Roles and Practices of School Librarians in Digital Age: A Study from Croatia

Mihaela Banek Zorica, Zvjezdana Dukic
University of Zagreb, Faculty of Humanities and social sciences
Department of information and communication sciences,
Ivana Lucica 3, 10000 Zagreb, Croatia
mbanek@ffzg.hr, dana.dukic@gmail.com

Abstract

In Croatian school system it is prescribed by the law that every school should have a library and a professional librarian managing the library and serving the school community. School library is a part of the educational system and school librarian has to be involved in teaching and extracurricular activities. This research explores how school librarians in primary school in Croatia perceive their various roles and what roles related duties they perform in their daily practices. A survey was conducted on a sample of primary school librarians in Croatia and 122 valid responses were collected and analyzed for the purpose of this study. The study findings show that school librarians in primary schools perceive that promotion of students' reading is their most important role while teaching information literacy is less important. In their daily practices Croatian school librarians perform various duties related to reading promotion, administration of library, managing collections, supporting school curriculum and providing information services. Further they are engaged in teaching information literacy but they hardly use of technology for enhancement of library collections and services. Only a little more than half of study participants state that school principal and teachers understand their roles and support them in performing these roles. Further studies on roles of school librarians are recommended.

Key words: primary school librarians**,** roles, practices, Croatia

Introduction

One of the prerequisites for success of school library are competences of school librarian. First and foremost these are seen through educational background which in Croatian case needs to be a university degree in librarianship. Croatian Library law and Educational law prescribe that the position of school librarian should be filled with qualified or graduates with both library and teacher degree.

In Croatian school system it is prescribed by the law that every school is obliged to have a school library. The Law on Primary and Secondary Education (2003), stipulates that every school must have a school library emphasizing its role by defining it is as a "... part of the educational process in which professional library activities are conducted on a smaller scale usually serving the realization of the educational process ... it must be governed by rules laid down by the standards for school libraries." The Standard for school library prescribes the conditions that each library must meet regarding the space, collections and set of goals by utilizing three major activities: educational, cultural/public and professional. Furthermore, the

State educational standard (Državni pedagoški standard, 2008) stands as another document which defines the school library as a social space which is "... an integral part of the educational system, directly involved in teaching and extracurricular activities" specially emphasizing its need to " adapt to changes in the school education program and the emergence of new technologies". (Banek Zorica, Spiranec, 2011)

Furthermore, school librarians have prescribed percentage of their work: 60% teaching, 20% professional work, 20% cultural activities. Unfortunately, what school librarians identify as problematic is finding time in students' overloaded schedule for teaching. Currently there is no school librarian classes in schedules so their teaching is dependent on their collaboration with teachers. In the last decade Croatia her gone through several educational reforms last resulting in definition of primary school library program which is obligatory. Unfortunately, this program has not been updated and is obsolete. Currently, there is another educational reform (Cjelovita kurikularna reforma, 2015) on the way which integrates school librarians much more in the whole curricula. Therefore, the roles of school librarians and their program needs to be updated according to the new educational standards and digital environment challenges.

Position of school library in educational reforms

Previous reforms did only implicitly include school library in curriculum while this new curricular reform (Cjelovita kurikularna reforma, 2015) positions school library as integral part of educational process. This reform is next step after the National curriculum framework – NCF presented in 2007. The NCF derives from European documents and guidelines shifting educational focus towards set of competencies and learning outcomes in the effort to connect various mandatory and elective courses in one unique curriculum. By utilizing combination of subject courses and cross course topics together with set of competencies and learning outcomes it presents a new approach oriented towards students' educational goals and aims (Banek Zorica, Spiranec 2011). The key competences identified are:

1. communication on mother tongue
2. communication on foreign language
3. mathematical competence and basic competences in science and technology
4. digital competence
5. learning how to learn
6. social and civic competence
7. initiative and enterprenoual competence
8. cultural conciousness and expression.

