The gender and LGBTQ perspectives in library and information science: A case study at the University of Barcelona

Anna Villarroya [a], Juan-José Boté-Vericad [b,*]

[a] Department d'Economia & Centre de Recerca en Informació, Comunicació i Cultura (CRICC), Facultat d'Informació i Mitjans Audiovisuals, Universitat de Barcelona, Spain
[b] Departament de Biblioteconomia, Documentació i Comunicació Audiovisual & Centre de Recerca en Informació, Comunicació i Cultura (CRICC). Facultat d'Informació i Mitjans Audiovisuals, Universitat de Barcelona, Spain

ABSTRACT

Disregarding gender and LGBTQ perspectives at the undergraduate level perpetuates stereotypes and biases that jeopardize gender equality in society. Building on empirical evidence collected by an action-research project at the Faculty of Information and Audiovisual Media at the University of Barcelona (Spain), this article provides a diagnosis of how teachers and students perceive and value gender and LGBTQ perspectives. Using a multi-method approach (focus group and field journals), this research identified a generalized interest in the incorporation of a gender perspective, although significant barriers are found when carrying it out. While teachers place more emphasis on issues of lack of training and institutional recognition, students value the incorporation of the gender and LGBTQ perspectives yet still observe important limitations. The research also evidences the opportunity of applying action-research projects in bringing together collective reflection and action, as well as the advantages of combining different qualitative methods.

1. Introduction

"*Reflection on how gender ingredients are, or are not, part of the meta- and micro-stories conveyed by the higher education curriculum may offer important clues about what type of gendered knowledge school delivers: legitimate, marginal, or absent.*" (Grünberg, 2011, p. 7.)

This reflection has moved forcefully up the international agenda over the past few years. In 2022, Times Higher Education (THE) and the UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) stated that "reviewing teaching content to remove stereotypes and biases and ensure that there is a representation of women is a crucial avenue towards gender equality" (Times Higher Education & the UNESCO International Institute of Higher Education in Latin America and the Caribbean IESALC, 2022). This statement places universities across the globe as key actors in society to encourage changes in this area. The Catalan university system agenda and, particularly at the University of Barcelona (UB), which passed its *III Equality Plan* in 2020, has set up the mandate to mainstream gender into education. Within this framework, in May 2020 the Faculty of Information and Audiovisual Media (FIMA) approved its *Action Plan on Gender Equality*, which includes gender perspectives in university

teaching as one of the main strategies to be applied in the next two years.

1.1. Problem statement

At a time when there is a pressing need to apply gender and LGBTQ perspectives in undergraduate studies (Coll-Planas, Verge, Prieto, & Caballé, 2018; European Commission, 2021), few studies have been conducted concerning the related knowledge and perceptions of the two main stakeholders, namely students and university professors. In this context, the field of Library and Information Science (LIS) studies is especially relevant since it concerns the training of future professionals in the information field, who will have a key role in shaping gender norms and challenging the existing restrictive expectations made of women, gender diverse and LGBTQ people. This perspective is important not only in regard to their careers but also in supporting their role as informed citizens in a participatory democracy.

The aim of this study is to provide a baseline understanding by gauging students' and teachers' experiences and positions towards the integration of gender and LGBTQ perspectives in LIS studies, along with the factors that might influence their levels of comfort and confidence in applying them.

* Corresponding author.
 E-mail address: juanjo.botev@ub.edu (J.-J. Boté-Vericad).

Given the significance of the gender and LGBTQ perspective for coping with daily life, concerning especially to young women, gender diverse and LGBTQ people, and the relative lack of research on this issue, this study contributes to the existing literature by answering the following questions:

- What is the level of knowledge on gender and LGBTQ issues among LIS students and university professors?
- What are the advantages, resistances, and challenges in integrating them in teaching and curricula?

For the purposes of this study, gender is understood as socially constructed roles, behaviours, activities, and attributions that a specific society considers as belonging to women or men. While biological sex is determined by genetic and anatomical characteristics, gender is an acquired and learned identity that varies widely intra- and inter-culturally. LGBTQ is an acronym that collectively designates lesbians (L), gays (G), bisexuals (B), transsexuals (T), and queer (Q), including by means of the + symbol any remaining identity between all these or nowhere. Both definitions come from the glossary in the *III Equality Plan* aimed at mainstreaming gender and diversity policies at the University of Barcelona. With a main focus on gender inequalities, the *III Equality Plan* includes a new axis, "Diversity and intersectionality with gender," aimed at seeking attention to other diversities, wholly or partly confluent or related to gender, and giving voice and visibility to the problems and the reality of LGBTQ people. The empirical analysis of this study builds on a participatory-action-research project and uses a multimethod qualitative research strategy.

2. Literature review

2.1. Integrating the gender and LGBTQ dimensions in university teaching

"Integrating the gender dimension in education refers to fostering gender knowledge in all areas" (Palmén et al., 2020, p. 2). Within the university environment and, specifically, in teaching undergraduate courses, integrating the gender perspective or gender mainstreaming is a transversal strategy that implies that the nature and implications of gender are "'incorporated in the curriculum of all the subjects, avoiding a separate treatment as a specific problem within the subjects" (Verge & Cabruja, 2017, p. 7).

