

Competency-based lifelong learning of librarians in Croatia: an integrative approach

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Abstract

Purpose – The purpose of the paper is to present the main findings of a nation-wide online survey of Croatian LIS stakeholders - library practitioners, mainly graduate librarians and library managers – regarding subject-related competencies and further CPD activities in perspective of lifelong learning of librarians. The findings were used to create a model of LIS competency framework strongly valued by labour market.

Design/methodology/approach – A sample of 216 Croatian libraries was pre-selected to participate in an online survey in order to obtain an optimal stratification of study cohort according to library type, library size and territorial coverage. Two distinctive online questionnaires were prepared, one for library managers, the other for library practitioners. 113 library managers (52% of pre-selected sample) and 260 librarians (cca. 10% of estimated size of overall professional body in Croatia) responded. A Tuning methodology was applied for purpose of identifying subject-related and key generic competencies in LIS.

Findings – The results of the online survey indicate that for LIS professionals there is a unified ‘core’ of subject-specific competencies valid for every type of library. The same is true for subject-specific competencies on ‘periphery’. Generic competencies have been strongly valued by both groups of respondents. Participation in formal and informal learning opportunities has proved to be intrinsically motivated, self-directed and driven by pragmatic reasons – a wish to improve working skills and increase self-confidence.

Practical implications – It is hoped that the competency-based approach applied to the CPD programme may bridge the gap between initially acquired competencies, labour market expectations and personal goals fostered by an integrative process of lifelong learning.

Originality/value – The research is the first nation-wide investigation into the LIS competency framework in Croatia.

Article type – Research paper.

Keywords – competency framework in LIS, lifelong learning, librarians, Croatia

Introduction

Academic LIS education in Croatia has a thirty year old tradition and at present future librarians can choose to study at several LIS university departments (Zagreb, Zadar, Osijek). However, following the introduction of the Bologna reform at the universities in 2005 and the consequent reshaping of academic curricula, the labour market, i.e. mainly libraries of all types, seems to have difficulties in recognizing competencies achieved by graduate students. It seems to be equally difficult for libraries to understand the differences in curricula content delivered by three existing LIS university departments. Apparently LIS education in Croatia copes with the same tensions noted in other countries and described in professional literature: multi-tiered system of qualifications, higher number of schools per capita, drift to new professional identities, pressure for curriculum review (Harvey and Higgins, 2003; Cronin, 2002).

The Library Act (1997) stipulates that only graduate librarians may be employed in libraries. Following the initial three years of professional development (IPD) within library settings, all library practitioners have to pass a state examination for librarian or assistant librarian. The examination is the first step in their possible further advancement in the career. Later on graduate librarians will have the opportunity to advance and become senior librarians or library advisors. The requirements for the advancement are published scientific or professional papers and years spent in practice (five years for senior librarian and ten years of practice for library advisor).

Continuing professional development (CPD) for librarians in Croatia had been institutionalized in 2002 through centrally established Training Centre for Continuing Education of Librarians (Horvat, 2004). Since then, the National and University Library has been managing the Centre, in cooperation with the program partners: Department of Information Sciences, University of Zagreb, Zagreb Public Libraries, and Croatian Library Association. Prior to the establishment of the Centre different post-secondary training opportunities for librarians existed, but methods and formats of delivery were not standardized and program's aims, targeted audience and intended learning outcomes were not determined. Benefits of a centralized CPD activity have been organizational and instructional as regards the program planning and purposeful for the participants. The standardized non-compulsory CPD program consists of non-credited short courses, based on instructionally-designed and library type-specific training programs. Participation in training is intentional, although there has been no assessment of any kind.

In 2009 the Training Centre for Continuing Education of Librarians obtained funds from the National Foundation for Science, Higher Education and Technological Development to carry out a one-year project "Lifelong learning for librarians: learning outcomes and flexibility". The aim of the project was to establish a basis for the development of a modern, flexible system of lifelong learning for librarians. The key strategic points of the project were: defining measurable learning outcomes framework, outlining core skills and competencies for the librarians in Croatia, redesigning the existing national program for continuing professional development, and drafting of the proposal for competency-based lifelong learning for librarians (Mastrovic, 2009). The project team consisted of six members of different background: library practitioners, teachers of librarianship from the Department of Information Sciences, University of Zagreb and a foreign consultant, a colleague from CILIP, UK.

