Synergy of Managerial Competences in Academic Libraries and Information Literacy of Library Users

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Abstract. The competence profile required for academic libraries is based on different types and levels of competences necessary for their managers and librarians to complete various and complex tasks put in front of them by users and the social community. The demands made by users are directed at obtaining the highest quality of services in libraries, and can be met if the level of competences found in library managers and all employed librarians is adequate. Users expect their libraries to keep up with the ongoing changes and therefore it can be said that libraries emerge as places of continuous learning. The aim of this paper is to explore which competences library managers from South-eastern Europe find the most important for information literacy of library users.

Keywords: Delphi method, information literacy, librarian competences, academic libraries, library managers.

1 Introduction

This study aims to make a contribution to the efficiency of academic libraries and librarians regarding information literacy, as well as to gain a better understanding of the complexity and scope of the university library's competence profile. The assumption for this study is the identification of information literacy as an essential competency that managers of university libraries must have. The quality and success of information literacy education of users in university libraries depend upon the competence of the people in charge of the education process, who are library managers in most university libraries. The authors claim: defining the competencies of university library managers who implement information literacy education will enable setting up the competence framework or matrix for information literacy education carried out in university libraries and scaling the manager competencies necessary for information literacy will enable their evaluation and assessment.

2 International Frameworks for Librarian Competences and Information Literacy

In library and information sciences the definition of competence is used: to describe qualifications necessary for libraries and librarians, as a means for estimating the

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value of the library and librarians and as a starting point for educational programs. Librarian competence is usually defined by library associations as a set of requirements for professional, generic and personal competences of individual experts. The commonly accepted frameworks for defining competence in librarianship are: ALA's core competences of librarianship [1] that define the professional or competence profile of the American librarian. One of ALA's key sections for the encouragement and support of librarianship is RUSA, which issued the "Professional Competencies for Reference and User Services Librarian" [2]. CILIP [3] provides a competence profile of librarians and information professionals, while SLA published Competencies for Information Professionals of the 21st Century, focused on competences in special libraries [4]. CARL has created a study: Core Competencies for 21st Century librarians [5], while IFLA, through a range of projects and programs, emphasizes the importance of continuous identification of required librarian competences for the purpose of lifelong education, professional development and career advancement. According to the conclusions of the 79 IFLA conference "Future Libraries: Infinite Possibilities", the principle of "change as a constant" in the sense of continuous adjustment and modification of libraries and adjustment of the librarian's competences was given as a response to the emergence of new user and librarianship requirements, especially in terms of information literacy education. [6]

"The most commonly cited and used IL definition is the one adopted by the ALA, 1998: To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. The information literate individuals are those who have learned how to learn"[7]. IFLA's Section for Information Literacy has created International Guidelines on Information Literacy for Lifelong Education as a practical framework for creating information literacy programs. The guidelines, among other things, state that information literacy should become an integral part of the curriculum since it occurs on all educational levels. In the authors' country, one of the most important projects for librarians was the "CUK", lifelong education of librarians [8], which defined the initial national competence profile of the librarian profession. Mihalea Banek Zorica and Sonja Špiranec have made the biggest contribution in research of information literacy. They state that information literacy has its largest growth and momentum in higher education where the idea of information literacy originated. [9]

3 The Study

3.1 Objectives, Importance and Relevance of the Research

The objective was to present research which would determine the competences required for information literacy education as perceived by the experts in practice, the information literacy program providers. The competence testing in this research was limited to heads of academic libraries and heads of departments for information literacy in academic libraries, depending on the size and organisation of included

universities. The test sample included libraries from South-eastern European countries which did not have a competence profile of academic libraries defined on the national level, nor librarian competence in terms of information literacy education. The relevance of the research lies in the fact that up until now the emphasis of information literacy research was on users, and that there are no significant number of research studies found in the references directed towards information literacy educators.

3.2 Methodology and Sample

The Delphi method was chosen as the primary method, with the support of the questionnaire method and structured interview method. The quality of this method is in the organisation of the expert's knowledge and used for research areas which are hard to quantify. The experts do not affect each other nor do they communicate [10]. The main advantage of the Delphi method is obtaining data regarding the subject of research with organised agreement until reaching a final consensus and ignoring spatial obstacles. The main disadvantages of this method are: the moderator's and participant's subjective element. The most important disadvantage is the length of the research which can lead to the withdrawal of some participants or the absence of their answers in a particular iteration [11].