The position of school librarian in these set of competence was not clearly seen but was implicit which created a complicated situation as it was left for each school to decide how to integrate school library in curriculum. The new curricular reform goes step forward and explicitly defines information literacy as one of the generic competences to be developed in students. Generic competence are not divided into three major columns:

- ways of thinking (problem solving and decision making, metacognition, critical thinking, creativity and innovation),
- ways of working and tools usage (communication, collaboration, information literacy, digital literacy and technology use)
- personal and social development (self-management, management of the educational and professional development, connecting with others, active citizenship).

This is actually the first time that the term information literacy is clearly stated in the documents. Hopefully these changes in the primary and secondary education will integrate school library in curriculum on a deeper level finally bringing school library as center of educational process. The question that these changes arise now is how will school librarians adapt and prepare themselves for the change. Therefore, the research of current situation in

school libraries serves as a good foundation of understanding current situation and creating future strategies and policies as well as education and training.

Related literature

There is a general agreement among researchers in school librarianship that these days school librarians play many distinct but interrelated roles. Traditionally, reading promotion has been considered as one of the core duties of school librarians (Glick, 2005; Hylen, 2005; Braxton, 2008; Fisher, 2008; Trinkle, 2009). But the rapid developments in educational technology place new demands on school libraries. School librarians become gradually engaged in teaching students how to locate, retrieve, evaluate and use information. Therefore, educational role of school librarians becomes increasingly important and widely recognized among researchers (Chu et al. 2009; De Groot and Branch, 2011; Warning et al., 2013; Lo et al., 2014; Gavigan and Curry Lance, 2015; Lupton, 2016). Chu et al. (2010) in an action research explored teacher librarians in information literacy teaching role and found that the level of students research skills improved thanks to teacher librarians' teaching role performance. A study by Lo et al. (2014b) examines the role of the school librarians as information literacy (IL) instructors in five countries: Hong Kong, Japan, Shanghai, South Korea, and Taipei. Warning et al. (2013) in their study investigate educational roles of teacher librarians in teaching information literacy, collaborating with teachers and promoting students' reading. A study by Lupton (2016) reports on school principals' perceptions of the roles of teacher-librarians and the findings show that principals value the teaching role of teacher librarians, their participating in curriculum and ICT expertise. Gavigan and Curry Lance (2015) also researched school principles' perspective on school librarians' contribution to teaching and learning and they provided a list of important roles: reading motivator, instructional resources manager, co-teacher, provider of staff professional development, teacher and technology instructor. Proficiency in new technologies as a core competency for teacher-librarians is also reported in a study by De Groot and Branch (2011). Research literature also indicate that school librarians are not always in position to fully implement their various roles in their practices. Major barriers perceived by school librarians are lack of time, funding and clerical staff including lack of interest and support from classroom teachers (McCracken, 2001).

Based on the research findings it can be concluded that the role of school librarians have noticeably expended. These days' school librarians perform roles of library and collection manager, information specialist, curriculum facilitator, educator and technology leader but sometimes they are unable to perform all these roles due to various barriers.

As Lupton suggests (2016), roles of school librarians differ internationally because of different qualification requirements and status of school librarians in different geographical locations. Therefore, conducting a research on school librarians' roles and duties performed in different countries would extend the knowledge about school librarianship.

Research questions

Major goals of this research are reflected in the following research questions:
RQ1. How do school librarians in Croatia perceive their roles?
RQ2. What library duties do they perform in their everyday work?
RQ3. Do the school principal and other teachers understand school librarians' roles and do they support school librarians in performing these roles?
RQ4. What barrier do school librarians experience in fulfilling their roles?

Methods

The research method used in this study is survey and data were collected with a questionnaire. The questionnaire contained 22 closed questions and 1 open question. Closed questions included factual questions and opinion questions. Likert scale of 5 levels was used for responses about roles perception and a scale of 3 levels was used for responses about school librarians' roles performance in their daily work. The questionnaire was administered by phone. The research population involved primary school librarians in Croatia. 122 valid responses were collected and analyzed for the purpose of this study. Data were analyzed by applying simple descriptive statistics.