LIS Competencies

Subject-related competencies or the 'core' of library and information science have always been central to the curriculum design or curriculum development. Competencies in the

curriculum have necessarily been anticipated i.e. curriculum creators had to anticipate what future librarians would need to know or would be able to do (Saracevic, 1983) after the acquirement of a diploma. For more than hundred years the 'core' in LIS curriculum has been positioned in what Shera (1972) calls "the old quadrivium of cataloguing, book selection, reference, and administration". Reasons for the dynamic curriculum change in LIS have been related to the ecological theory of the survival of species in environmental changes of evolving ecosystems (Sutton and Van House, 1996), or described as „a move from Ptolemaic information universe (with libraries at the centre) to a Copernican one (with libraries in periphery)" (Cronin, 2002) etc. Anticipating library competencies (abilities, qualities, knowledge and skills) is closely related to the purpose of library and information science (Line, 2007). The state of LIS curriculum design and current trends has been elaborated in KALIPER report (Durance, 2009), one of the most exhaustive study about LIS education in the US after Williamson report in 1923. Studies about the 'core' of LIS education have been conducted in other parts of the world as well (Hallam, 2006; Ojala, 1993; Raju, 2003).

However, empirical researches (Marouf and Rehman, 2007) point out to a certain gap or disagreement between LIS academia and industry about the required information skills and knowledge. 'If there is general agreement about the knowledge and understanding which the new entrant to the profession needs to acquire, there is less clarity regarding the skills which are required if s/he is to function effectively as an information professional' (Brine and Feather, 2002).

Traditional curriculum frameworks are becoming too narrow by the science explosion, and librarians' professional success depends on the constant renewal of existing competencies and acquirement of new ones. Acquiring competencies is a lifetime process. Herbert White (1986) notes that the master's degree is not so much a qualification for a particular position, as it is a qualification for the entry into the profession. Tammara (2005) stresses that a number of developments has reduced the value of formal qualifications and academic titles and has placed more emphasis on labour market-oriented competences and lifelong learning.

Remaining competent or retaining acquired competencies has been in focus of empirical researches in the field of professional development, training or human resource development. Researches in the domain of competencies from the stakeholder's perspective (librarians, library managers and labour market) are extensive (Gorman, 2002; Buttlar and Du Mont, 1996; Farmer and Campbell, 1997; Spackman et al, 2006; Calzonetti and Crook, 2007; Rodriguez-Bravo, 2009).

Horvat (2009) points out to competencies as a common language that can conveniently bridge the world of education/training and the world of labour. The Bologna process, introduced at European universities in order to make European labour force more competitive, focuses on competencies and considers them central to the education process. Learning outcomes are directly connected to competencies. Education based on the outcomes results in qualifications expressed in terms of learning outcomes. Outcomes-oriented standards facilitate linking of educational provision and occupational expectation (CEDEFOP, 2009).

Methods

In 2009 a nation-wide online survey of Croatian LIS stakeholders - library practitioners (mainly graduate librarians) and library managers – regarding subject-related competencies and further CPD activities in perspective of lifelong learning of librarians was conducted. A sample of 216 Croatian libraries was pre-selected to participate in the survey in order to obtain an optimal stratification of study cohort according to the library type, size and territorial coverage. Two distinctive online questionnaires were prepared, one for library managers, the other for library practitioners. 113 library managers (52% of pre-selected

sample) and 260 librarians (cca. 10% of estimated size of the overall professional body in Croatia) responded.

A *Tuning* methodology was applied in order to identify subject-related and key generic competencies in LIS. The project *Tuning of educational structures and programs in Europe*, based on their diversity and autonomy, was designed to understand academic curricula and to make qualifications comparable and readable at national and international level. Although Tuning process was primarily aimed at the identification of subject-specific competencies, it also devoted attention to generic competencies and transferable skills which foster employability, social inclusion and active citizenship.

The survey questions were grouped into three categories: questions about the state of library profession, professional status and perspectives; questions related to the evaluation of the importance and development of subject-specific and generic competencies, and questions about ongoing training and informal learning of librarians. In the central part of the questionnaire Tuning methodology was implemented.

Respondents were asked to rate by Likert scale a level of importance of a particular competency to the profession and a level to which the competency have been acquired at university for all listed subject-related and generic competencies. The questionnaire for librarians included the questions on: age, sex, entrance to profession, length of working experience, library type, library post, job activities, intensity of importance of competencies for the profession and level to which competencies have been developed at university, participation in training programs, reasons for the participation in the training, three positive characteristics of the training, three negative characteristics of the training, interest in specific topics, time spent in continuing education, non-formal and informal learning provisions, professional perspectives in the near future.