21 participants from six South-eastern European countries participated: Bosnia and Herzegovina (5), Montenegro (3), Greece (1), Croatia (8), Macedonia (2) and Serbia (2). At the beginning of the research, professionals to be included were selected, in this case heads of university libraries and heads of departments for information literacy in university libraries in South-eastern European countries. The research was mostly conducted online. The research objectives, methodology, estimated number of iterations as well as the timeframe of the research were explained, with an emphasis on anonymity. After that the pre-prepared questionnaire designed by the authors was sent to them. In the initial questionnaire a set of SLA competences important for heads of university libraries that carry out information literacy education, were included [12].

4 Findings and Discussion

Analysis of the participants according to their library work experience showed that 8 participants have been in the library profession between 16 and 20 years; another 8 work experience between 5 and 15 years. Regarding their professional and scientific position, the largest numbers of participants were graduate librarians (8) and senior librarians (6), followed by library advisors (3) as the highest rank in the library profession. Participants also had Master degrees of Information Sciences (3) and one participant was a librarian. The authors concluded that the participants made up a representative group of experts. Masters of Science, senior librarians and library

advisors make more than 70% of the sample. During the initial questionnaire the professionals were asked to choose and evaluate the competences on a scale from 1 to 5 (5 being the most important) and to suggest any other competences which were important in their opinion and to rate them the same way. Most participants chose and rated highly all the listed competences and quickly reached consensus.

4.1 Analysis 1

Table 1 shows a variation of the median, mode and standard deviation of the selected competences, which determined which of the competences were submitted into further iteration. The 1.st quartile was eliminated. Only 2 participants added new competences. Personal competence referring to the ability to maintain a balance between work, family and community obligations was eliminated since it was in the 1.st quartile.

The standard deviation shows great oscillation in responses, however, regarding the median and mode values there were no grounds to remove the competences which the participants rated poorly or did not rate at all.

4.2 Analysis 2

The participants rated the second iteration competences questionnaire using the Likert scale (strongly disagree, I disagree, I have no opinion, I agree, I strongly agree). The ability to add other competences was also offered. The experts were asked to revise their original choice and possibly correct their assessment and submit their opinions along with the corresponding argumentation. The participants were asked to rate each competency according to the scale as it was assumed that it would encourage active thinking rather than automatic evaluation of competences. One of the participants responded only in the first iteration.

The results in Table 2 were also analysed using statistical indicators. Median, mode and standard deviation variation of the selected competences showed that a consensus had been reached, which means that the experts had come to agreement. None of the competences was rated low, which means that in the lower quartile none of the competences were eliminated.

Basic competences were mostly graded as excellent according to the mode frequency. The participants completely agreed that the most important basic competence was understanding the value of upgrading existing knowledge and the willingness to share it with others. Also, most of the participants agreed that planning and executing various information literacy education programs and a high level of information literacy were key competences needed for heads of university library for information literacy. A small number of participants had no opinion on whether competences: intellectual property and copyright understanding (3 participants), developing the library information policies (2) and high ethical values in using information (1) should be included in the list of competences. The standard deviation

shows the highest dispersion for competences regarding pedagogical and psychological knowledge, competences which were also rated the lowest in average.

A smaller number of experts disagreed (3) that these competences were not needed for information literacy education.

Table 1. Questionnaire results after iteration 1

BASIC	*MEAN*	*MED*	*MOD*	*1.st QUAR*	*ST. DEV.*
high level of information literacy	4.57	5	5	5	1.2178
planning and executing various information literacy education programs	4.50	5	5	4	1.0911
advertising information services using the web, direct communication, presentations, publications and conversations	4.20	5	5	4	1.3310
understanding the value of upgrading existing knowledge and the willingness to share it with others	4.10	5	5	4	1.5087
high ethical values in using information	4.10	5	5	4	1.7155
developing the library information policies, especially regarding license purchasing for information related products and services	3.90	5	5	4	1.6875
intellectual property and copyright understanding	3.85	4	5	4	1.6410
pedagogical and psychological knowledge	3.60	4	5	3	1.3939
ability to do research work and present its results at conferences, in publications and through different forms of cooperation	3.60	4	5	4	1.8100
PROFESSIONAL					
readiness for continuous learning and improvement	4.50	5	5	5	1.3274
excellence in managing materials and information sources	4.45	5	5	4	1.1741
working with databases, indexing, metadata	4.20	5	5	4	1.4343
using technology to manage information services	4.20	5	5	4	1.4671
knowledge of bibliometrics, scientometrics	3.45	4	4	3	1.6177
knowledge of tools for measuring and analyzing literacy education results	3.40	4	5	3	1.9616
supports distance learning	3.30	4	5	3	1.9543
scientific productivity evaluation	3.20	4	4	3	1.8671
PERSONAL					
establishing effective communication among heads, employees and users	4.80	5	5	5	0.3904
ability to transfer knowledge	4.45	5	5	4	1.1329
team approach	4.45	5	5	4	1.2140
respect for diversity	4.30	5	5	4	1.4508
ability to determine priorities	4.20	5	5	4	1.4343
creativity and innovation	4.15	5	5	4	1.6117
creating partnerships	4.10	5	5	4	1.7155
optimism in change management	4.05	5	5	4	1.4630
willingness to take risks, overcome resistance to change	3.75	4	5	4	1.6584
ability to maintain a balance between work, family and community obligations	3.50	5	5	2	1.9881
career planning	3.45	4	4	3	1.5577