Since the point of view of the design of courses, the application of the perspective depends on the variety of tasks that are carried out during its teaching (Mora and Pujal Llombart, 2009; Verge, Ferrer-Fons, & González, 2018) as for example:

- The *design of the course* which considers the gender perspective in the definition of competencies, content, and the training activities designed for their achievement. Applying a gender perspective to competencies means wondering to what extent competency design helps to mitigate or sustain sexism. Encompassing women's perspectives, experiences and identifying their contributions to course content, for example, allows students to raise awareness and sensitivity, and pinpoint and discuss the problems of existing gendered norms and roles, in an environment that empowers female students by defying gender stereotypes.
- The *development of the content* of teaching units and/or blocks; that is, the type of examples used, the models and theories that explain the phenomena, the language, the forms of evaluation, and the sources of information used (considering the scientific output of women and men).
- The *way of relating to students*, such as the attention given to them, the composition of working groups, the observation of who usually takes notes in these teams, and the use of tutoring sessions.

Despite the benefits of adopting gender mainstreaming in enhancing

equality, it is a long-term strategy that needs a supportive organizational climate to be effective. Verdonk et al. (2008, p. e194) distinguish three levels of key factors in the process of gender mainstreaming: (1) the policy level, focused on political support and widespread communication of this support; (2) the organizational level that includes gender-specific curricula (e.g., problem-based learning courses, interdisciplinary curricula, and procedures for curriculum development and evaluations), assistance from the educational institution and course organizers, and communication infrastructure for school units at all levels; and (3) the faculty's openness towards change in general and towards feminist influences in particular.

Recent years have seen new developments based on the need for equality policies in universities to adopt an intersectional approach (Mehra, 2014, p. 187) and a broad understanding of the sex/gender system that includes LGBTQ-phobic violence and discrimination (Coll-Planas et al., 2018, p. 5-6). Some universities have addressed some of these issues by developing, for example, LGBTQ inclusive approaches into the higher education curriculum (Coll-Planas et al., 2018; Petrey, 2019). This is the case at the University of Birmingham, which in 2016 developed a cross disciplinary guide to embedding LGBTQ inclusivity in higher and further education (Ward & Gale, 2016). Drawing on a literature review, Ward and Gale (2016) developed a model for the LGBTQ-inclusive curriculum (see Table 1) to be applied at the University of Birmingham which consists of three domains of inclusivity (Language, Content and Role Models) and three levels of inclusivity (Awareness, Additive and Transformative).

Similarly, in the development of *Law 11/2014 for guaranteeing the rights of lesbian, gay, bisexual, transgender and intersex people and for eradicating homophobia, biphobia and transphobia*, the Catalan government commissioned a "guide for incorporating sexual and gender diversity in Catalan universities" (Coll-Planas et al., 2018), that includes teaching as one of the main areas of action. Specifically, it includes a systematized set of measures aimed at incorporating the LGBTQ perspective into university studies: Transforming higher education knowledge through LGBTQ perspectives and emerging topics; explaining the LGBTQ perspective in official reports, teaching guides and study programs at all levels; including intersectionality in curriculums; making visible the stories of LGBTQ people in the classroom; and establishing specific training on LGBTQ topics and anti-LGBTQ-phobia for tutors and group tutors. It also refers to the promotion of studies on LGBTQ, sexuality, feminism, queer theory, performance, transgender, masculinity and borders, as well as to increasing the available resources on LGBTQ topics and the support given to inclusive teaching.

Table 1
The Ward-Gale model for LGBTQ inclusivity in higher education.

	Language	Role models	Curriculum content
Increasing awareness	Avoiding abusive and discriminatory language	Signposting to LGBTQ organizations and events	Basic acknowledgement of gender and sexual diversity
Additive approaches*	Avoiding heteronormative and cis-normative language	Access to mentors for LGBTQ-identified students	Inclusion of topics, themes and readings about LGBTQ identities
Transformative practice**	Critical engagement with queer/trans inclusive language	Role models and allies in the teaching and learning environment	Critical approaches to pedagogy, supporting social engagement and action/inclusive professional practice

Notes: * Additive approaches more actively seek to make gender and sexual diversity visible within the culture of higher education. ** Transformative measures are proactive measures to ensure that the learning and teaching environment reflects gender and sexual diversity and provides spaces in which students are able to become involved in engaged social action.
Source: Ward & Gale (2016).

It follows from this that the incorporation of gender and LGBTQ perspectives as a transversal competence in university teaching provides an ethical orientation in the future professional activities of graduate students and greater sensitivity in their relations with other people and in front of the discriminatory structures that exist in society. In short, it contributes to the construction of personal identity, the development of thought and decision-making (Bas-Peña, Pérez-de-Guzmán Puya, & Vargas-Vergara, 2014).