The questionnaire for library managers contained the questions on: type of library, library size, number of graduated librarians employed in the library, number of librarians employed in the previous year, preference of the employer to recruit a graduate student/experienced librarian/expert in another profession, assessment of graduates' qualification for library work (employability), rate of importance of listed subject-specific and generic competencies for the profession and level to which they had been developed at university, need for professional training regarding the library overall strategy, interest for specific training topics, training offered to librarians in the last year, professional status in society.

Findings

A comparative analysis of data gathered reveals key subject-specific and generic competencies in the field of library and information science in Croatia from the perspective of chief LIS stakeholders.

The analysis of basic characteristics of librarians shows that the respondent body consists of mainly female, middle-aged population with a median age of 41.0 years, with the highest percentage of graduate librarians with a relatively short working experience in the library (up to ten years) (Table 1).

Librarians	No.	%
Sex		
F	212	91.8
M	19	8.2
Year of Birth		
1940-1950	13	6.3
1951-1960	53	25.9

1961-1970	55	26.8
1971-1980	65	31.7
1981-1990	19	9.3
Years of service		
1-10	96	41.4
11-20	68	29.3
21-30	68	29.3
Formal educational status		
Graduate diploma	218	94.8
Master's degree	10	4.3
Doctoral degree	2	0.9

Table 1. Characteristics of librarians who responded to the questionnaire (in percentage)

According to the type of library, the largest number of respondents have been employed in public libraries (60.5%), followed by school libraries (20.3%) and academic and special libraries (18.4%). Only 0.8% of respondents have been employed outside the library setting.

The respondents are predominantly graduate librarians (91.3%). 61.1% of respondents have completed one of university LIS programmes while 38.4% entered the profession after the successful completion of the initial professional development exam. (Table 2)

Professional profile		
Graduate Librarian	211	91.3
Senior Librarian	13	5.6
Library Advisor	7	3.0
Professional entrance level		
IPD exam	98	38.4
Four year LIS study	35	13.7
Two year LIS study	63	24.7
Part-time LIS study	58	22.7
Non-LIS study	1	0.4
Professional profile		
Graduate librarian	95	38.6
Reference librarian	67	27.2
Library manager	37	15.0
Librarian	25	10.2
Cataloger/indexer	14	5.7
Library advisor	8	3.3

Table 2. Formal education and professional profile (in percentage)

According to the scope of their job activities, the largest number of respondents said that their work includes mostly searching and retrieval, user services, information services, organizing of cultural programmes, etc. Breakdown by type of library revealed many statistically significant differences and diversity in a wide range of performing tasks in relation to the same job title (graduate librarian) (Image 1 and Table 3)

