

ALIGNING LIS COMPETENCY AND QUALIFICATION STANDARDS WITH MARKET DEMANDS: A CASE STUDY FROM MOLDOVA

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Abstract: In today's digital landscape, the Library and Information Science (LIS) sector is challenged to keep pace with rapid technological developments and the exponential growth of information. These changes require constant reassessment of library roles and functions, transforming libraries into multi-functional information and cultural hubs. To remain relevant, LIS training programmes need to be regularly updated to equip professionals with advanced information management skills and the ability to navigate effectively in digital environments. It is imperative to develop flexible competency and qualification standards that encompass both technical skills and soft skills, such as communication and ethical information handling, to align LIS education with current and emerging trends.

Prompted by these needs, the Ministry of Education and Research of the Republic of Moldova initiated task forces to establish competency and qualification standards in library, information and archival studies. These efforts aim to meet the demands of the labour market and to create a modern, coherent educational framework. Between 2023 and 2024, these task forces developed Competency Standards and Qualification Standards for the professional field 0322 Library, Information and Archival Studies for the bachelor's, master's and doctoral levels, as well as the Occupational Standard and Qualification Standard for the professional-technical level.

These competency standards provide a robust framework for assessing and improving the skills of librarians in Moldova. By setting out core competency requirements, they help to ensure a high quality of service in diverse library environments, enabling librarians to meet the needs of the community and provide accurate and relevant information.

In addition, these standards have informed the development of qualification standards at the four levels of the National Qualifications Framework (4, 6, 7 and 8). Developed in line with European standards, international best practice and the specific competence needs of the LIS sector, these standards are designed to synchronise professional training with market demands, facilitating updates to legislation, curriculum content, job descriptions, recruitment of qualified staff and development of training programmes and qualification examinations.

In a rapidly changing world, proactive training in LIS is important. Identifying key skills and adapting qualification standards will prepare a new generation of librarians to lead innovation in information and education, enhance the profession and ensure that libraries remain vital in modern society.

Keywords: Library and Information Science (LIS), competency standards, qualification standards, digital transformation, professional training, learning outcomes.

JEL Classification: D83; I23; L86

1 Introduction

The transformation of libraries into multifunctional centres of information and culture expands and complicates the role of librarians, highlighting the need for LIS training programmes to constantly adapt to these changes. Today's information technology-driven environment has created new professional demands that require appropriate skills and competencies to develop innovative products and services in response to emerging trends (Sindh and Pinki, 2009). Today's librarians need a diverse set of skills and qualifications to cope with the evolving information landscape. These competencies include technical, people and conceptual skills, as well as important personal qualities such as innovation and social awareness (Amdan *et al.*, 2024). Research shows a gap between the expectations of experienced library and information science (LIS) professionals and the perceptions of recent graduates about the ICT skills required for future jobs (Tahir and Warraich, 2021). It is important to develop professionals who, in addition to information resource management skills, are able to adapt and operate effectively in the changing digital environment.

As the field of LIS continues to evolve in response to advances in technology, changes in information management and changing user needs, traditional methods of education and training are being challenged. Competency-based education offers an alternative approach that focuses on the mastery of specific competencies and skills and is therefore better suited to preparing professionals for the rapidly changing demands of the field. A detailed argument for the adoption of competency-based LIS education is presented below.

These changes have prompted LIS schools to adapt their curricula and libraries and LIS centres to revise their requirements for candidates to meet the changing needs of the labour market (Bronstein and Nebenzahl, 2020). In this context, the development and adaptation of competency and qualification standards is of paramount importance.

2 Problem Statement

In a digitised and changing world, the role of libraries and LIS professionals is becoming increasingly complex and essential. The establishment of competence and qualification standards for these professionals is important to ensure their adaptability and relevance in the face of technological and societal change, and to define the skills and knowledge needed in practice.