2.2. Gender and LGBTQ issues in LIS education and professions

Research within the field of LIS studies has been conducted on a wide variety of topics over the years. It was not until recently that some studies addressed different research topics related to gender and LGBTQ issues in LIS education and professions. Most of these studies have explored gender differences in information literacy, information seeking skills (Barahmand, Nakhoda, Fahimnia, & Nazari, 2019; Pinto, Sales, & Fernández-Pascual, 2019; Taylor & Dalal, 2017), in the use of library resources (Khan, Anbareen, Idrees, & Saeed, 2017; Kim, 2010), but also have focused on gendered preferred modes of soft skills learning among professionals (Ahmad, Ameen, & Ullah, 2017), participation of women researchers in the area of LIS (Gul, Shah, Hamade, Mushtaq, & Koul, 2016), integration of women in retrieval languages (Rodríguez Bravo, 2007), biases in indexing in women's studies (Gerhard, Jacobson, & Williamson, 1993; Jahnke, Tanaka, & Palazzolo, 2022), status and preparedness of LIS professionals to manage gender-related issues in libraries (Khan et al., 2017), as well as gender stratification within the library workforce (Bergman, 2005; DeLong, 2013; Hildenbrand, 1999) and e-specialities (Bergman, 2005), among others. As a result of finding significant differences between genders, some studies have raised questions concerning the appropriateness of current information literacy instruction (Taylor & Dalal, 2017, p. 105) and supported the incorporation of the gender perspective into the classroom (Pinto et al., 2019; Taylor & Dalal, 2017). Other studies have underlined the ethical impacts that assumptions about what constitutes gender can have on "management practices (hiring, discrimination, etc.), information organization practices (catalogers' judgement; classificatory structure), and programming and public services" (Fox, 2014, p. 244), making room for new fields of research aimed at giving visibility to a wider variety of gender identities beyond the binary framework (Fox, 2014; Hobart, 2022).

With the same aim of reflecting on current realities, a recent body of LIS literature has focused on sexual diversity issues and, particularly, on the needs of the LGBTQ community. With a focus on academic libraries, Lupien (2007) created a survey addressed to students and faculty in LGBTQ Sexual Diversity classes in several Canadian universities to understand their usage and satisfaction with collections and services in their libraries. The results showed that 38.5% of the respondents had asked LGBTQ related reference questions of library staff. Respondents perceived that some training might be needed on LGBTQ resources. Williams and Deyoe (2015) explored the extent to which academic libraries supporting teacher education and library science programs collect LGBTQ youth literature. They found that many libraries had few or no holdings of recently published LGBTQ-themed youth literature. With a focus on public high school libraries in Ohio state in the United States, Garry (2015, p. 73) suggested that "school libraries tended to have significantly fewer LGBTQ-themed books than titles with other kinds of controversial content". She also found that "certain school-based factors such as high enrolment, racial diversity, liberal-leaning community locations; and presence of certified school librarians, were present in schools with more inclusive LGBTQ collections" (Garry, p. 73). Drawing on a literature review, Pierson (2017) examined the obstacles to access and information for LGBTQ users and potential users of different types of libraries. The low collecting levels of LGBTQ-themed materials was identified as one of the obstacles having an impact on teacher and librarian education. Pierson also found that formally trained

librarians are better educated in access, equity, and inclusion and thus, are better equipped to develop equitable collections. More recently, Siegel and colleagues (2020) have investigated the knowledge, attitudes, and experiences of United States' main stakeholders within the library system in responding to LGBTQ information needs. According to Siegel et al. (2020), "many librarians recognize that they need more training, such as on LGBTQ terminology and culture, and information resources, and often have a critical recognition of their own latent biases, which may help them to better address information needs" (p. 139).

Some studies have explicitly focused on how LIS education has embraced diversity. Drawing from studies of diversity in LIS education and professions, Jaeger et al. (2011, p. 166) argued that the field needs to incorporate a broader, more inclusive understanding of diversity for the continuing relevance of the field and the information professions. For the author, it is a matter not only of creating a more diverse profession but also of ensuring all professionals are ready to engage in inclusive practices. Thus, it is important that LIS programs include diversity issues in the course description and address racial and ethnic diversity, but also include other populations, the socio-economically and geographically disadvantaged, older adults, persons with disabilities, and LGBTQ individuals, among others. Fox (2014), for example, claims the incorporation of epistemology using essential questions that provide context in learning that can inform gender-related ethical dilemmas students will encounter in professional practice. Documenting key resources integrated into LIS education, Tang et al. (2017) promote teaching diversity and inclusion in the LIS curriculum. Other studies have focused on LIS instructors' attitudes and practices on diversity integration in the LIS curriculum. Using an anonymous online questionnaire, Mehra and colleagues (2011) focused on two topics: (1) how LIS instructors think diversity should be represented and (2) what techniques they believe work well in online environments. Other studies have focused on the intersection of multiple identities and subjectivities such as race, age, gender, parental status, sexuality, class, and, specifically, on pedagogical approaches for lasting impact. Villa-Nicholas (2018) went a step further and argued that moving into an advanced understanding of race, racism, gender, sexuality, class, and ability, which is critical in improving the field of LIS and creating egalitarian library spaces, requires (1) teaching critical theories alongside traditional LIS texts, (2) using systems of assessment for cultural competencies and analysis, and (3) classroom activities that implement metacognitive change. For the author, "these approaches in the LIS classroom can demonstrably move LIS students into a deeper critical analysis of power in libraries that will be applied throughout their careers" (Villa-Nicholas, 2018, p. 121).