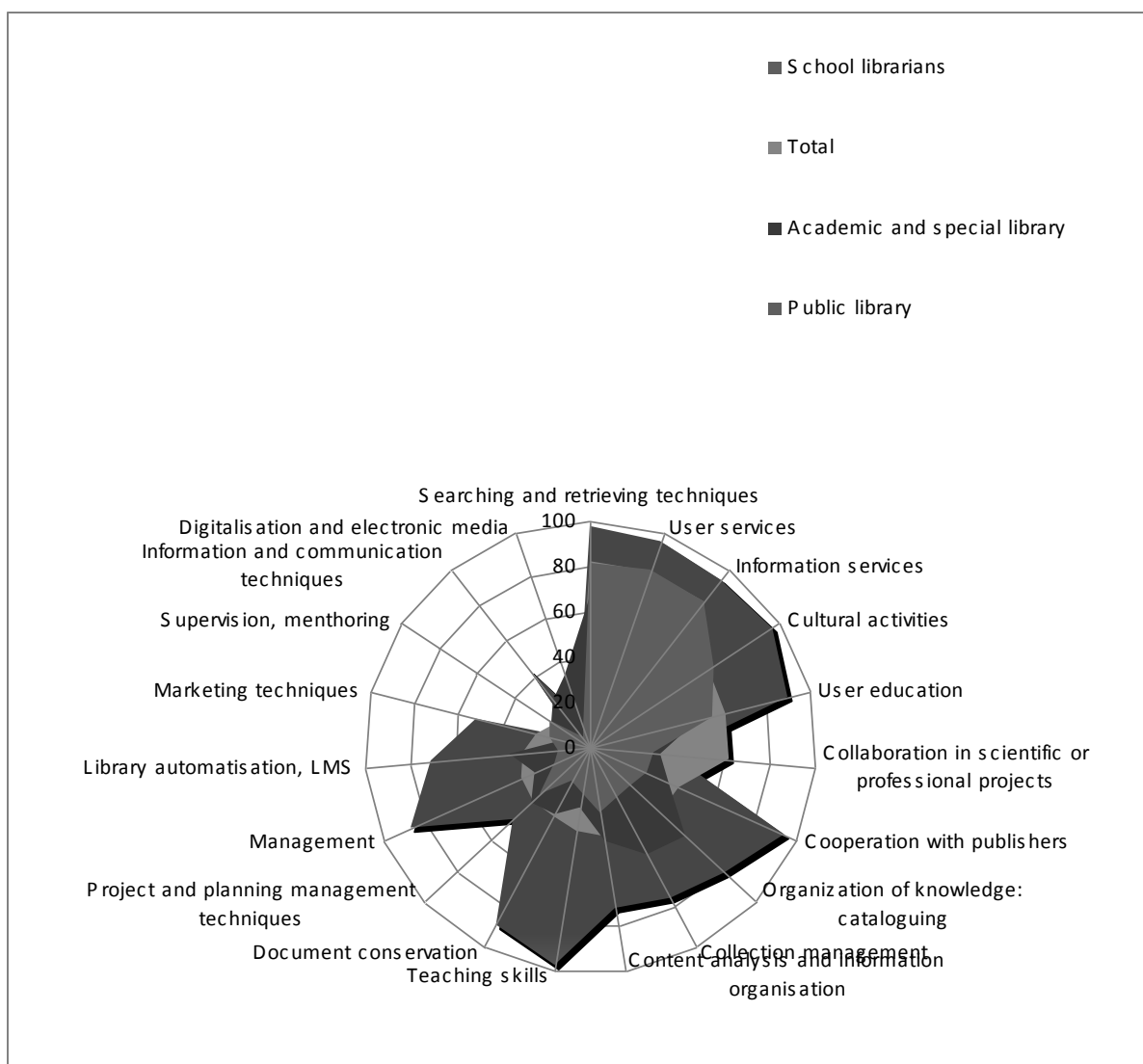


Image 1. Performing of the tasks by library type

Scope of working activities	School libraries	Public libraries	Academic and special libraries	Total
Searching and retrieving techniques	98.1	81.4	66.7	82.3
User services	96.3	82.6	64.4	82.3
Information services	94.4	81.4	68.9	81.9
Cultural programmes	96.3	65.2	13.3	62.7
User education	90.7	55.3	48.9	61.5
Cooperation with publishers	94.4	27.3	37.8	43.1
Organization of knowledge: cataloguing	81.5	24.8	57.8	42.3
Collection management	75.9	25.5	53.3	40.8
Content analysis and information organisation	72.2	28.6	42.2	40
Teaching skills	98.1	20.5	26.7	37.7
Document conservation	88.9	16.8	33.3	34.6
Project and planning management techniques	46.3	30.4	35.6	34.6

Management	87	17.4	26.7	33.5
Collaboration in scientific or professional projects	35.2	28	31.1	30.0
Library automation, LMS	70.4	14.3	35.6	29.6
Marketing and fund-raising	51.9	18.6	13.3	24.6
Supervision, mentoring	7.4	21.7	20	18.5
Information and communication development	42.6	5	26.7	16.5
Digitization and electronic media	14.8	8.7	33.3	14.2

Table 3. Scope of working activities by library type (in percentage)

Analysis of competencies as seen by librarians indicates the presence of statistically significant differences in all questions, when competency acquired at the study is compared with its importance for the profession. All competencies are seen as more important than acquired, apart from the competency 'knowledge and application of basic theoretical principles and historical development of librarianship', which has been statistically significantly higher ranked as acquired than important.

Library managers rank higher subject-specific competency development at university than librarians, except for the following competencies: document conservation, theoretical principles, standards and organization of knowledge. Managers assess theoretical knowledge higher than practical skills of graduate librarians.

The average value ratings of subject-specific competencies indicate the presence of small differences of opinion of both groups of respondents in the assessment of level to which competencies have been developed and large differences in the assessment of their significance for the profession (Table 4 and Table 5).