Major limitation of this study is a small sample so the findings can't be generalized on the whole population of primary school librarians in Croatia. Another limitation of this study is that the questionnaire is designed by using a list of predetermined roles and related duties. Although there was in each question an "other" option for respondents to add additional information about roles and duties performed only a few provided roles or duties from their own perspectives and experiences. Therefore, based on the findings of this study further, more extensive research combining quantitative and qualitative data collection is recommended.

Findings and discussion

Sample characteristics

Some basic demographic characteristics of the research sample are presented in Table 1. Data from Table 1 show that participants in this research are predominantly female. All four age groups are represented in the research sample but the age group from 30 to 39 is represented in a highest percentage. Near 70% of research participants have working experience in school libraries of at least 6 years while 47% have been working in school libraries for 11 or more years.

Table 1: Demographic characteristics

Gender		Age		Working experience in school libraries	
Male	8%	Below 30	11%	Up to 5 years	31%
Female	92%	30 - 39	39%	6 – 10 years	22%
		40 - 49	22%	11 years or more	47%
		50 or above	28%		

Qualification and professional background of school librarians in Croatia

We can see that the almost all school librarians are educated in library science where majority had language and literature as a second major (Croatian language or other). Such orientation towards literature could also be partially explained by principals hiring policy where the majority still considers school library as a place for teaching literature.

educational background
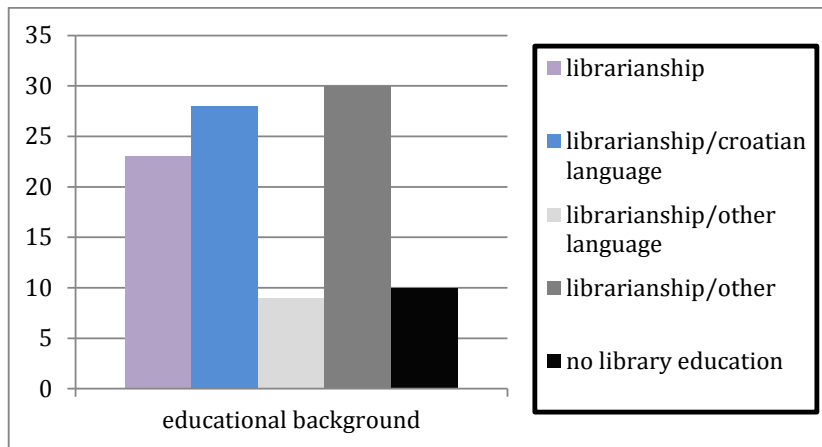
School librarians' roles perception

School librarians were asked to estimate the importance of various roles of school librarians in primary school environment. The roles of school librarians are described as follows:

- Administrative role – plan/develop library policies, budget, programs and communicate with school administration, teachers, parents, etc.
- Collection management role – build collections to meet curriculum objectives and students' interests
- Information specialist role - assist students and teachers to identify appropriate information resources through comprehensive reference services
- Reading promotion role - encourage reading for pleasure among students
- Curriculum facilitator role – enrich school curriculum by providing appropriate resources and incorporating information literacy instruction
- Teaching role – teach information literacy skills, collaboratively with teachers or independently
- Technology expert/leader role - promotes using new technologies for teaching & learning

Data from Table 2 show how primary school librarians in Croatia rate the importance of their various roles in primary school setting. Rating average is based on a 5 point Likert scale: 1. unimportant, 2. of small importance, 3. moderately important, 4. important and 5. very important. Reading promotion received the highest score indicating that most of the study participants perceive engagement in promotion of students' reading as their major duty. Administrative role follows and this indicates that school librarians participating in this research are the ones who are fully responsible for the functioning of their school library. Roles of information specialist and collection management follow next and these roles are fundamental for library functioning. It is interesting that teaching information literacy is estimated as less important then reading promotion and this finding indicates that Croatian school librarians are still not fully aware of importance of their teaching role. What particularly stands out in Table 2 is that technology expert role is estimated as much less important then other roles. Therefore, it seems that Croatian school librarians are still not fully aware of the importance of digital competencies in the context of new developments in modern librarianship.