2.3. Participatory action research

Despite the existence of different definitions (Ebbutt, 1983; Elliott, 2000; Kemmis & McTaggart, 1987; McTaggart, 1991, among others), participatory action research is characterized by the following components: (1) participatory (in this case with students and teachers at the undergraduate level committed to educational change and innovation), (2) reflective (which starts from self-criticism and reflection), (3) practical (in addition to the theoretical results that can be derived from the method, it aims to achieve improvements during the research process as well as once completed), (4) collaborative (people who participate establish a relationship between equals in the contribution to research) and (5) transformative (it involves the transformation and improvement of an educational and/or social reality). In this sense, participatory action research is a methodological strategy that serves for action and social transformation through research (Alvarado, 2008; Ander-Egg, 2003; Colmenares, 2012).

Drawing on Chevalier and Buckles's (2019) work, participatory-action-research projects generally begin with a "problem awareness phase", in which researchers and participants "unfreeze a situation through fact-finding and diagnostic thinking" to then get to "decisions

regarding immediate steps lead to a phase of experimentation with transformative action". Thus, participants learn progressively throughout the process based on the premise that the best way to understand a situation is to try to change it. In contrast to other research methods, participatory-action research blurs the line between the researcher and the researched until the researched become partners by being actively involved in the whole research process (Baum, Mac-Dougall, & Smith, 2006).

3. Research design and methodology

The empirical analysis was built on a participatory-action-research project undertaken at the Faculty of Information and Audiovisual Media (FIMA) at the University of Barcelona in Catalonia: *Gender Perspective in Information and Media Studies (GENDIMS) project: analysis and proposal.* It is a pioneering initiative in LIS and audiovisual communication studies at the Spanish state level. This methodological option was particularly appropriate in this project because it gave a voice to the research participants to understand their own needs, demands and difficulties (related to the object of the research), share them and propose lines of action to address these needs.

The research had a clear ethnographic focus that included the participants throughout the process. This ethnographic approach combined two different qualitative techniques, such as focus groups and field diaries (see Fig. 1), to contribute to a better understanding of the research problem (Creswell, 2015, p. 3). As argued by some scholars, using a combination of various qualitative methods provides different angles and nuances (Mik-Meyer, 2020), which facilitates a deeper understanding of the complexity of the issue being studied and contributes to the quality of the research.

As it was a one-year project, the precepts of short-term ethnography (Pink & Morgan, 2013) were followed, which allowed the research team to delve into the research questions and objects in periods of time shorter than traditional ethnography.

3.1. Sample selection and data gathering

An extensive amount of empirical material was collected based on four focus groups: two with professors and two with students. Each focus group was composed of six to eight people and covered between six and eight subjects of the bachelor's degree (Table 2). Subjects were selected considering various criteria: course (from first to fourth grade), semester (first or second), topics (long tradition in the field or innovative), and

Table 2
Sample of the focus groups.

Focus Group 1 Professors			Focus Group 2 Professors		
Gender	Age	Code	Gender	Age	Code
Female	54	FG1_IDPD1	Female	54	FG2_IDPD1
Female	61	FG1_IDPD2	Male	54	FG2_IDPH2
Male	61	FG1_IDPH3	Male	56	FG2_IDPH3
Female	61	FG1_IDPD4	Male	54	FG2_IDPH4
Male	58	FG1_IDPH5	Female	52	FG2_IDPD5
Male	53	FG1_IDPH6	Female	57	FG2_IDPD6
Focus Group 1 Students			Focus Group 2 Students		
Gender	Age	Code	Gender	Age	Code
Female	23	FG1_IDED1	Female	20	FG2_IDED1
Male	22	FG1_IDEH2	Female	24	FG2_IDED2
Female	20	FG1_IDED3	Male	25	FG2_IDEH3
Female	24	FG1_IDED4	Female	21	FG2_IDED4
Female	23	FG1_IDED5	Female	38	FG2_IDED5
Female	21	FG1_IDED6	Female	23	FG2_IDED6
Male	22	FG1_IDEH7			
Female	23	FG1_IDED8			

the nature of the contents (more theoretical or more practical), among others. The researchers ensured that the composition of groups (students and teachers) was gender diverse. Focus groups were conducted between May and October of 2021. Focus groups were only held one time with each group of participants.

Based on research aims and related literature, different instruments were designed for students and teachers, but both were structured in the same three blocks: a) knowledge; b) experiences; and c) proposals, challenges, advantages, disadvantages and/or difficulties (see Appendix A: Supplementary material for more detail).