Subject-specific competencies	Importance (librarians)	Importance (managers)
Identification and assessment of information	4.92	4.88
Search and retrieval techniques	4.91	4.88
Interaction with service users	4.89	4.87
Global information management (information resources)	4.88	4.85
Content analysis and information organisation (classification)	4.64	4.56
Information and communication technologies	4.63	4.71
User education	4.59	4.71
Communication with public	4.57	4.64
Knowledge of ethical and legal framework	4.52	4.48
Library automation (LMS)	4.50	4.38
Information management techniques (cataloguing)	4.49	4.50
Collection management	4.44	4.33
New knowledge creation	4.42	4.37
Cultural programmes	4.38	4.43
Document conservation	4.28	4.24
Digital collection management	4.17	4.19
Teaching skills	4.13	4.36
Scientific methods	4.09	4.14

Digitising and electronic media	3.89	3.96
Knowledge of the profession	3.65	3.51
Production and publication techniques	3.61	3.64

Table 4. Importance of subject-specific competencies by librarians and managers (in percentage)

Subject-specific competencies	Developed (librarians)	Developed (managers)
Knowledge of the profession	4.26	4.05
Information management techniques (cataloguing)	3.95	3.91
Knowledge of ethical and legal framework	3.74	3.65
Document conservation	3.69	3.63
Searching and retrieval techniques	3.60	3.78
Interaction with service users	3.59	3.61
Global information management (information resources)	3.58	3.78
Identification and assessment of information	3.58	3.63
Content analysis and information organisation (classification)	3.50	3.63
Information and communication technologies	3.43	3.77
Collection management	3.17	3.19
User education	3.16	3.24
New knowledge creation	3.06	3.35
Teaching skills	2.98	3.22
Library automation (LMS)	2.96	3.24
Scientific methods	2.93	3.27
Cultural programmes	2.89	3.22
Communication with public	2.86	3.03
Production and publication techniques	2.81	3.10
Digital collection management	2.66	3.11
Digitising and electronic media	2.41	2.91

Table 5. Level of development of subject-specific competencies at the university (in percentage)

A mutually agreed ‘core’ of important subject-specific competencies consists of mainly user-oriented competencies and skills in ‘bibliographical’¹ perspective. The following competencies appear at the periphery: digitising and electronic media, knowledge of the profession and production and publication techniques.

The best developed competencies at university are: theoretical knowledge of the profession, bibliographic competencies (cataloguing), ethical and legal framework and document conservation.

Generic competencies are highly-valued by library managers, and appear to be also very important for librarians. Computing and communication skills are highly ranked, with information management skills (information literacy), ethical commitment and team building

¹ Hjørland, B. (2008), „Arguments for ‘the bibliographical paradigm’. Some thoughts inspired by the new English edition of the UDC (2007)“, *Information research – an international electronic journal*, Vol. 13 No. 2, Art. No. 06.

skills as follows. Library managers assess acquirement of generic skills at university higher than librarians (Table 6 and Table 7).

Generic competencies	Importance (librarians)	Importance (managers)
Elementary computing skills	4.79	4.83
Communication skills	4.85	4.81
Information management skills (information literacy)	4.83	4.79
Ethical commitment	4.83	4.77
Team building skills	4.73	4.76
Ability to learn and manage own learning	4.68	4.71
Adaptation in problem solving	4.70	4.68
Ability to work autonomously	4.59	4.66
Capacity for applying knowledge in practice	4.70	4.59
Leadership	4.39	4.55
Critical and self-critical abilities	4.46	4.48
Knowledge of second language	4.30	4.33
Will to succeed	3.88	4.15
Research skills	4.04	4.11

Table 6. Importance of generic competencies by librarians and managers (in percentage)

Generic competencies	Developed (librarians)	Developed (managers)
Elementary computing skills	3.56	4.13
Ethical commitment	3.79	3.91
Ability to learn and manage own learning	3.75	3.85
Information management skills (information literacy)	3.44	3.77
Knowledge of second language	3.32	3.68
Capacity for applying knowledge in practice	3.41	3.56
Will to succeed	3.15	3.48
Ability to work autonomously	3.29	3.45
Communication skills	2.99	3.41
Research skills	3.25	3.40
Team building skills	3.23	3.39
Critical and self-critical abilities	3.09	3.36
Adaptation in problem solving	2.96	3.19
Leadership	2.96	3.07

Table 7. Level to which generic competencies have been developed and acquired at university – opinions of librarians and managers (in percentage)

The average value ratings of participation in non-formal and informal learning indicate five most used provisions, as follows: professional literature search (77.69%), seminars and conferences held in Croatia (60.38%), national program of continuing education of librarians (51.92%), courses in computer technology (ECDL) (18.85%) and publishing of professional papers (16.54%). Most cited reasons for participation in training/learning activities are: improvement of working abilities (76.15%), upgrading of self-esteem and self-confidence (49.23%). Only 10% of respondents see the participation in training/learning as an opportunity for advancement of their professional status.