Table 2. Questionnaire results after iteration 2

BASIC	*MEAN*	*MED*	*MOD*	*1.st QUAR*	*ST. DEV.*
understanding the value of upgrading existing knowledge and the willingness to share it with others	4.71	5	5	4	0,4518
planning and executing various information literacy education programs	4.57	5	5	4	0.4949
high level of information literacy	4,57	5	5	4	0.5832
intellectual property and copyright understanding	4.43	5	5	4	0.6598
developing the library information policies, especially regarding license purchasing for information related products and services	4.38	4	5	4	0.6529
high ethical values in using information	4.35	4	5	4	0.6538
advertising information services using the web, direct communication, presentations, publications and conversations	4.19	4	5	4	0.8518
ability to do research work and present its results at conferences, in publications and through different forms of cooperation	4.14	4	5	4	0.7737
pedagogical and psychological knowledge	3.95	4	4	3	0.9500
PROFESSIONAL					
readiness for continuous learning and improvement	4.80	5	5	5	0.4000
working with databases, indexing, metadata	4.52	5	5	4	0.5871
using technology to manage information services	4.48	4	4	4	0.4994
excellence in managing materials and information sources	4.43	4	5	4	0.5832
knowledge of tools for measuring and analyzing literacy education results	4.05	4	4	4	0.7222
supports distance learning	4.00	4	4	4	0.8165
knowledge of bibliometrics, scientometrics	3.95	4	4	4	0.7854
scientific productivity evaluation	3.95	4	4	3	0.8438
PERSONAL					
establishing effective communication among heads, employees and users	4.71	5	5	4	0.4518
team approach	4.62	5	5	4	0.4856
ability to transfer knowledge	4.57	5	5	4	0.4949
respect for diversity	4.48	5	5	4	0.5871
creativity and innovation	4.48	5	5	4	0.5871
ability to determine priorities	4.24	4	4	4	0.6835
creating partnerships	4.29	4	4	4	0.5471
willingness to take risks, overcome resistance to change	4.19	4	4	4	0.7315
optimism in change management	4.05	4	4	4	0.7222
career planning	4.05	4	4	4	0.6529

Professional competences showed general agreement and gained high rates. The experts fully agreed that the most important professional competence was readiness for continuous learning and improvement. They also agreed that competences: working with databases, indexing, metadata, using technology to manage information services, excellence in managing materials and information sources and knowledge of tools for measuring and analyzing literacy education results were essential for information literacy education. For competences: knowledge of bibliometrics, scientometrics and scientific productivity evaluation, 5 participants believed they were not needed for information literacy education. This can be explained by the fact that academic librarians mostly work with students who make up the major users of their information literacy education services, and the fact that in some tested countries

librarians do not offer bibliometric services nor do they require expertise in evaluating scientific productivity. Some participants who provide bibliometric service believed that it was a job for scientists and that they should mainly evaluate scientific productivity since they need it more than libraries. Most of the participants still believed that the evaluation of scientific productivity was very important and that it was a way to recognise the quality of competent information experts in libraries.

As far as *personal* competences are concerned, the participants agreed that establishing effective communication among heads, employees and users, teamwork, ability to transfer knowledge, respect for diversity and creativity and innovation were the most important competences in information literacy education. The participants also agreed with other proposed personal competences, although some excluded optimism in change management (2) and career planning (3). This shows that some participants believed that competences directed towards users were more important than those directed towards themselves. On the other hand, we cannot present these results as a lack of interest in improvement and training, since the majority of participants have professional and scientific titles. In the last phase the participants were given a fully compliant list of competences ranked according to mean value obtained by the statistical analysis of the first iteration. They were asked to rate the competences from 1-5 (5 being the most important) regarding their own proficiency, thus performing a self-evaluation. The moderators assigned unrated competences grade 1 assuming that the participants did not possess a competence which they believed was unnecessary.

4.3 Analysis 3

Table 3 shows the results of the participant's self-evaluation in defining the competences list in relation to the conformed list. The number of who believed that some competences should be excluded and did not rate them is also listed participants.