The first part of the focus group with students began with a participatory dynamic activity to create a friendly environment among the participants. Next, the three blocks were introduced. The first few questions were related to the "knowledge" block, intended to explore participants' understanding of gender and LGBTQ perspectives. This was followed by the main questions related to the second block which sought to delve into the experience of participants regarding the incorporation of the gender and LGBTQ perspectives in the faculty. In this block, participants were asked whether they had worked on the gender and LGBTQ perspectives in some subjects, indicating what they had worked on and how they had worked. They were also asked if they had worked on this perspective by themselves, for example, in the activities of the
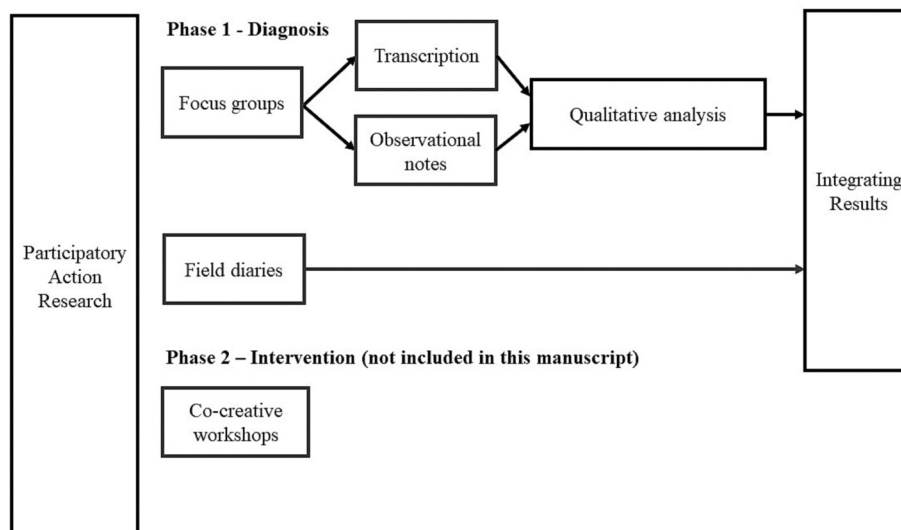
Fig. 1. Participatory action research.

courses, in the Bachelor thesis, in the composition and organization of working groups, and how they did it (for example, who decided the roles in the working groups and how they were organized). The last part addressed the perception of the participants regarding the incorporation of the gender and LGBTQ perspectives, highlighting challenges, advantages, and disadvantages.

The groups of teachers also followed the same three blocks: First, the "knowledge" block, which sought to explore familiarity with the theme. Specifically, participants were asked about the meaning and implications of the gender and LGBTQ perspectives, if they had received any type of training on these perspectives, if it was an area of concern, etc. The second block delved into the experience of participants regarding the incorporation of the gender and LGBTQ perspectives in the subjects themselves. For instance, they were asked to explain how they had incorporated the gender perspective and in which aspects they focused in case they did or to explain the difficulties they found if they did not incorporate it. Other specific elements were also explored, such as the use of inclusive language in the classroom, the selection of the subject's bibliography, the citation style, participatory methodologies, the formation of working groups of the students and assessment methods, among others. The third block explored the position of participants regarding the incorporation of the gender and LGBTQ perspectives in teaching itself, highlighting challenges, advantages and disadvantages, and the detection of some good practices in the faculty.

The methodologic guide, however, was a rather flexible document, with questions that evolved over time. Focus groups lasted between 60 and 90 minutes. A total of six hours of interviews were voice recorded with the written permission of participants. The files were then transcribed verbatim into Microsoft Word, with a total of 160 pages of text. All focus groups were conducted in classrooms. It is important to mention that the University of Barcelona ethics committee approved the study.

Focus groups were complemented by field diaries (Bryant, 2009; Coscioni, 2017; Fort, 2022). Focus groups were performed by two researchers; while one acted as moderator, the other took observational notes. The moderator had the function of mediating, guiding, and stimulating the discussion among participants. The moderator ensured that all participants took part in the discussion while keeping participants focused on the topic, and the moderator facilitated a relaxed atmosphere within the group, aimed at encouraging the sharing of different points of view, opinions, or perceptions on the subject. The other researcher, without intervening in the session, took notes of the opinions that were expressed, making a synthesis that would serve to support the analysis to be done. Both researchers also recorded, as much as possible, what was perceived to be relevant to the research project. These field diaries were created just after the session, so that there is a record that can be used later in the analysis and writing process.

3.2. Data analysis

Qualitative analysis software Atlas.ti.9.1.7 was used for data analysis, which facilitated the development of descriptive and interpretive hierarchies through a system of nodes that represent themes, concepts, ideas, opinions, or experiences. The primary data was the information provided by students and teachers in the focus group. For this, two phases of analysis were carried out: in the first phase, the literal and descriptive meanings were compiled and codified and, in the second, the inductive and interpretative segment of the analysis was completed. In this second inductive phase, data was explored following the defining components of grounded theory practice, established by Charmaz (2006, p. 5) and based on Glaser and Strauss's (1967)' work:

- simultaneous involvement in data collection and analysis,
- analytic categories emerged from data, not from preconceived logically deduced hypotheses,

- a constant comparative method was used, which involves making comparisons during each stage of the analysis,
- memo-writing was used in order to define and elaborate categories, specify their properties, and define relationships between categories and identify gaps,
- sampling geared towards theory construction, not to be representative of the population,
- a literature review was conducted after developing an independent analysis, and
- each step of data collection allowed advancing theory development.