Table 2: Perception of importance of school librarian's roles

Roles	Rating average
Reading promotion	4,84
Administrative duties	4,78

Information specialist	4,64
Collection management	4,59
Teaching information literacy	4,23
Curriculum facilitator	4,22
Technology expert/leader	3,87

School librarians' practices

School librarians in their daily practices perform various tasks that are related to the various roles that they carry out in their schools. Various activities that school librarians perform to fulfill roles mentioned above are analyzed and discussed. Data on school librarians' performing various role related tasks are presented by calculating a rating average for each task. Rating average is based on a 3 points rating scale: regularly (3), sometimes (2), never (1).

Table 3: Reading promotion

	Rating average
Organize author visits	2,65
Conduct book talks & reading aloud	2,49
Create reading lists for students	2,36
Arrange book displays, book fairs, exhibitions	2,32
Advice teachers about reading programs	2,17
Organize reading competitions	2,11
Develop the whole school reading program	1,91
Run a reading club for students	1,72
Organize a reading week	1,69
Encourage students' reading through social media (e.g. *Goodreads*, Facebook)	1,42

Most popular activities related to reading promotion carried out by Croatian school librarians are organizing author visits, book talks and reading aloud, while reading lists, book displays and exhibitions follow closely. It is interesting that reading lists and book displays/exhibitions are among most popular in the similar study by Lo *et al*. (2014a) conducted on secondary school librarians in East Asian countries. Social media are less popular and the reason might be that school librarians do not feel comfortable using social media with primary school students.

Table 4: Administrative duties

	Rating average
Plan & organize library events	2,80
Organize class library visits and lessons in library	2,73
Write annual report	2,70
Create & implement library mission, policies and procedures	2,64
Design the layout of library space	2,48
Inform school community about library programs & services	2,36
Manage school library budget	2,21
Evaluate library collections & services (based on users' needs.)	2,10
Research library users' needs (circulation statistics, surveys etc.)	2,08
Represent school library on meetings in school and outside school	1,94
Publish library newsletter	1,36

Croatian school librarians perform most of the tasks listed in Table 4. They regularly plan library events, organize class library visits, take care of library policies and procedures and write annual report. Less often they represent library on meetings inside or outside school and rarely publish library newsletter. It would be interesting to find out why school librarians do not attend meetings more often. Usually there are various meetings inside school where school librarians would represent school library (e.g. staff meetings, meetings with parents etc.) and for meetings outside school one would expect that librarians would attend at least meetings of school librarians' local association.

Table 5: Information specialist duties

	Rating Average
Provide simple information about library, collections and services	2,96
Advise teachers about appropriate resources for teaching	2,49
Provide information to teachers about news in library	2,43
Prepare teaching materials on teacher's request	2,38
Provide library orientation sessions for students	2,33
Advise students in selection of resources for projects	2,11
Make library resources use guides	1,69
Organize workshops for teachers on using electronic resources	1,49
Organize workshops for teachers about library collections & services	1,43
Provide library orientation sessions for new teachers	1,36
Develop reference tools (e.g. pathfinders)	1,29

According to data from Table 5. school librarians commonly give simple information about library collections and services to library users. They work closely with teachers to provide them with specialized information and resources for teaching purposes. Somewhat less frequently school librarians work with students by organizing orientations sessions and guiding them in selection of library materials for school projects. Workshops for teachers are not a popular activity among Croatian school librarians as well as creating library user guides or reference tools.

