to teach. As far as information skills are concerned, they should seek to understand what skills, dispositions, and concepts students should develop.

In the domain and proficiency of the various conceptual frameworks, students are able, for example, to create appropriate citations, following a particular citation style, within an understanding of the concepts of authority or source. They are also able to discuss research results, articles or communications that are relevant to their research topic, framed by the concepts of production and evaluation of information. It is hoped that they will be able to use appropriate, quality and reliable sources of information, placing them within the concepts of sharing, dialogue, and interaction of scientific information, which produces and generates new learning and research communities. It is also expected that students will be able to define their research question and research topics, as well as the themes and concepts associated with them, understanding and adapting this use to the ethical and legal assumptions in each context.

The Framework is a flexible system for learning the concepts of information literacy, adaptable to changing environments. It makes sense as a pedagogical tool because it recognizes the mutual influences of participatory and collaborative information environments, assuming that students are also creators of content and knowledge, not exclusively their consumers.

Portuguese librarians, by showing that they are aware of these subjects, show a special predisposition to foster in students all this knowledge and mastery.

The study failed to gauge the deeper knowledge of the other components of the Framework, namely in terms of the domain of the language involved (eg threshold concepts or metacognition) and the dispositions to be fostered in students, as recommended by the guiding document. Nevertheless, the discussion of these data reveals the importance of understanding the purposes, contents and teaching methods of information literacy.

The study was focused on a tool for teaching information literacy - the ACRL Framework. It is important to understand how the theoretical domain of techniques and methods are necessarily linked to pedagogical practices and how these can be innovative from exactly the new tools. For Cobo (2016), innovation in education must be explored through the adoption of multiple techniques and methodologies that recognize, value and make visible the apprenticeship, through learning and discoveries (formal or informal, analog or digital, individual or collective). In other words, the didactic process can be renewed, constituting itself as a schedule of change and innovation. The Framework, based on the proposals that emanate, allows librarians to assume the role of innovative trainers, to be the specialists who advise and stimulate, and who also potentiate the change in the forms of learning. At the same time, it functions as a piloting strategy that assists librarians in their pedagogical tasks, because it allows them to use a regulatory guide, without losing the autonomy and flexibility in their didactic work.

## **6. Conclusions**

The Framework presents itself as a flexible structure with integrated and interconnected concepts to promote the teaching of information skills in higher education institutions. Not being prescriptive, but rather guiding, it leaves room for its top users - instructional program librarians - to be creative in their application. This encourages reflection, while at the same time making it possible to tailor each university to the best way to teach students how to deal with information, both in the global academic context and in the context of specific disciplines.

This study is part of a more comprehensive project where we intend to measure the levels of penetration of information literacy in higher education. These analyzes are useful for verifying the stages of knowledge in institutions and the impact of this knowledge at the national level. It is also possible to obtain some indications and suggestions for future procedures with the objective of improving future actions, monitoring the evolution resulting from possible educational interventions within information literacy, with the application of the Framework and as a way of giving visibility to this didactic tool.



Studies such as this one, with the answers of several librarians of the same country, are practices to be deployed in order to analyse best practices and carry out improvements at a national level. This work is in line with what Hampden-Turner (2009, p. 177) states: "On rare occasions, the earth's peoples have witnessed brief eras of intense innovation and creativity, yet these eras balance on a knife-edge, besieged by people made anxious by diversity, by the tolerance and by the seeming chaos. A key to understand may lie in the concept of soft power, the power to illuminate, entertain, educate and elicit innovation to others, so that a microcosm of the world's most enterprising people beat a path to your door, attracted by the spirit of discovery (...)"

Librarians, through their pedagogical practices, can also be these lights of innovation in higher education.

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