Transcripts went through two coding phases: the first served to identify preliminary categories, and the second, to organize and regroup them. A total of 30 codes were created as preliminary categories in the first phase. These codes were grouped into a final 13 categories (Table 3).

The analysis procedure was based on inductive coding, letting the categories emerge from reading the transcripts. Similar parts of text were grouped into categories (Braun & Clarke, 2006; Mayring, 2000). The categorized themes were developed based on the authors' understanding of the big picture of research on women and gender studies. As a result, theory was originated and developed according to this field of study and emerged from the empirical data obtained from it (González-Teruel & Abad-García, 2012, p. 31).

This information was complemented by personal reflections collected in field diaries that served to follow-up the qualitative analysis and improve the analysis of data. These data were useful for understanding the relationship among participants and their roles in the activities.

4. Findings

4.1. Level of understanding about gender and LGBTQ issues among LIS students and university professors

A general analysis of the data allowed the researchers to observe that practically all individuals who participated in the focus groups had a

Table 3
Categories and subcategories identified through the codification.

Categories	Subcategories
Knowledge and incorporation	Definition
	Specific training
	Knowledge
	Ignorance
	Gen_Incorporated_Changes
	Interest_incorporation
	No_Incorporation
Experiences	Examples_of_others
	Experiences
	Negative_Experiences
	Positive_Experiences
Features, difficulties and proposals	Shares (for incorporation)
	Attributes of courses/teachers
	Inconveniences / Difficulties
	Proposals / Challenges
	Advantages
Gender roles	Role_Male
	Role_Female
Intergenerational	Intergenerational
Classroom groups	Classroom groups
Inclusive toilets	Inclusive toilets
Comments	Comments_student-professor
	Comments_professor-student
Policies	Policies
Participation	Participating courses
	Participating grades/studies
Inclusive language	Inclusive language
Explicit LGBTQ	Explicit LGBTQ
Bibliography	Bibliography

general idea about what the "gender perspective" is, mainly linked to feminist ideals and the visibility of women in different spheres of life, both public and private. Specifically, some participants referred to the "need to balance the authorship of references and avoid gender discrimination when providing examples in class." In relation to the authorship of references, one of the participants stated:

"In my case, I must admit that I have never thought about this, I recommend the textbooks that I think are relevant regardless of whether they are written by men or by women. In fact, now, I would not be able to say if there is a gender balance in the bibliography of my subjects, so it is something I should analyze in the future." (Information Science professor, FG2_IDPD1).

However, specific conflicts and doubts were observed when it comes to expressing what is understood and how the gender dimension is integrated into teaching, whether in the student-student relationship, student-teacher-student relationship or within the subjects' participants.

Although almost all participants had heard the term before, different views were observed between profiles (teachers and students). Results revealed a greater awareness of the gender and LGBTQ perspectives among the student body. In some cases, students demonstrated specific knowledge, discussing key concepts such as 'hegemonic masculinities' or 'intersectionality', among others. Their understanding comes primarily from personal experiences, including first-person experiences of discrimination and violence, rather than from formal education. In this respect, one of the students emphasized that, despite the University's effort to introduce the gender perspective, throughout the four years of undergraduate studies:

"There have not been too many subjects with this perspective" (Information Science student, FG2_IDED4).

Regarding teaching staff, results show greater knowledge and involvement on the part of the younger teaching staff. A few participants stated that they had no knowledge or experience in this regard. In relation to this point, one of the professors remarked:

"I haven't received any particular training and read about the gender perspective in teaching" (Information Science professor, FG1_IDPH3).

But they also pointed out that their participation in the project had served to introduce them to the gender perspective and caused them to begin to rethink their teaching practices. In this regard, one of the participants remarked:

"Perhaps it would be worthwhile to define a set of common measures / activities for similar groups of subjects, so we could join efforts and avoid overloading." (Information Science professor, FG2_IDPH3).

4.2. Advantages, resistances and challenges to integrate a gender and LGBTQ dimension into the LIS studies

From the teacher's perspective, different opinions emerged between the most experienced and the newly qualified teachers. While there may be some resistance on the part of the more experienced teachers, especially in relation to the treatment and understanding of the LGBTQ perspective, younger generations have an open mind to incorporate the gender and LGBTQ dimensions in their subjects. This could be since none of the groups analyzed had received prior training in gender perspective, which is perceived as an important challenge to consider in the coming years. For some professors, there are also historical, technical, and theoretical matters in which either the gender perspective is not justified, or it supposes an additional exercise of searching for resources (especially in theoretical matters) where history has made invisible the scientific production of women. In relation to this point, one participant stated:

"For me, it's not that much about having discussions on inclusive language, but about thinking when recommending bibliography and giving examples to work on in class in balancing and trying not to discriminate. So, it is necessary to make an effort since there are certainly many things that we do not think about and could be reformulated with this perspective." (Information Science professor, FG2_IDPH2).

One of the arguments of these teachers was that when selecting a bibliography for a topic.

"when I select the bibliography of a subject, gender is not a criterion for me." (Information Science professor, FG2_IDPD5).

and imposing a balance in the authorship of references on all subjects would go

"against the real characteristics of the subject being taught" (Information Science professor, FG1_IPDH6)

while another teacher stated that.