New LIS qualification standards are needed to meet the challenges of rapid technological developments and changing information needs. There is currently a gap between academic skills and the practical needs of employers, and areas such as digitalisation and artificial intelligence are not sufficiently addressed in current standards. The employability of LIS graduates is influenced by the alignment of their skills with the needs of industry. Research suggests that while academic programmes provide foundational knowledge, there is a significant gap in the practical skills required by employers. A survey of UK employment agencies found that different library and information management (LIM) sectors prioritise different skills, suggesting the need for tailored curricula (Stephens and Hamblin, 2006). At the same time, despite faculty awareness of industry trends, there is scepticism among practitioners about the adequacy of LIS curricula in preparing graduates for the

workplace (Blankson-Hemans and Hibberd, 2004). Another study found that the Master's programme in LIS did not fully meet the expectations of graduates, employers and society, highlighting a mismatch between educational provision and labour market needs, and recommended a periodic review of the programme to integrate the required 21st century skills to better meet current market needs (Kassim *et al.*, 2023). LIS schools and other organisations should be aware of the learning needs of librarians, including research, and facilitate them by creating a conducive environment for learning and applying research knowledge (Malik *et al.*, 2023).

In contrast, some argue that the evolving nature of LIS roles, particularly in digital environments, requires continuous adaptation of curricula to ensure that graduates remain competitive in a changing labour market (Mullins, 2012). As the demand for advanced skills increases, academic programmes need to adapt to include training in emerging technologies and digital skills (Mu, 2023).

Quality assurance mechanisms also need to be improved to ensure consistency across institutions and to align local standards with international standards, thereby facilitating graduate mobility. The process of reviewing these standards requires more effective collaboration between academic institutions, employers and regulatory bodies.

There are also issues around global LIS educational standards and their impact on professional mobility. The study "An Investigation of LIS Qualifications throughout the World", conducted by researchers at the University of Central England and supported by the International Federation of Library Associations (IFLA), found that the lack of uniform, internationally recognised standards for LIS qualifications hinders the ability of professionals to move and work internationally (Dalton and Levinson, 2000). The researchers conclude that there is no simple solution to achieving reciprocity of LIS qualifications. They suggest further global cooperation to address professional standards or encouraging more countries to adopt accreditation models. In the long term, coherent standards need to be developed to facilitate greater international mobility of LIS professionals.

3 Context

The Qualification Standards for Library, Information and Archival Studies are a basic framework that regulates the professional competencies required by professionals to meet the demands of the labour market. These standards are developed using rigorous methodologies that ensure the link between employers' needs and the higher and vocational education and training system. As part of the development process, the Ministry of Education and Research (MEC) formed working groups that included representatives from various info-documentation structures in the Republic of Moldova, such as libraries, information centres and professional associations, as well as members of academia and vocational training institutions in the field.

Initially, there were no competence standards, which required the creation of both competence standards and qualification standards for four levels of the National Qualifications Framework (NQF): level 4 for vocational-technical studies, level 6 for bachelor's studies, level 7 for master's studies and level 8 for doctoral studies. The process of developing the qualification standards was influenced by the integration of the Republic of Moldova in the context of globalisation and the need to adapt to the dynamics of the labour market, constantly consulting European and international practices.

The Qualification Standards were based on the Competence Standards and the taxonomised occupational competences allowed to focus on learning outcomes, final assessment and criteria for awarding qualifications. The working groups followed the established methodological steps, which

included training experts, documenting the functioning of the labour market, analysing the legal framework, consulting graduates and sector representatives, and defining criteria for assessing the quality of vocational education and training.

In order to facilitate the internationalisation of the labour market and education, it was necessary to align national qualification standards with regional and international standards. This process included the interoperability of learning outcomes and national qualifications instruments with the European Qualifications Framework (EQF), the Europass diploma, the language passport and other similar mechanisms. Compatibility of higher education credit systems with the European Credit Transfer and Accumulation System (ECTS) has also been achieved to ensure international recognition of qualifications. The principles of quality assurance of qualifications have been applied in accordance with the EQF.

In parallel, international and national LIS competence indices, competence and qualification standards in other countries, as well as the results of studies on the competences needed in a modern information environment and development trends in the field were analysed.

4 Results and discussion

The Qualification and Competency Standards are a validated framework describing the professional competencies and associated levels of competence required to become a librarian or library and information professional. They promote competence-based education which focuses on the development of practical skills, not just the accumulation of theoretical knowledge.