Table 6: Collection management duties

	Rating Average
Catalog & classify library materials	2,87
Make decisions about discarding library materials	2,77
Select & purchase resources to meet the needs of school & students	2,74
Collaborate with teachers in selection of library resources	2,72
Decision-making about library acquisition	2,70
Accept resources purchase requests from teachers and school principle	2,50
Manage resources for teacher's professional needs	2,31
Manage collections outside school library (e.g. classroom library)	1,82
Develop school repository of materials created by students & teachers	1,42

Data from Table 6. show that study participants regularly perform various tasks related to acquisition, weeding and processing of library collections. Less frequently study participants manage collections outside school library and develop repository of materials created in school by students and teachers. In acquisition processes school librarians collaborate with teachers.

Comparing school librarians' engagement in activities under four roles discussed above it is worth mentioning that perceived importance of the roles is not always associated with the frequency of tasks performed in related roles. Although the roles of administrator, information specialist and collection manager are estimated as less important then the reading motivation role school librarians are more active in performing various tasks related to the three less important roles.

Table 7: Information literacy teaching

	Rating Average
Plan and teach IL together with class teachers	2,43
Assist teachers to develop teaching activities for IL skills	2,13
Assist teachers in teaching information literacy	2,07
Plan and teach IL separately from subject teacher	2,05
Assess students in collaboration with subject teachers	1,73
Assess students separately from subject teacher	1,32

Since school librarians in Croatia all have both librarianship and subject teaching qualification it is expected that they would be frequently engaged in teaching information literacy in their schools. Findings presented in Table 7. show that school librarians most frequently teach information literacy skills together with classroom teachers or assist teachers in developing information literacy teaching activities. Less frequently they teach information literacy on their own. These findings go along with findings from the study by Lo et al. (2014b) showing that school librarians in East Asian countries more often assist teachers in teaching information literacy then teach it on their own.

Table 8: Curriculum facilitator duties

	Rating Average
Attend meetings of the school curricular committee	2,61
Contribute to school curriculum by integrating information literacy to curriculum	2,41
Collaborate with teachers to develop teaching units that integrate information literacy skills	2,23
Assist teachers to integrate information literacy skills in teaching plan and program	2,20

Even though study participants perceive curriculum facilitator role less important from all other roles except technology expert/leader role they actively take part in various curriculum related tasks (Table 8.). Croatian school librarians frequently attend meetings of school curriculum committee and are involved with integration of information literacy to curriculum. They work together with teachers in developing plan and program for teaching information literacy.

Table 9: Technology expert/leader

	Rating Average
Manage the library IT system	2,50
Develop & maintain a library webpage	2,15
Support the operation of computers and other equipment in the library	2,14
Assist teachers in the use of new technologies for teaching	2,03
Apply new technologies to enrich library collections & services	1,99
Serve on a school's technology planning team	1,72
Demonstrate and promote effective use of new technologies to	1,71

teachers	
Apply social media to promote school library	1,68

Study participants estimated the role of technology expert/leader as least important among all roles discussed and this opinion is also reflected in their daily practices in respect of their engagement with technology. Data from Table 9. show that school librarians in Croatia engage with technology mostly for tasks connected with the routine operations of library automated management system and to support the functioning of computers and other equipment in the library. Findings from the study by Lo *et al.* (2014b) are quite similar, showing that school librarians in East Asian countries apply their technology skills to run library systems and equipment. Another task related to technology expert role performed by Croatian school librarians that stands out is developing and maintaining school library webpage. Other tasks based on effective use of new technologies to enrich school library collections and extend traditional library services are rarely performed.

Support from school principle and teachers

School librarians can perform various library tasks related to their many roles more effectively when they have full understanding and support from school principle and classroom teachers. Table 10. shows that 64% of study participants feel that school principal and teachers understand their roles and support them in performing duties related to their roles and that only 4% do not feel this support. Surprisingly high percentage of respondents are neutral regarding support from school principle and teachers and further researching might help to understand this finding. Findings in our study is slightly different from findings in study by Lo et al. (2014a) which shows that school librarians from all East Asian regions involved, except from school librarians from Japan, feel that school principals understand their roles and support them more often then school teachers.