"if I have to look for a biography, honestly, I don't look at who the author is. I have difficulties in finding bibliographies on certain subjects and there is no information on whether I should put the selection criteria male or female... For me the problem would be to multiply by twenty-five." (Information Science professor, FG2_IDPH4).

Some teachers also noted the need to evaluate the incorporation of gender and LGBTQ perspectives after spending time in training, reflecting on this matter and introducing it to their respective subjects. For example, a teacher mentioned that would be necessary.

"to ask teachers about their work in introducing the gender perspective in their research or teaching evaluation" (Information Science professor, FG2_IDPD6).

From the students' point of view, it is considered that the first step towards training and awareness should be taken by the teaching staff since it is where the greatest difficulty is perceived when implementing the gender perspective in the classroom. However, it is also important to note that a significant group of students, mainly from the first courses, highlighted and viewed the training on the gender perspective that they are currently receiving as positive. It indicates that the student body is positively valuing the steps that the faculty is taking to integrate the gender dimension in its studies. In this regard, one of the interviewees remarked:

"There have been several seminars at the faculty on how to introduce a gender perspective in research and this has allowed me to consider things that go beyond the use of different types of authors. For example, when designing research, you need to consider gender issues in assigning roles within the group, as we frequently have male project leaders and very few female project leaders." (Information Science professor, FG1_IDPD2).

Both groups agreed that the strategies that can be proposed by the university to incorporate the gender and LGBTQ perspective should respect times and freedoms so that they are not perceived as impositions. For example, ways of "grading or evaluating" the activity of teachers that consider the gender perspective could be a good instrument to start with. In this way, their incorporation into teaching could be recognized within teaching university systems, avoiding being perceived as a sanction if it is not applied. In relation to this point, one participant stated:

"In my course, for example, we use some websites that are very clearly addressed to women and others, to men. The use of these examples perpetuates gender stereotypes or attitudes. So, I think, it is important to raise awareness of the fact that stereotypes are constantly repeated." (Information Science Professor, FG2_IDPD5).

Both teaching staff and students also highlighted the need for greater dissemination of resources to what they can access and, specifically, of activities and/or resources promoted by the Equality Unit of the University of Barcelona. In this regard, one of the participants remarked:

"I would be interested in receiving training about these issues because otherwise it is content that I cannot incorporate in my lectures because I am not a specialist in these matters." (Information Science Professor, FG1_IDPD2).

Despite this, important limitations were found when incorporating the gender and LGBTQ perspectives in teaching. Sensitized teachers who carry out dynamics in this sense in their teaching practice were detected, but these were specific cases. There is a fairly generalized concern for incorporating this perspective, but teachers encounter significant

barriers when carrying it out (training, institutional support, recognition, etc.). Students of the new study plans of the degrees appreciate and value the incorporation of the gender and LGBTQ perspective that they have experienced in some subjects, but they continue to observe limitations and demand a more forceful and transversal introduction. All this tells us that there is a long way to go and barriers to overcome.

5. Discussion

Within the framework of GENDIMS, a pioneering initiative in LIS and audiovisual communication studies at the Spanish state level, this research has provided a diagnosis of how teachers and students perceive and value the gender and LGBTQ perspectives and how it is being introduced into the curricula of the LIS degree at the FIMA of the University of Barcelona. The use of a participatory action research approach has been especially helpful in this project in "enabling researchers to work in partnership with communities (*students and professors*) in a manner that leads to action for change" (Baum et al., 2006, p. 854). This has allowed both students and professors not only to become aware of the gender bias that occurs in teaching, but also to find ways to counteract it. Regarding this last point, in the second phase of the GENDIMS project (which is beyond the scope of this article), different student participation events on the incorporation of gender and LGBTQ perspectives were organized and a creative workshop was conducted with teachers aimed at co-designing useful instruments (audio visual material, guides, etc.) in their day-to-day teaching (Villarroya et al., 2022). As a result of the needs detected among the participating teachers in this workshop, a mentoring program was established to give teachers tools and confidence to incorporate the gender perspective in their day-to-day life. Unlike other less dynamic approaches, participatory action research collects data and information from the participants' contexts.

The use of a combination of various qualitative methods within a participatory action research approach has had a positive impact on the data analysis process and reporting of results. The combination of focus group and data extracted from field diaries has ensured, in Pratesi's, (2012, p. 96)' words, a thorough "ethnographic immersion" in the phenomenon studied. Field diaries bring attention to aspects that may not come up in focus groups and provide a situation of "co-analysis" where researchers can learn from the participants (Gibson et al., 2013, p. 387).

The analysis has allowed the researchers to observe differences in perception between students and teachers and between generations of teachers. The results have revealed how the gender perspective seems to be widely accepted among teachers, while the LGBTQ perspective still generates many doubts, distance and discomfort, especially among more established teachers (Coll-Planas et al., 2018). In line with other studies, LIS teachers at the University of Barcelona need to develop a better understanding of diversity matters and identify best practices in the teaching and learning of diversity topics to better serve the needs, expectations, and experiences of their diverse students (Mehra et al., 2011, p. 40).