Librarians spend less than 10 hours per month in training/learning activities.

The most significant difference between values indicated by librarians and managers is in the interest in specific topics in continuing education. While librarians are mostly interested in the development of subject-specific competencies, library managers indicate the need for librarians to develop communication skills (60.2%), soft skills (e.g. emotional intelligence) (50.4%), advanced computing techniques (49.6%), management and leadership (47.8%), ability to learn (42.5%), subject-specific competencies (39.8%) and second language (26.5%).

Competency framework

The findings may also indicate that the library profession in Croatia tends to be user-oriented empowering² profession which provides services by applying the solid knowledge of information and communication technologies to the initial corpus of professional knowledge in 'bibliographical' perspective (cataloguing, classification, information management). Education for library profession is understood by both employers and librarians as technically oriented (cataloguing, classification, indexing), and they believe that, due to a switch from the library strategy of ownership to the strategy of access, such knowledge has lost its earlier importance for the profession. Librarians continue to acquire new competencies on the job, primarily related to the development of highly practical knowledge and skills. Employers and managers as well as librarians rate knowledge acquired through professional development/learning very highly. Intensity with which librarians participate in all forms of learning and professional development points to a high intrinsic motivation for lifelong learning.

The survey findings were used to create a model of LIS competency framework strongly valued by both labour market and by professionals.

Competency framework is planned to be used in the national program for continuing education of librarians as a tool:

- to adapt curricula to the expectations of professionals and labour market,
- to support assessment according to the professional development plan
- to foster career-long education and lifelong learning of librarians
- for quality control of CPD activities.

Standardization of continuing education curriculum due to the expectations of professionals and labour market will support professional progress and hopefully increase educational/training proficiency.

Acquiring competencies is seen as a process that could be planned, controlled and assessed in order to acquire a transparent reward system, to create a method for career planning and manage professional development. Competencies expressed in terms of intended learning outcomes in the national CPD programme can be measured and (self-)assessed according to the planning set up in professional development plan. It has to be taken into account that at present, as witnessed in professional literature (Lederman, 2010) getting instructors to see measuring learning as in their own interests, is not an easy task. However, the success of the national CPD programme will depend to a great degree on the quality of trainers and their willingness not only to constantly update their own knowledge and skills, but also to accept new forms of teaching. Mentoring should also be introduced to support individual process of planning, acquiring and evidencing competencies.

² Maack, M. N. (1997), „Toward a new model of the information professions: embracing empowerment“, *Journal of Education for Library and Information Science*, Vol. 38. No. 4., pp. 283-302.

Once acquired competencies could be transported and re-used in other professional environments.

Quality control in the context of professions is often discussed in terms of credentialing individuals and/or institutions (Houle, 1980). Credentialing or certification focuses on the attainment of minimum or prescribed standards. Competency framework fosters professionals to plan and seek for higher level of competency development throughout their career path.

Conclusion

The findings indicate that for LIS professionals in Croatia there is some unified 'core' of subject-specific competencies for all type of libraries. The same is true for subject competences on the 'periphery'. 'Core' competencies are predominately user-oriented and technologically-driven in 'bibliographical' perspective. Generic competences have been strongly valued by both types of respondents, librarians and library managers. Participation in formal and informal learning opportunities is intrinsically motivated, self-directed and driven by pragmatic reasons – working skills improvement, increasing self-confidence. Participant-satisfaction programme evaluations reveal that participants are highly motivated and ready to take an individualized approach to career building and planning.

The competency-based approach can hopefully bridge the gap between initially acquired competencies, labour market expectations and personal goals fostered by an integrative process of lifelong learning. The present challenge for the further organization of continuing education of librarians in Croatia is to identify and train a group of successful trainers who would base their teaching on learning outcomes harmonized with required competencies. The quality of all forms of education, continuing education included, depends on the quality of educators and they have to constantly improve not only their knowledge and skills, but also the methods of delivering knowledge.

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