Table 10: Support from school principle and teachers

	Agree	Neutral	Disagree
Teachers in my school understand my role and support me in my work	64%	32%	4%
The principal in my school understands my role and supports me in my work	64%	32%	4%

Barriers to fulfilling the role of school librarian

Various factors may influence the fulfilling of school librarian's various roles. School librarians can be successful in performing their roles when they have enough funding, time, professional development opportunities and full understanding and support from the school community. Therefore, an opinion question about possible barriers to fulfilling their roles of school librarians was included in the questionnaire. Respondents were asked to estimate possible barriers to job fulfillment on a three point Likert scale: agree (3 points), neutral (2 points) and disagree (1 point). The rating average for each barrier is calculated and obtained scores are presented in Table 11. Data show that for study participants major barriers to fulfillment of their school librarian's roles are lack of funding for buying resources and equipment and lack of time. Lack of clerical support follows and it is closely connected to lack of time. Lack of interest and support from school principle and teachers are less frequently perceived as a barrier. These findings align with findings from the study by McCracken (2001) that was conducted with library media specialists in the United States.

Table 11. Barriers to school librarian's role fulfillment

Barriers	Rating Average
Lack of funding for library resources and equipment	2,72
Lack of time, too busy in the library	2,34
Lack of clerical support	1,96
Lack of interest and support from teachers	1.92
School principal and teachers do not understand school library's role in teaching and learning	1,74
Lack of interest and support from school principle (budget, scheduling, staff & resources)	1,71
Lack of additional training and professional development	1,67

Conclusions and recommendations

Based on the findings of this study it can be concluded that school librarians in primary schools in Croatia perceive the promotion of students' reading as their most important role. Teaching information literacy is perceived as less important indicating that teaching role of school librarians is not fully recognized. As explained in the introductory there are several factors causing such results and these will hopefully change with the implementation of new curriculum. It is also found that technology expert role is perceived as least important among different roles and this finding shows that Croatian primary school librarians are not fully acquainted with roles and responsibilities of school libraries in digital age. Further research might help to learn more about factor affecting primary school librarians' roles perceptions.

In their daily practices Croatian school librarians perform regularly many duties related to reading promotion, administration of library organization, managing collections, supporting school curriculum and providing information services. Regarding information service the findings show that school librarians rarely provide information sessions about library resources and services to teachers. Teaching information literacy is performed most frequently together with classroom teachers and often school librarians assist teachers in developing information literacy teaching materials. Less frequently school librarians teach information literacy on their own which again has it roots in the way teachers perceive librarians but also due to the lack of dedicated time in class schedules. Regarding their engagement with technology Croatian school librarian mostly perform routine operations connected to library automated management system and supporting library computers and other equipment.

Finding about major barriers that Croatian school librarians experience in performing their roles are lack of funding, time and clerical support and these findings correspond to the findings of other similar studies.

Further, study findings show that more than half of study participants think that school principal and teachers understand their roles and support them in performing these roles while one third of respondents are neutral regarding this. Further research is needed to learn more about this issue.

Researchers in school librarianship might benefit from this study by getting an overall insight in the roles and duties performed by school librarians in primary schools in Croatia. It is recommended to explore further the teaching and technology expert/leader roles of school librarians because these roles are extremely important for new developments in Croatian education system and school librarianship. It is also recommended to researchers to extend this research on secondary school librarians.

The value of this study for institutions and organizations in Croatia that are responsible for

school librarians' professional development is to learn about the professional needs of primary school librarians to be able to organize adequate training sessions for professional learning and advancement.

The major benefit of this study for practicing school librarians is to reflect on their various roles and duties that they perform day-to-day in their school libraries and to plan their professional development for acquiring new knowledge and skills that will enable them to fulfill their roles successfully.