The participants rated their *basic* competences for information literacy education quite high. They believed that they constantly upgraded their existing knowledge and shared it with others. They were aware of the high ethical values in using information; they believed they possessed a high level of information literacy. They used the Internet, direct communication, presentations and publication in advertising their information services. They developed the library's information policies, planned and executed various programs of information literacy education, and they were well aware of intellectual property and copyright. They evaluated their information literacy education programs as very good. According to the self-assessment, it can be concluded that heads of university libraries need to be educated in methodology and encouraged to participate in research and presentation of its results. Pedagogical and psychological knowledge were rated as good, which indicates that there is a need for their improvement.

Regarding their *professional* competences the participants believed they were open to continuous education and improvement. They found that they had a good knowledge of working with databases, using technology to manage information services and had a good knowledge of managing materials and information sources.

Distance learning support was also rated as good, but the knowledge of bibliometrics and scientific productivity evaluation was rated as average, and 5 to 6 people regarded them as unnecessary competences for heads of university libraries responsible for information literacy education. The fact is that librarians in some surveyed countries are not the providers of this type of service.

Personal competences were rated quite high. The experts stated that they were the best with competences of establishing effective communication among heads, employees and users, as well as the ability to transfer knowledge and respect diversity. A team approach, creativity and innovation were also rated high. The lowest rated competence was career planning, which means that heads of academic libraries should be further educated so that they are able to better plan their careers.

Table 3. Participants' self-evaluation results

BASIC	MEAN	MOD	NOT VALID.
understanding the value of upgrading existing knowledge and the willingness to share it with others	4.74	5	
high ethical values in using information	4.50	5	
high level of information literacy	4.29	5	1
advertising information services using the web, direct communication, presentations, publications and conversations	4.24	4	
developing the library information policies, especially regarding license purchasing for information related products and services	4.08	4	2
intellectual property and copyright understanding	4.03	4	3
planning and executing various information literacy education programs	4.03	5	
ability to do research work and present its results at conferences, in publications and through different forms of cooperation	3.84	5	1
pedagogical and psychological knowledge	3.74	5	3
PROFESSIONAL			
readiness for continuous learning and improvement	4.84	5	
working with databases, indexing, metadata	4.55	5	
excellence in managing materials and information sources	4.37	5	
using technology to manage information services	4.08	4	
knowledge of bibliometrics, scientometrics	3.47	4	5
supports distance learning	3.32	4	2
scientific productivity evaluation	3.47	4	6
knowledge of tools for measuring and analyzing literacy education results	3.11	4	1
PERSONAL			
establishing effective communication among heads, employees -and users	4.82	5	
ability to transfer knowledge	4.63	5	
respect for diversity	4.63	5	
team approach	4.58	5	
creativity and innovation	4.29	4	
ability to determine priorities	4.32	5	1
willingness to take risks, overcome resistance to change	4.29	5	2
creating partnerships	4.05	4	1
optimism in change management	4.05	5	2
career planning	3.66	4	3

5 Conclusion

The analyses of international commonly accepted frameworks and documents, various studies and available references show that there is no unanimous opinion regarding education and competence acquisition of librarians and information scientists. It is particularly interesting that neither on the international nor on the national level there are no defined competences of librarians working in higher education and university libraries.

Academic librarians are expected to be actively included in the education process, to have the knowledge and skills necessary for user instruction, knowledge of scientific communication, legislative bases of higher education, regulations on the choice of profession and scientific advancement, knowledge of bibliometrics, organising and managing institutional repositories, to participate in projects, research, analysis of scientific productivity in institutions and there many more demands. Up to now, these competences were not defined as academic librarian competences, nor was it completely clear whether librarians should know how to perform these tasks.

A list of academic librarian competences should serve as a basis for achieving greater efficiency in the information literacy instruction of users, as well as the education of heads of university libraries. It should not be an invariable document, but rather a basis for designing competences according to the needs of the society and institutions within which the libraries operate as well as the user's needs. The participants in the research quickly reached a consensus regarding the necessary competences. The results of the self-evaluation showed that the participants in the research felt most competent regarding personal competences, followed by basic and professional competences.

The importance of defining the competences of information literacy educators in academic libraries is that the results can be used as a starting point for further research resulting in a constant updating of formal and informal education programs, training and lifelong education of librarians. They also can help information literacy carriers to fill gaps in their personal competences and to find ways to improve them. After this preliminary research it is possible to continue the study using the same method, but to focus on scientists and experts from the library and information sciences, members of scientific institutions and heads of central departments of academic libraries. The results of this research could be used to describe the competences necessary for academic librarians and as a starting point for formal education, or at least as a starting point for lifelong education while accepting the environment's dynamics of change.

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