Education, training and certification focus on demonstrating the required outcomes in line with the needs of the labour market. The labour market uses 'occupational competence' to describe the skills needed for a job, defined by tasks and responsibilities, while the education system uses 'learning outcomes', which show what a graduate can do after graduation.

Qualification standards comprise competence areas, competences and learning outcomes. In the national normative documents there is no clear definition of the concept of an area of competence, only that it should reflect the stages or phases of the provision of a service or production. According to the Glossary of Key Information Security Terms the area of competence is defined as "A cluster of related Knowledge and Skill statements that correlates with one's capability to perform Tasks in a particular domain. Competency Areas can help learners discover areas of interest, inform career planning and development, identify gaps for knowledge and skills development, and provide a means of assessing or demonstrating a learner's capabilities in the domain" (Paulsen, 2019). The educational objective refers to the content of knowledge and skills required to perform tasks in a subject area, facilitating career planning, identification of gaps and assessment of the learner's competences.

The areas of competence in the qualification standards have been aligned with IFLA (International Federation of Library Associations and Institutions) recommendations, available qualification standards from European countries, and the categories of competencies required of LIS professionals. The areas of competence for the professional-technical, bachelor, master and doctoral levels of study are shown in Figure 1.

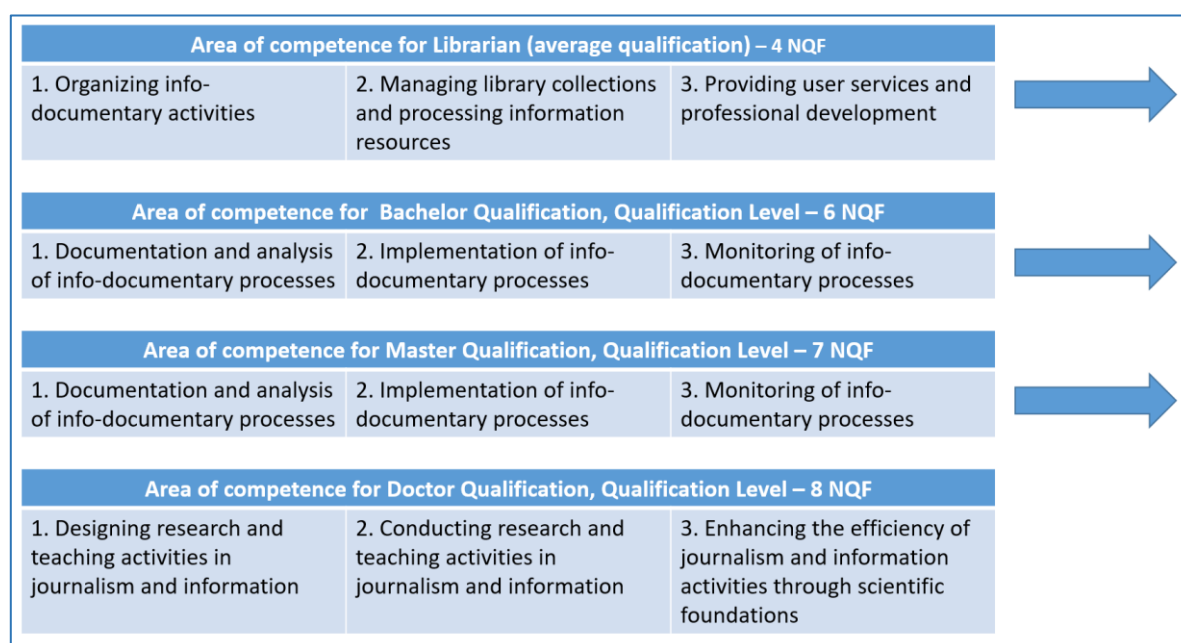


Figure 1 Areas of competence according to the level of qualification for the professional training field Library, information and archival studies

Source: authors own study

The fields of competence for Bachelor's and Master's degrees are identical, although they represent different levels of education, with Master's being a higher level than Bachelor's. The difference lies in the competences and learning outcomes, which are defined in terms of their complexity according to the hierarchy established by Bloom's taxonomy. For the PhD, the areas of competence have been elaborated taking into account that the LIS field is part of the general field of study of Journalism and Information, as well as the fact that these programmes focus on in-depth individual study.