References

Banek Zorica, M. and Spiranec, S. (2011). Incorporating information literacy in the Croatian school environment. *Proceedings of the 40th International Association of School Librarianship Annual Conference.* Kingston, Jamaica: IASL

Braxton, B. (2008). The teacher-librarian as literacy leader. *Teacher-Librarian*, 35(3), 22-26.

Chu, S. (2009). Inquiry project-based learning with a partnership of three types of teachers and the school librarian, *Journal of the American Society for Information Science and Technology*, 60 (8), 1671-1686.

Cjelovita kurikularna reforma. (2015). Retrieved May 20, 2013 from: http://www.kurikulum.hr

De Groot, J. and Branch, J.L. (2011). Looking Toward the Future: Competences for 21st-Century Teacher-Librarians. *Alberta Journal of Educational Research,* 57(3), 288-297.

Fisher, D. (2008). Struggling adolescent readers. *Teacher Librarian*, 35(3), 36-37.

Gavigan, K., & Curry Lance, K. (2015). Everybody's teacher: Administrators' and teachers' perceptions of school librarians. *Teacher Librarian*, 43 (1), 8-11.

Glick, A. (2005). Reading teacher, meet the librarian. *School Library Journal*, 51(6), 5.

Hylen, J. (2005). Help students and teachers become information literate. Teacher Librarian, 32(5), 22-24.

Lo, P., Dukic, D., Chen, J., Youn, Y, Hirakue, Y., Nakashima, M., & Yang, G. (2014a). Attitudes and self perceptions of school librarians in relation to their professional practices: a comparative study between Hong Kong, Shanghai, South Korea, Taipei, and Japan. School Libraries Worldwide, 20 (1), 52-69.

Lo, P. , Chen, J. , Dukic, Z. , Youn, Y.-R. , Hirakue, Y. , Nakashima, M. and Yang, G. (2014b), "The roles of the school librarians as information literacy specialists: a comparative study between Hong Kong, Shanghai, South Korea, Taipei and Japan", *New Library World*, 115 (7/8), 314-338.

Lupton, M. (2016). Adding Value: Principals' Perceptions of the Role of the Teacher-Librarian. *School Libraries Worldwide*, 22(1), 49-61.

McCracken, A. (2001). School library media specialists' perceptions of practice and importance of roles described in information power. *School Library Media Research, 4*. Retrieved May 20, 2013, from http://www.ala.org/aasl/aaslpubsandjournals/slmrb/slmrcontents/volume42001/mccracken

Trinkle, C. (2009). Reading for meaning: making connections and searching for answers. *School Library Media Activities Monthly*, 25 (6), 48-50.

Warning, P., Chan, R.C.H., Ma, B.H.Y., Chu, S.K.W. & Wu, W.W.Y. (2013). The educational roles of primary and secondary school teacher-librarians in Hong Kong. Paper presented at the *42th International Association of School Librarianship 2013 Conference*, Bali, Indonesia. IASL Conference Reports, 2013, p. 377

Biographical note

Dr. Mihaela Banek Zorica is an associate professor and Chair of the Media and communication at the Department of Information and Communication Sciences teaching at the undergraduate, graduate and postgraduate level. Her research interests are school libraries, e-learning, new media and knowledge organization. She has participated on international and national conference either as an author, reviewer, member or a chair of the organization/ program committee. In 2010. she received an e-learning award from the University of Zagreb for the best utilization of social media in e-learning and the IASL annual award. She is a member of the ENSIL foundation board (Stichting ENSIL - European Network for School Libraries and Information Literacy) and vice-president of the IASL.

Dr. Zvjezdana Dukic holds a PhD in Library and Information Science from the University of Zagreb, Croatia. She worked in academic, special and school libraries in Croatia, United Kingdom and Hong Kong. She also taught courses in the area of library and information management at The University of Hong Kong. Presently she is a part-time lecturer at the Department of Information Sciences, University of Zagreb. Her research interests focus on application of new technologies in library services and users' education. She has been giving presentations in many international conferences, published papers in international journals and also received several international awards for her work in school libraries in Hong Kong.