Although most teachers agreed on the importance of addressing gender issues in the LIS curriculum (Roy, 2001), there were differences in how to accomplish it. While some advocated for a focus only on specialized courses, others considered the need to spread gender mainstreaming in all courses (Mehra et al., 2011). In line with other studies, some participants argued that gender is more easily integrated into some subjects and curricula than in others (Verdonk et al., 2008).

From the students' side, the results reveal a greater awareness of the gender and LGBTQ perspective and a demand for more education and training to face their professional and personal future; this highlights a generation gap. Although students appreciate the incorporation of the gender and LGBTQ perspectives that they have experienced in some subjects, they continue to observe limitations and ask for a more determined and transversal inclusion. All this tells us that there is a long way to go and barriers to overcome, being necessary to make the leap from "recognition" to "incorporation" of the gender perspective in daily teaching.

Despite gender equality being a pressing policy issue in the Catalan higher education system in general and in the University of Barcelona in particular, the results of this research point to the need to develop practical knowledge and strategies that enable the ideal of gender mainstreaming to grow and prosper in an educational setting (Yang, 2016, p. 394). Facilitators, such as procedures for curriculum development and evaluation (Verdonk et al., 2008, p. e198), as well as the involvement of regular stakeholders within the organization (Verge, 2021), and openness to change on gender issues can facilitate gender mainstreaming. In this regard, a few participants, without knowledge or experience in gender topics, pointed out that their participation in the project had served to introduce them to the gender perspective and help them to begin to rethink their teaching practices.

The fact that gender inequalities in the cultural industries sector are persistent (Conor, 2021; Menzel, 2021; Villarroya Planas, 2022) and particularly important in the information and communication sectors (De Vuyst & Raeymaeckers, 2019) confers special relevance to this study. Despite being the majority of students enrolled in degree programs related to these subjects, female professionals in the world of library and information science encounter insurmountable obstacles when it comes to joining certain professions (Corbin, 1992; Hildenbrand, 1999), progressing professionally (DeLong, 2013), and achieving visibility and recognition for their works and projects. The introduction of a gender perspective in study plans has been acclaimed by UNESCO (Conor, 2021; Villarroya Planas, 2022) and by other international (Baltà & Marcolin, 2018) and national (Barrios & Villarroya, 2022) instances as a measure to deal with discrimination in the sector. In this regard, universities are a key setting for expanding opportunities for women and underrepresented groups to fully participate in cultural life. Educational authorities and teachers must be aware of the gender stereotypes that are present in the training and educational fields, as well as the values that are promoted in them. Within the recently approved framework of a "*European strategy for universities*", "Universities are key to promote active citizenship, tolerance, equality and diversity, openness and critical thinking for more social cohesion and social trust, and thus protect European democracies. Universities have an active role to play in preparing graduates to be well-informed European citizens." (European Commission., 2022, p. 10).

5.1. Limitations

Further research should consider an intersectional lens of analysis, as well as other population samples and contexts, to find out if perceptions shown here can be extrapolated. It would also be interesting to see if policy interventions recently implemented at the Faculty and University of Barcelona level have generated the expected results.

6. Conclusion

Combining focus groups and field diaries in a novel way within a participatory action research approach has provided an entry into capturing knowledge, advantages, and challenges in integrating gender and LGBTQ perspectives in LIS teaching and curricula. From the perception of two main stakeholders, namely students and university professors, this research has highlighted, on the one hand, that the LGBTQ perspective still generates many doubts, distance, and discomfort, especially among more established teachers. On the other hand, while LIS students ask for more education and training on gender and LGBTQ perspectives to face their professional and personal future, reflection on gender and LGBTQ perspectives has helped some teachers to rethink their teaching practices.

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Appendix A. Supplementary data

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Anna Villarroya Planas has bachelor's degrees in law and economics and a PhD in public sector economics from the University of Barcelona. She is an Associate Professor in the Department of Economics at the University of Barcelona and President of the European Association of Cultural Researchers. She is also the academic coordinator of the Inter-university Doctoral Program in Gender Studies: Cultures, Society and Policy and the director of the Centre for Research on Information, Communication and Culture (CRICC) at the University of Barcelona. Her areas of expertise include women and science, women and culture, the social value of culture, and gender perspectives in training and research. She has published her research in journals such as *European Journal of Women's Studies*, *Scientometrics*, *Journal of Librarianship and Information Science, Learned Publishing, Profesional de la Información*, *Cultural Trends and European Journal of Cultural Studies*.

Juan-José Boté-Vericad has a bachelor's degree in computer science from the Open University of Catalonia. He holds a PhD in information science at the University of Barcelona. He is Lecturer Professor in the Department of Librarianship, Documentation and Media Studies at the University of Barcelona. He is member of the Centre for Research on Information, Communication and Culture (CRICC) at the University of Barcelona. His areas of expertise include research data management, mixed methods research, and gender perspectives in training and research. He has published his research in journals such as *DESIDOC, Education for Information, Journal of Collection Management, Learned Publishing and Profesional de la Información*.