In addition, for each competence area, the occupational competences have been mapped according to the competence standard for levels 6, 7 and 8 or the occupational standard for level 4 CNC. Table 1 provides a summary of the occupational competences corresponding to each level of study to be achieved by the end of university or vocational-technical higher education.

The development of qualification standards has been achieved by aligning vocational competences with the needs of the labour market, clearly defining the learning outcomes for each level of education and ensuring effective assessment of the skills required for different functions and fields.

Table 2 Professional competences relevant to qualifications

Competences			
4 NQF	6 NQF	7 NQF	8 NQF
PC ₁ Managing personal and professional activities	PC ₁ Gathering information on the info-documentary market	PC ₁ Estimation the info-documentary market based on information consumption needs	PC ₁ Establishing the framework of research needs, expertise and innovation in the field of media and communication
PC ₂ Managing information	PC ₂ Compliance with information requests for	PC ₂ Identification of the procedures for analysing	PC ₂ Researching, creating, and promoting knowledge

resources	information resources	and synthesizing the content of information resources	in media and communication
PC ₃ Technical processing of information resources	PC ₃ Establishing and maintaining a collection of information resources	PC ₃ Quality assurance of information resources collections	PC ₃ Scientific expertise and evaluation of media and communication activities and products
PC ₄ Library management of information resources	PC ₄ Ensuring the preservation of information resources	PC ₄ Coordination information resources development, storage and preservation	PC ₄ Implementing scientific achievements in journalism, librarianship, and communication practice
PC ₅ Cataloguing system management	PC ₅ Evaluation of the use of information resources	PC ₅ Evaluation of information resources management	PC ₅ Conceptualisation of professional training programmes in journalism and information
PC ₆ Collections maintenance	PC ₆ Examination of standards, data recording formats, and processing of information resources	PC ₆ Assessing compliance of information/data processing and preservation processes.	PC ₆ Development and establishment of professional training courses in journalism, librarianship, and communication education
PC ₇ Preservation of information resources	PC ₇ Analytical and synthetic processing of information resources' content.	PC ₇ Examination of user needs to expand the offering of info-documentary services and products	PC ₇ Modernise and optimise the journalism and information education process
PC ₈ Serving users through consultation and loans	PC ₈ Establishing an information organization and search system.	PC ₈ Coordination the provision of info-documentary services and user training	
PC ₉ Bibliographic information	PC ₉ Storing and preserving information resources	PC ₉ Managing the preparation of info-documentary products	
PC ₁₀ Provision of cultural and educational services	PC ₁₀ Assessing of the processing and preservation quality of information, data, and information resources	PC ₁₀ Evaluation of user satisfaction	
PC ₁₁ Use of ICT techniques and tools	PC ₁₁ Identifying community information needs	PC ₁₁ Assessment of the external and internal operating environment of the info-documentary institution	
PC ₁₂ Professional capacity building	PC ₁₂ Analysing the supply of information services	PC ₁₂ Planning the activity of the info-	

	and products	documentary institution	
	PC ₁₃ Providing info-documentary services, as well as training for information users	PC ₁₃ Organisation of methodological and innovative activity in the info-documentary field	
	PC ₁₄ Creating information and documentation products	PC ₁₄ Impact evaluation of info-documentary activity	
	PC ₁₅ Measuring user satisfaction		

Source: authors own study

Once qualification standards have been developed, their validation and approval by the competent authorities requires several implementation steps, including the adaptation of curricula in higher education and vocational education institutions to integrate the defined competences and learning outcomes. Active promotion of these standards is also necessary to inform employers and to ensure the recognition of competences and qualifications acquired by graduates in accordance with the new standards.

5 Conclusion

To meet these challenges, it is necessary to develop new qualification standards in library and information science that reflect the needs of industry, integrate technological advances, recognise diverse educational backgrounds, ensure quality, enhance global competitiveness and promote collaboration between stakeholders. These standards will support the development of graduates capable of working in a dynamic information environment.

Qualification standards in LIS include a set of core competencies, changing curricula and compliance with international standards, and are essential to prepare professionals for today's challenges. However, rapid changes in technology and information may require continuous adaptation of curricula to maintain the relevance of LIS education.

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